Tracking the Deployment of the Integrated Metropolitan ITS Infrastructure in Los Angeles, Anaheim, Riverside

FY99 Results

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Part 1 - Background and Purpose

In January 1996, Secretary Peña set a goal of deploying the integrated metropolitan Intelligent Transportation System (ITS) infrastructure in 75[1] of the nation's largest metropolitan areas by 2006:

> *"I'm setting a national goal: to build an intelligent transportation infrastructure across the United States to save time and lives, and improve the quality of life for Americans. I believe that what we do, we must measure . . . Let us set a very tangible target that will focus our attention . . . I want 75 of our largest metropolitan areas outfitted with a complete intelligent transportation infrastructure in 10 years."*[2]
>
> -- *Secretary Peña, 1996*

In 1997, the U.S. Department of Transportation initiated an effort to track progress toward fulfillment of this goal by conducting a survey of deployment in the nation's largest metropolitan areas. Traditionally, the product of a transportation infrastructure investment consists of a fixed asset such as a highway, bridge, or public transportation vehicle developed, constructed, or purchased by a single agency. Tracking the level of deployment for such traditional fixed assets can be accomplished by simply counting the number of such assets deployed. Measuring the deployment of the metropolitan ITS infrastructure is more complex because it consists of a set of systems, often deployed by multiple agencies, and integrated through a combination of complex institutional and technical arrangements. In brief, it is often difficult to simply count the number of systems deployed without first devising a measurement approach that captures the essential features of such systems in a consistent fashion across many deployment environments.

In order to track progress toward fulfillment of the Secretary's goal for deployment, the U.S. Department of Transportation ITS Joint Program Office developed the metropolitan ITS deployment tracking methodology. This methodology tracks deployment of the nine components that make up the Metropolitan ITS infrastructure: Freeway Management; Incident Management; Arterial Management; Emergency Management; Transit Management; Electronic Toll Collection; Electronic Fare Payment; Highway-Rail Intersections; and Regional Multimodal Traveler Information. Through a set of indicators tied to the major functions of each component, the level of deployment is tracked for the nation's largest metropolitan areas. In addition, the integration links between agencies operating the infrastructure are also tracked. The details of

[1] Since Secretary Peña's speech, the number of metropolitan areas that DOT will measure has been increased from 75 to 78. However, to maintain reporting consistency across the 10-year goal period, this report considers only the original 75 metropolitan areas.

[2] Excerpt of a speech delivered by Secretary of Transportation Peña at the Transportation Research Board in Washington, DC on January 10, 1996.

the methodology are explained elsewhere.[3]

During the summer and fall of 1999, the U.S. DOT undertook a new data collection effort for the purpose of examining ITS deployment progress in the nation's largest metropolitan areas. The Los Angeles, Anaheim, Riverside metropolitan area was among the areas surveyed in 1997 and again in 1999. This report presents the results of the 1999 survey efforts and compares the results of the 1997 survey against those observed in 1999. The overall response rate for the surveys administered in the Los Angeles, Anaheim, Riverside region was 80% in 1997 and 79% in 1999.

Part 2 contains a summary of the 1999 survey results, and Part 3 provides a comparison of 1999 survey results and the 1997 survey results.

The report also contains a set of appendices containing a map of the survey area, the list of local contacts surveyed along with a status of their response to the survey and a summary of the data collected from the surveys.

Agencies are encouraged to review the data presented in this report for completeness and accuracy and to direct any comments or corrections to the data provided to the contacts listed below:

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[3] Additional Resources: "Measuring ITS Deployment and Integration" (Electronic Document Number: 4372). U.S. Department of Transportation, Joint Program Office for Intelligent Transportation Systems, 400 Seventh St., SW (HVH-1), Washington, DC 20590, Phone: 202-366-9536, Fax: 202-366-3302, Web: http://www.its.dot.gov.

Part 2 - Summary 1999 Survey Results

Deployment indicators have been developed for two broad areas of interest: (1) the individual components, including their basic functions and characteristics and (2) integration of components, including how these components work together to provide coordinated regional service. As mentioned earlier, these indicators are expressed as percentages of the possible deployment opportunity and not necessarily what should be deployed based on local needs. Requirements for deployment and integration between each component will vary based on local conditions and cannot be assigned without extensive coordination with individual metropolitan areas.

