2006 Freeway Management Survey

SURVEILLANCE

1. **Total number of freeway centerline miles with real-time traffic data collection technologies (DOES NOT INCLUDE CCTV):**

2. **Total number of freeway centerline miles with real-time traffic data collection technologies (INCLUDES CCTV) used to monitor key transportation facilities for security purposes operated by your agency:**

3. **Total number of freeway traffic surveillance detector stations deployed by your agency:**

4. **Total number of vehicle probe readers deployed by your agency:**

RAMP CONTROL

5. **Total number of ramps with ramp metering capability operated by your agency:**

6. **Total number of metered ramps with priority access capability for transit vehicles operated by your agency:**

7. **Total number of metered ramps with preemption access capability for emergency vehicles:**

8. **Total number of ramps with automated ramp closure capability operated by your agency:**

9. **Does your agency deploy automated enforcement technologies to assist with the enforcement of ramp metering compliance?**
   Yes
   No

LANE MANAGEMENT

10. **Total number of freeway centerline miles under lane control:**

11. **Total number of freeway High Occupancy Vehicle (HOV) centerline miles equipped with automated lane management technologies (e.g., sensors detecting the traffic conditions support the use of dynamic message signs and moveable barriers (e.g., gates) to control the operation of HOV facilities) operated by your agency:**

12. **Total number of freeway 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:**

13. **Total number of freeway 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:**

14. **Total number of freeway centerline miles equipped with lane control signs, supported by surveillance and detection technologies, to allow the temporary closure of lanes by your agency:**

15. **Total number of freeway centerline miles equipped with variable speed limit technologies operated by your agency:**

16. **Total number of freeway centerline miles equipped with lane management measures such as reversible flow lanes and lane control to support emergency evacuations operated by your agency:**

17. **Does your agency deploy automated enforcement technologies to enforce High Occupancy Vehicle (HOV) restrictions on freeways?**
    Yes
    No

18. **Does your agency deploy speed enforcement technologies on freeways?**
    Yes
    No

INFORMATION DISSEMINATION

19. **Please check all the methods that your agency uses to distribute information to the public**
    Dedicated cable TV:
    Automated telephone system:
    Internet Web sites
    Pagers or personal data assistants:
    Interactive TV:
    Kiosks:
    E-mail or other direct PC communication:
    In-vehicle navigation systems:
    Cell phone/automated voice:
    Facsimile:
    Video feed to media:
    Do not distribute information:

20. **Please check all the types of information that your agency distributes to the public**
    Freeway travel times:
    Freeway travel speeds:
    Incident information:

21. **Which of the following technologies does your agency use to distribute pre-trip traveler information for freeways? (Check all that apply)**
    - Internet or wireless systems
    - 511
    - Other (non-511) telephone systems
    - TV / Radio
    - Kiosks

22. **Which of the following technologies does your agency use to distribute en-route traveler information for freeways? (Check all that apply)**
    - Wireless systems
    - 511
    - Other (non-511) telephone systems
    - Radio
    - In-vehicle systems

23. **Number of centerline miles covered by Highway Advisory Radio (HAR):**

24. **Is your Highway Advisory Radio (HAR) used to broadcast freeway incident information?**
    - Yes
    - No

25. **Total number of Permanent DMS deployed on freeways:**

26. **Total number of Portable DMS deployed on freeways:**

27. **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

TOURISM AND EVENTS

28. Does your agency deploy tourism information traveler systems that focus on the needs (i.e., electronic yellow pages, incorporating lodging reservations systems and directions to points of interest) of travelers in areas unfamiliar to them?

Yes
No

29. Does your agency deploy parking management systems that provide availability status and directional guidance posted on dynamic message signs at major tourism destinations?

Yes
No

30. Does your agency deploy electronic payment systems (i.e., magnetic stripe cards, smart cards, or similar technologies) to facilitate traveler's payment for travel and other services at tourist destinations?

Yes
No

31. Please indicate whether your agency deploys portable transportation management systems to control the impact of congestion at the following locations hosting special events:

Locations hosting FREQUENT special events (These systems may have some permanently installed components [e.g. DMS, sensors])

Yes
No

Locations hosting OCCASIONAL special events

Yes
No

Locations hosting ONE-TIME or UNUSUAL events

Yes
No

INTEGRATION

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

Yes
No
No toll

33. Does your agency receive, in real-time, incident information (e.g., clearance activities, type, severity, etc.) from any Public Safety agency?

Incident clearance:

Yes
No

Incident severity and type:

Yes
No

34. Does your agency provide, in real-time, incident information (e.g., type, severity, etc.) and/or freeway information(e.g., travel times, speed, and conditions) to the following types of agencies?

	Incident information (e.g., type, severity, etc.)	Freeway information (e.g. travel times, speed, and conditions)
Freeway Management Agencies:	Yes/No	Yes/No
Arterial Management Agencies:	Yes/No	Yes/No
Public Transit Agencies:	Yes/No	Yes/No
Public Safety Agencies:	Yes/No	Yes/No

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

CCTV cameras
Ramp meters
Dynamic message signs
Highway Advisory Radio
Lane Control Signals

36. 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

INCIDENT MANAGEMENT

Please provide the miles covered by the following incident detection/verification methods.

37. Free cellular phone call to a dedicated phone number other than 911

38. Computer algorithms

39. Call boxes

40. CCTV

41. Total number of CCTV cameras deployed on freeways

42. Are the images from your CCTV cameras available to the public?

Yes
No
No CCTV

43. **Please indicate which of the following methods your agency uses to detect freeway incidents. (Check all that apply)**
    - Inductive loop or acoustic roadway detector technologies
    - Wireless enhanced 911 systems
    - Mayday or Advanced Crash Notification (CAN) systems
    - Traveler reported information

44. **Total number of freeway centerline miles patrolled by service patrols**

45. **Total number of vehicles operated by the service patrols**

46. **Does your agency use video imaging to assist with data collection at freeway 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 freeway 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.**

ITS Standard	Using	Considering
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)		
IEEE 1512 – Family of Standards for Incident Management Message Sets (http://www.standards.its.dot.gov/fact_sheet.asp?f=12)		
SAE J2354 – Message Set for Advanced Traveler Information System (ATIS) (http://www.standards.its.dot.gov/fact_sheet.asp?f=54)		
APTA TCIP Dialogs – Transit Communications Interface Profile (http://www.standards.its.dot.gov/StdsSummary.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 Transportation Management Center (TMC) or Traffic Operations Center (TOC)?

Yes, Center name:

No

Please answer questions 51 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)
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

54. Does your agency deploy temporary Traffic Management Centers (TMCs) or satellite locations for existing TMC to control the impact of congestion associated with special events?

Yes
No

55. 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):

56. **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

57. **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):

58. **Approximately what percentages of the following funding sources are used to finance ongoing TOC/TMC operations?**
    - % Local (Including toll revenue)
    - % State
    - % Federal
    - % Private
    - % Other(please specify):

59. **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

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

61. **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.**

Rules and regulations
Contract disputes and claims
Intellectual property
Liability
Privacy
Other (please specify):

62. **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.**

College outreach
Advertising in local media
Recruiting services
Notices in trade publications
Other (please specify):