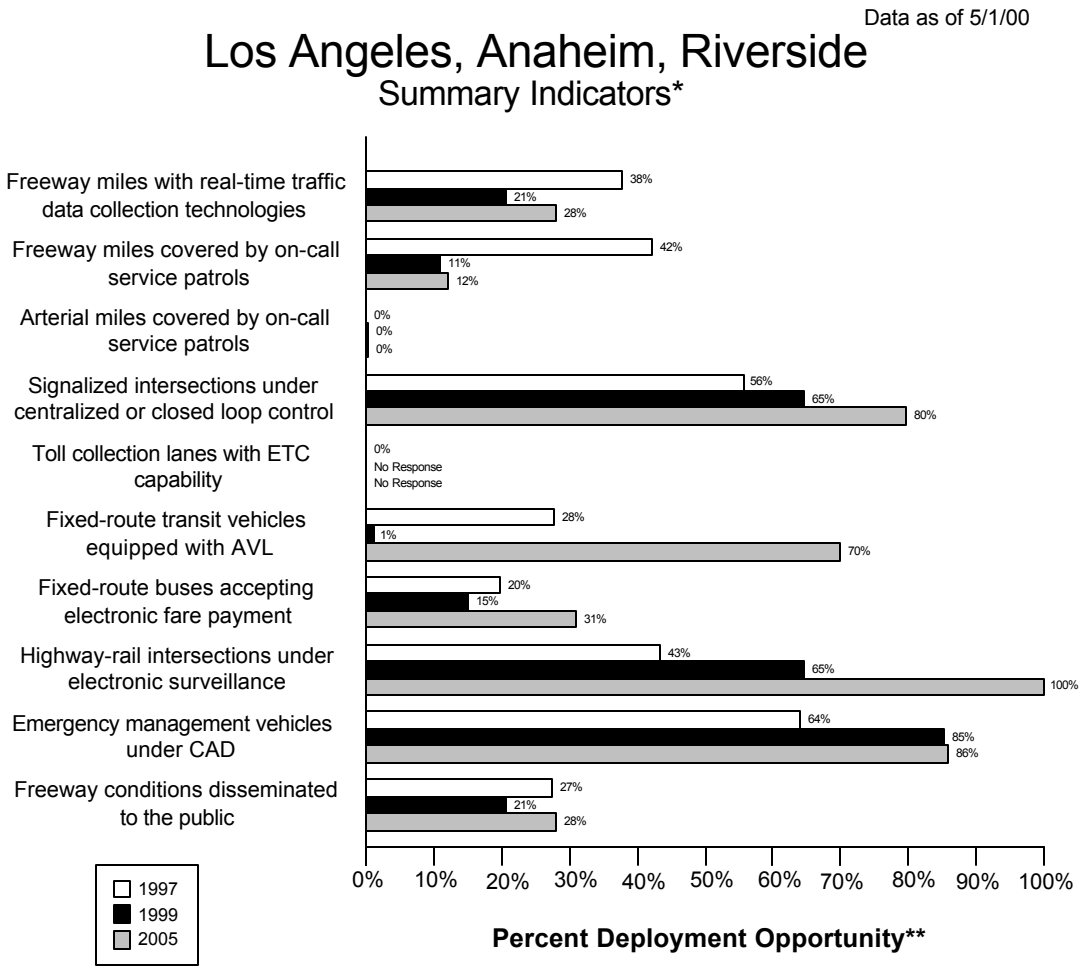
The following two figures portray the surrogate indicators for each of the nine components in Los Angeles, Anaheim, Riverside and the same indicators at the national level. These are judged to be the single best representative of a component and are being used as summary indicator for component. The summary indicators are expressed as a percentage; however, because deployment goals have yet to be established, these indicators should not be read as a comparison of what is deployed versus eventual deployment goals. Instead, they only reflect what is deployed compared to full market saturation (i.e., opportunity for deployment).

Each component indicator was selected to reflect a critical function of the individual components. For example, in the case of Freeway Management, three basic functions were defined: surveillance, traffic control, and information display. The three indicators developed to reflect these functions are: percentage of freeway centerline miles under electronic surveillance (surveillance function), percentage of freeway entrance ramps managed by ramp meters (traffic control function), and percentage of freeway centerline miles covered by permanent VMS, HAR, or in-vehicle signing (information display function). The indicators are surrogates that do not necessarily reflect the full breadth of metropolitan ITS deployment activity.

A critical aspect of ITS that provides much of its capability is the integration of individual components to form a unified regional traffic control system. Individual ITS components routinely collect information that is used for purposes internal to that component. For example, the Arterial Management component monitors arterial conditions to revise signal timing and to convey these conditions to travelers through such technologies as variable message signs and highway advisory radio. Other ITS components can make use of this information in formulating their control strategies. For example, Transit Management may alter routes and schedules based on real-time information on arterial traffic conditions, and Freeway Management may alter ramp metering or diversion recommendations based on the same information.

As with the component indicators, definitions for inter- and intra-component integration were developed for each component, and indicators, derived from these definitions, were produced for each component. A total of 34 individual integration indicators was specified and is portrayed in the third figure which follows. Each integration indicator has been assigned a number and an origin/destination path from one ITS infrastructure component to another. For example, the

integration of information from the Freeway Management component to the Regional Multimodal Traveler Information component is identified by the number "10."

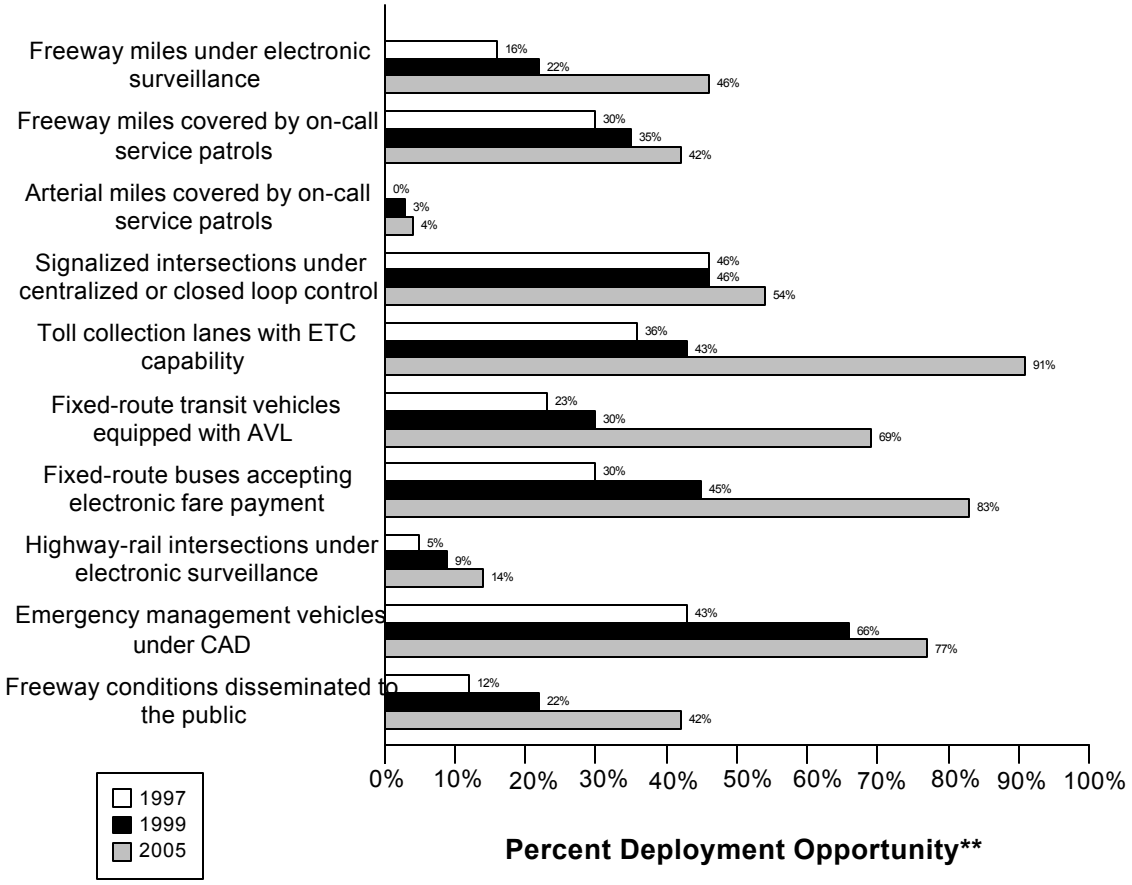


* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity.
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

Data as of 5/1/00

National

Summary Indicators*



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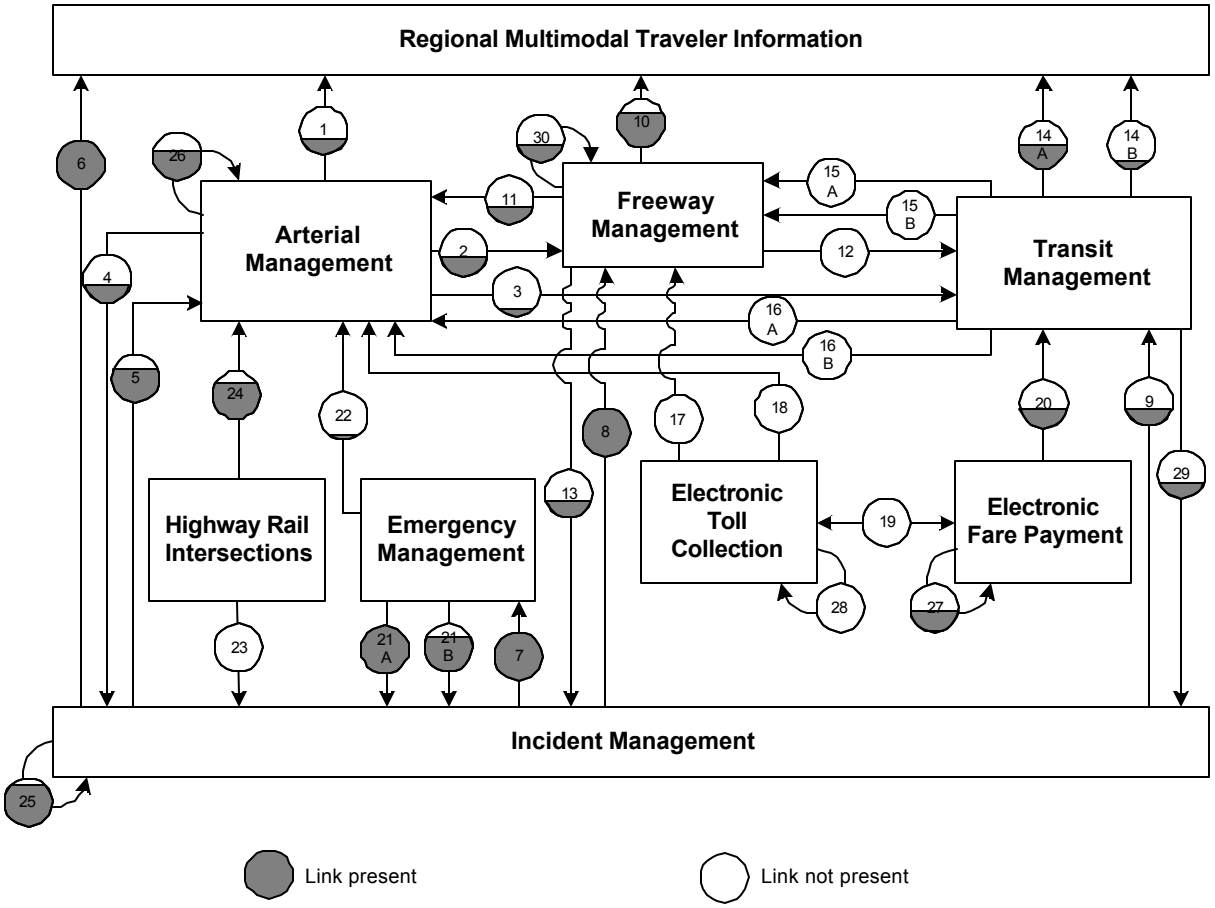
Los Angeles, Anaheim, Riverside Integration Links



Note: Shading indicates the value of the link. For example a circle half shaded equals 50%

Link	Description	Link	Description
1	Arterial Management to Regional Multimodal Traveler Information	2	Arterial Management to Freeway Management
3	Arterial Management to Transit Management	4	Arterial Management to Incident Management
5	Incident Management to Arterial Management	6	Incident Management to Regional Multimodal Traveler Information
7	Incident Management to Emergency Management.	8	Incident Management to Freeway Management
9	Incident Management to Transit Management	10	Freeway Management to Regional Multimodal Traveler Information
11	Freeway Management to Arterial Management	12	Freeway Management to Transit Management

Link	Description	Link	Description
13	Freeway Management to Incident Management	14a 14b	Transit Management to Regional Multimodal Traveler Information (static route information) Transit Management to Regional Multimodal Traveler Information (schedule adherence information)
15a 15b	Transit Management to Freeway Management Transit Management to Freeway Management (transit vehicle probes)	16a 16b	Transit Management to Arterial Management Transit Management to Arterial Management (transit vehicle probes)
17	Electronic Toll Collection to Freeway Management (ETC equipped probes)	18	Electronic Toll Collection to Arterial Management (ETC equipped probes)
19	Electronic Fare Payment and Electronic Toll Collection	20	Electronic Fare Payment to Transit Management
21a 21b	Emergency Management to Incident Management (incident notification) Emergency Management to Incident Management (incident clearance)	22	Emergency Management to Arterial Management
23	Highway-rail intersections to Incident Management (crossing status)	24	Highway-rail intersections to Arterial Management (crossing status)
25	Incident Management intra component	26	Arterial Management intra component
27	Electronic Fare Payment intra component.	28	Electronic Toll Collection intra component
29	Transit Management to Incident Management (incident reporting)	30	Freeway Management intra component

Part 3 - Detailed 1999 Survey Results

The following figures and tables summarize the complete set of component and integration indicators developed for the Los Angeles, Anaheim, Riverside metropolitan area. The figures summarizing the component indicators consist of a bar chart portraying the deployment levels for 1997, 1999, and 2005 accompanied by detailed tables of the data used to calculate each component indicator value (*Num* stands for numerator and *Den* stands for denominator; blank space indicates that no response was received.)

Example: Calculating Component Indicators for Freeway Management

Consider a metropolitan area with 100 miles of freeway and 25 freeway entrance ramps. The area has no ramp meters, 10 freeway miles for which traffic data are collected electronically, and 5 freeway miles, which are covered by highway advisory radio.

The component indicator for electronic surveillance is calculated as (10/100) or 10%.

The component indicator for ramp meter control is calculated as (0/25) or 0%.

The component indicator for HAR coverage is calculated as (5/100) or 5%.

The summary indicator for the metropolitan area is calculated as (10%+0%+5%)/3 = 5%.

The figures summarizing the integration indicators consist of a diagram for each of the nine metropolitan ITS components portraying the integration level for 1999 (*italic*) and 2005 (**bold**), accompanied by tables providing an explanation of the data and calculations performed to develop each integration indicator value for 1999 and 2005. Each diagram portrays the proportion of agencies providing information to a component (e.g., the flow of incident information from Incident Management to Freeway Management) and the proportion of agencies providing information from one component to other components (e.g., the flow of freeway travel condition information from Freeway Management to Arterial Management).

Example: Calculating Integration between Arterial Management and Regional Multimodal Traveler Information

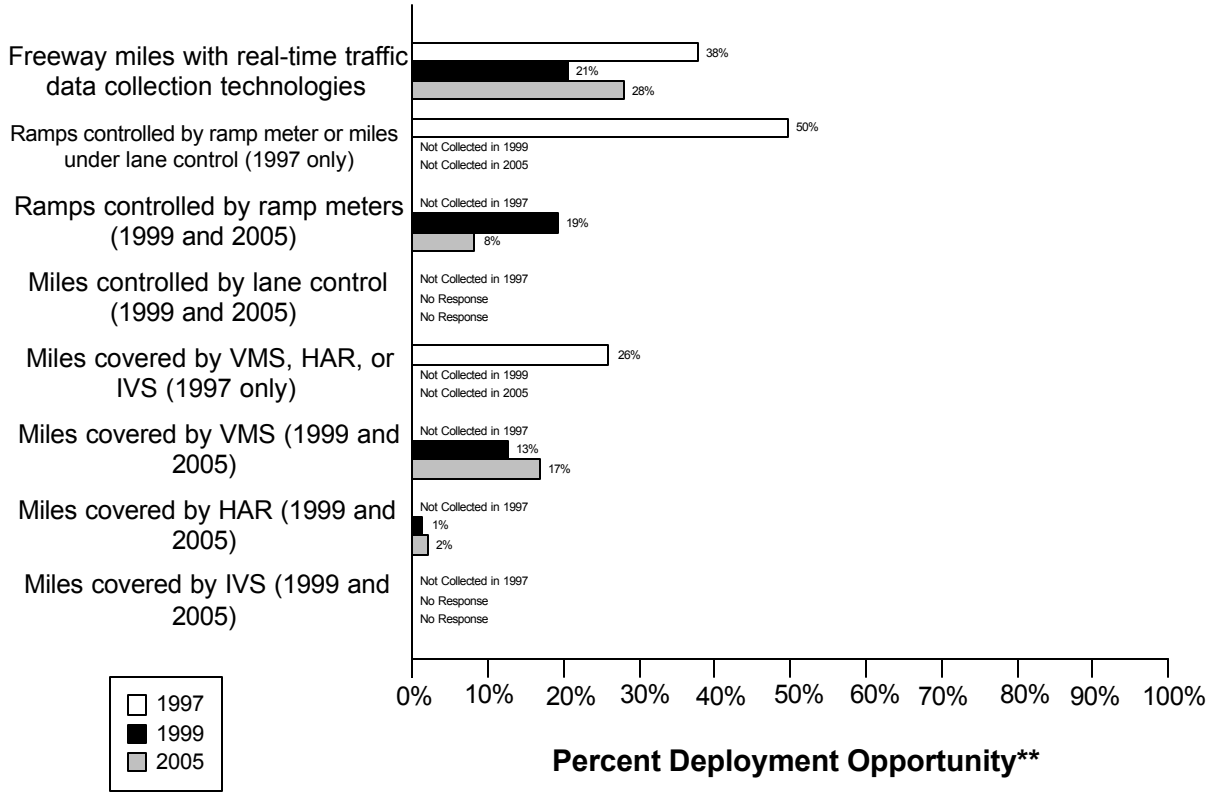
Consider a metropolitan area with three arterial management agencies. One out of three provides information to the public using a Regional Multimodal Traveler Information Media (e.g., internet, kiosk, pager, etc...). The integration indicator is 1/3 or 33%.

Freeway Management Component Indicators

Data as of 5/1/00

Los Angeles, Anaheim, Riverside

Freeway Management*



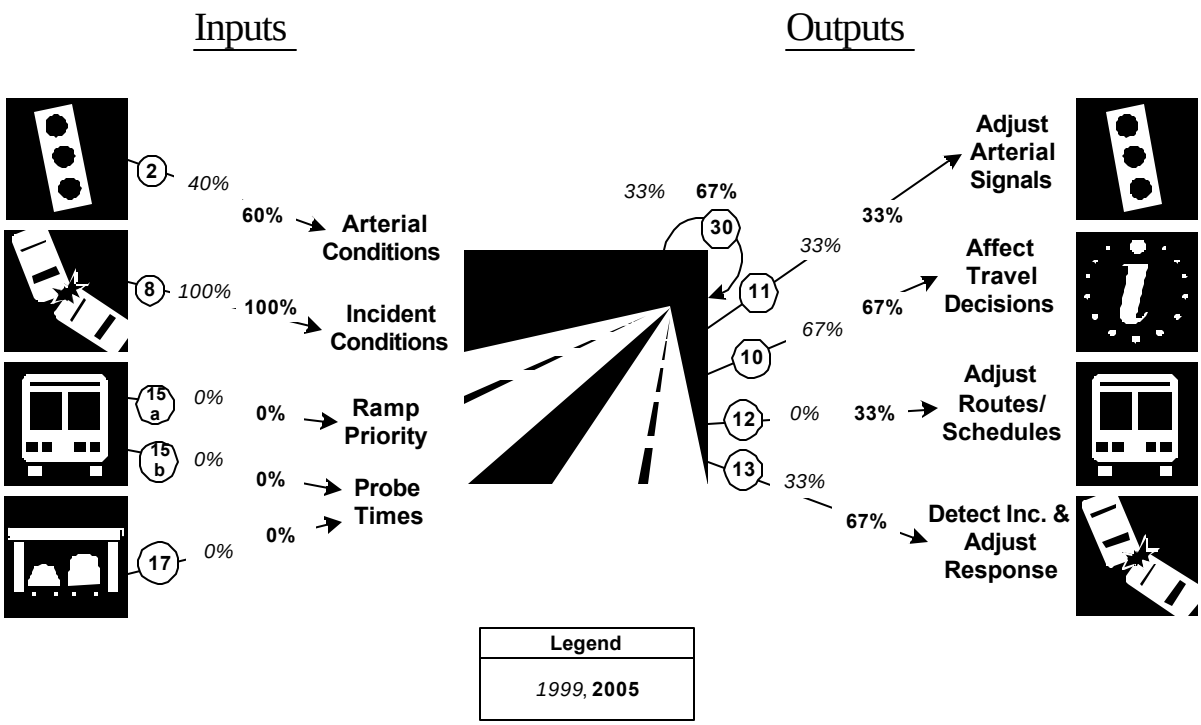
* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity.
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Freeway centerline miles are under electronic surveillance for monitoring traffic flow	540	1427	38%	294	1427	21%	400	1427	28%
Freeway entrance ramps are controlled by ramp meters or miles under lane control	1199	2410	50%						

Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Freeway entrance ramps are controlled by ramp meters				466	2410	19%	200	2410	8%
Freeway centerline miles will be controlled by lane control					1427			1427	
Freeway miles are covered by VMS, HAR, or IVS	371	1427	26%						
Freeway miles are covered by VMS				182	1427	13%	242	1427	17%
Freeway miles are covered by HAR				20	1427	1%	30	1427	2%
Freeway miles are covered by IVS					1427			1427	

Freeway Management Integration Indicators

Los Angeles, Anaheim, Riverside
Freeway Management Integration*



* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
2. Arterial Management agencies sending information to Freeway Management	(6/ 15) 40%	(9/ 15) 60%
8. Incident Management agencies sending information to Freeway Management	(3/ 3) 100%	(3/ 3) 100%
15a. Transit management agencies with vehicles equipped with ramp meter priority	(0/ 17) 0%	(0/ 17) 0%
15b. Transit Management agencies with vehicles equipped as probes	(0/ 17) 0%	(0/ 17) 0%
17. Freeway Management agencies receiving freeway conditions from vehicle probes	(0/ 3) 0%	(0/ 3) 0%
30. Freeway Management agencies sending information to another Freeway Management agency	(1/ 3) 33%	(2/ 3) 67%
11. Freeway Management agencies sending information to Arterial Management	(1/ 3) 33%	(1/ 3) 33%

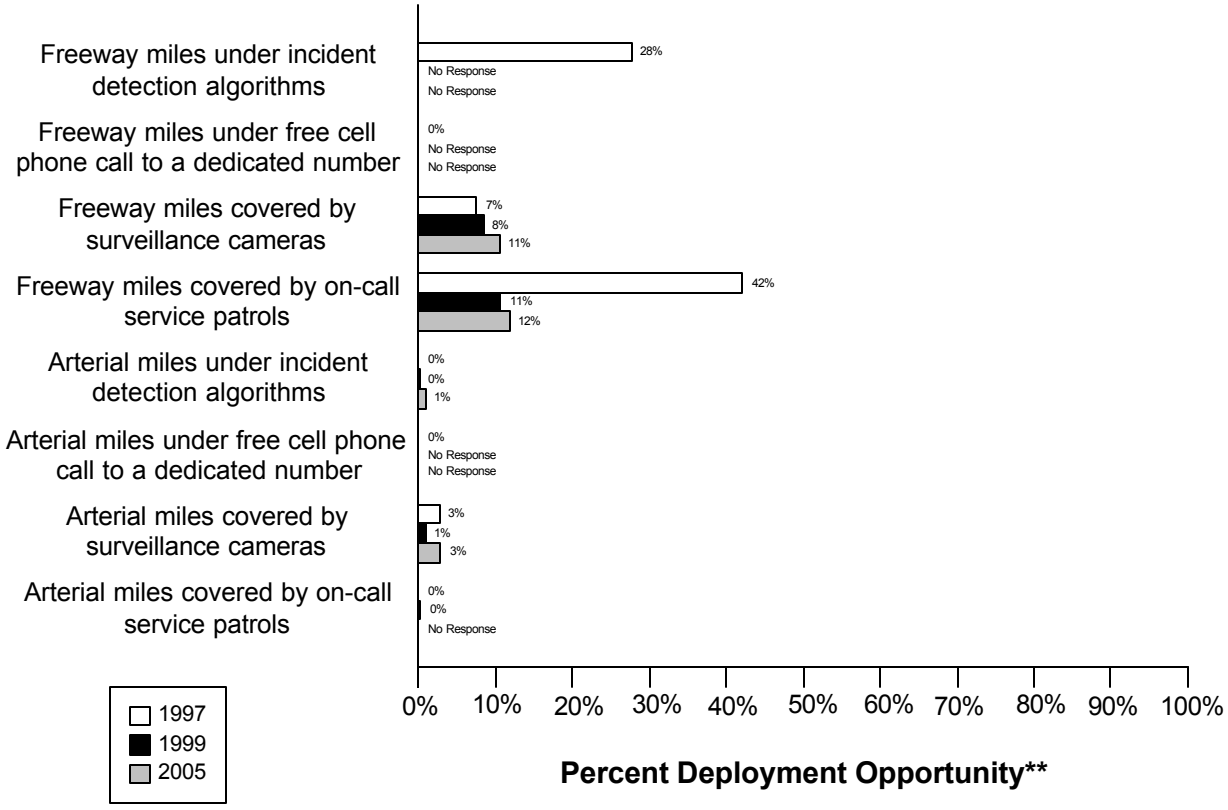
Link Description	1999	2005
10. Freeway Management agencies disseminating freeway conditions to the public	(2/ 3) 67%	(2/ 3) 67%
12. Freeway Management agencies sending freeway conditions to Transit Management	(0/ 3) 0%	(1/ 3) 33%
13. Freeway Management agencies sending freeway conditions to Incident Management	(1/ 3) 33%	(2/ 3) 67%

Incident Management Component Indicators

Data as of 5/1/00

Los Angeles, Anaheim, Riverside

Freeway and Arterial Incident Management*



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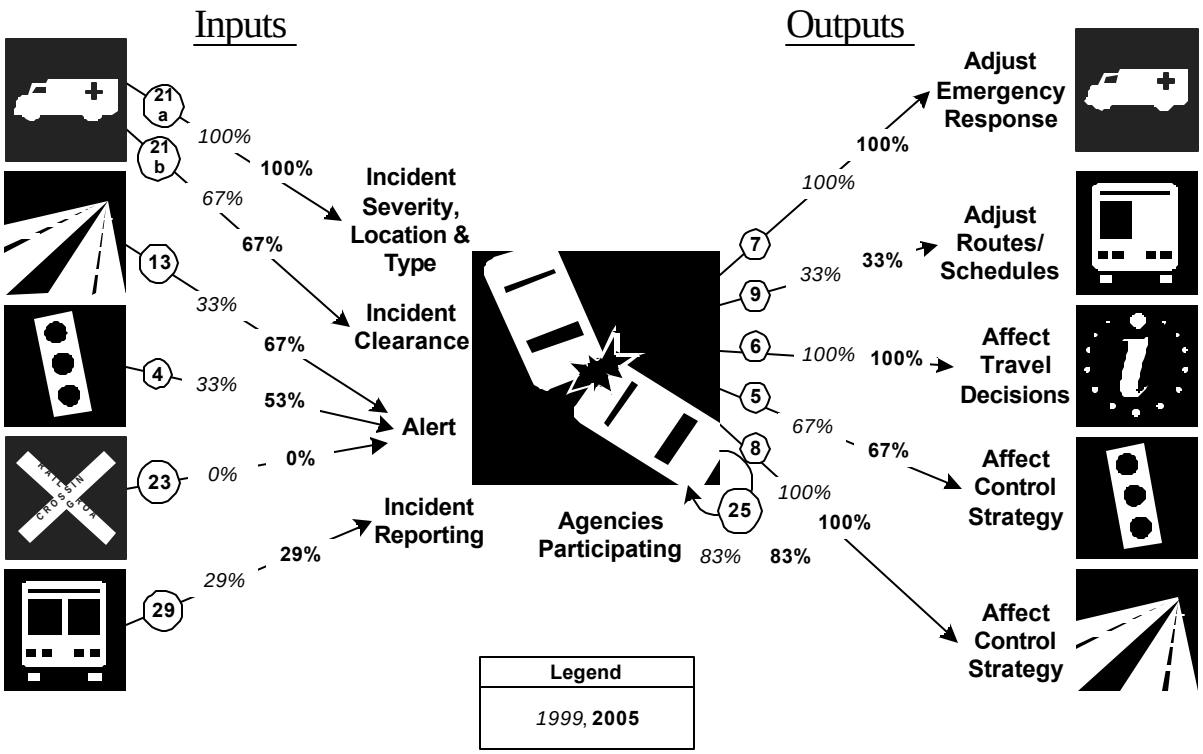
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Freeway miles are covered by incident detection algorithms	395	1427	28%		1427			1427	
Freeway miles are covered by free cellular phone calls to a dedicated number	0	1427	0%		1427			1427	

Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Freeway miles are covered by surveillance cameras.	107	1427	7%	121	1427	8%	150	1427	11%
Freeway miles are covered by on-call publicly-sponsored service patrol or towing services.	601	1427	42%	153	1427	11%	170	1427	12%
Arterial miles are covered by incident detection algorithms	0	10523	0%	12	10523	0%	99	10523	1%
Arterial miles are covered by free cellular phone calls to a dedicated number	0	10523	0%		10523			10523	
Arterial miles are covered by surveillance cameras	284	10523	3%	95	10523	1%	308	10523	3%
Arterial miles are covered by on-call publicly-sponsored service patrol or towing services	0	10523	0%	25	10523	0%		10523	

Incident Management Integration Indicators

Los Angeles, Anaheim, Riverside
Incident Management Integration*



* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
21a. Incident management agencies receiving incident severity from Emergency Management	(3/ 3) 100%	(3/ 3) 100%
21b. Incident management agencies receiving incident clearance activities from Emergency Management	(2/ 3) 67%	(2/ 3) 67%
13. Freeway Management agencies sending freeway conditions to Incident Management	(1/ 3) 33%	(2/ 3) 67%
4. Arterial Management agencies sending arterial conditions to Incident Management	(5/ 15) 33%	(8/ 15) 53%
23. Arterial Management agencies receive information on highway-rail intersection crossing blockages for the purpose of managing incident response	(0/ 15) 0%	(0/ 15) 0%
29. Transit Management agencies report traffic incidents as part of an organized regional incident management program	(5/ 17) 29%	(5/ 17) 29%

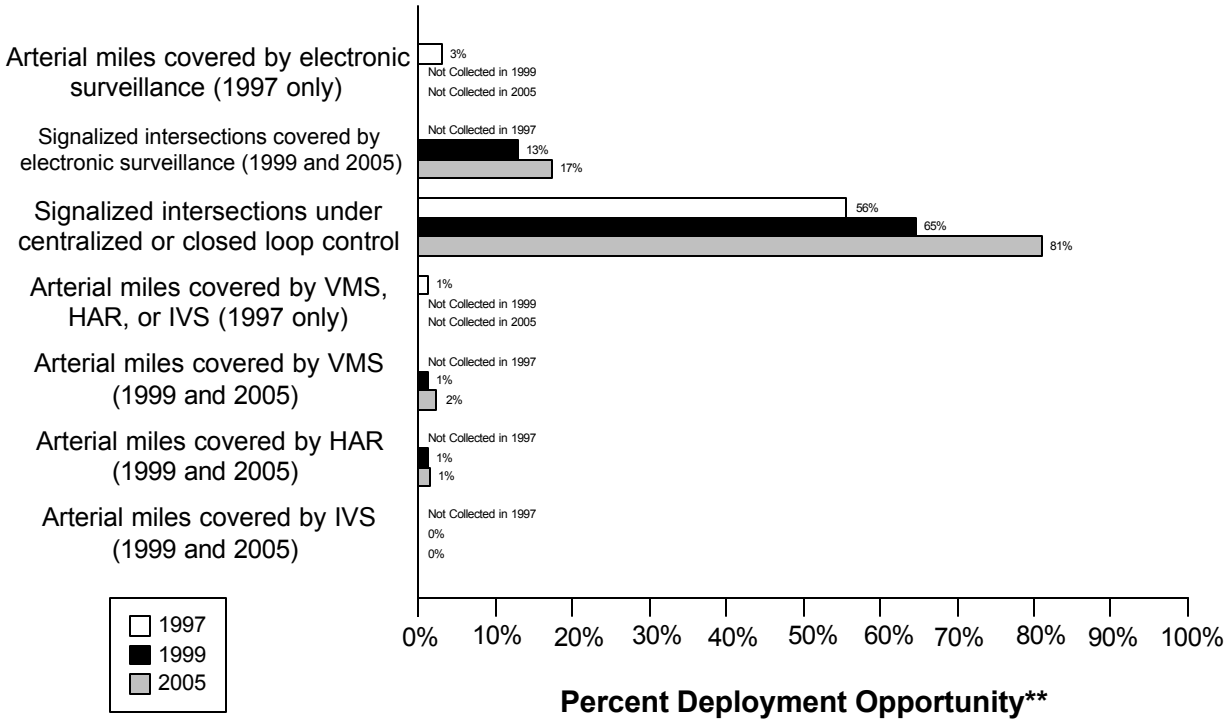
Link Description	1999	2005
7. Incident management agencies transfer information describing incident severity, location, and type to Emergency Management agencies	(3/ 3) 100%	(3/ 3) 100%
9. Incident Management agencies transfer information describing incident severity, location, and type to Transit Management agencies	(1/ 3) 33%	(1/ 3) 33%
6. Incident Management agencies disseminate information describing incident severity, location, and type to the public	(3/ 3) 100%	(3/ 3) 100%
5. Incident Management agencies transfer information describing incident severity, location, and type to Arterial Management agencies	(2/ 3) 67%	(2/ 3) 67%
8. Incident Management agencies transfer information describing incident severity, location, and type to Freeway Management agencies	(3/ 3) 100%	(3/ 3) 100%
25. Police, fire, and EMS agencies participating in a formal incident management plan/team	(10/ 12) 83%	(10/ 12) 83%

Arterial Management Component Indicators

Data as of 5/1/00

Los Angeles, Anaheim, Riverside

Arterial Management*



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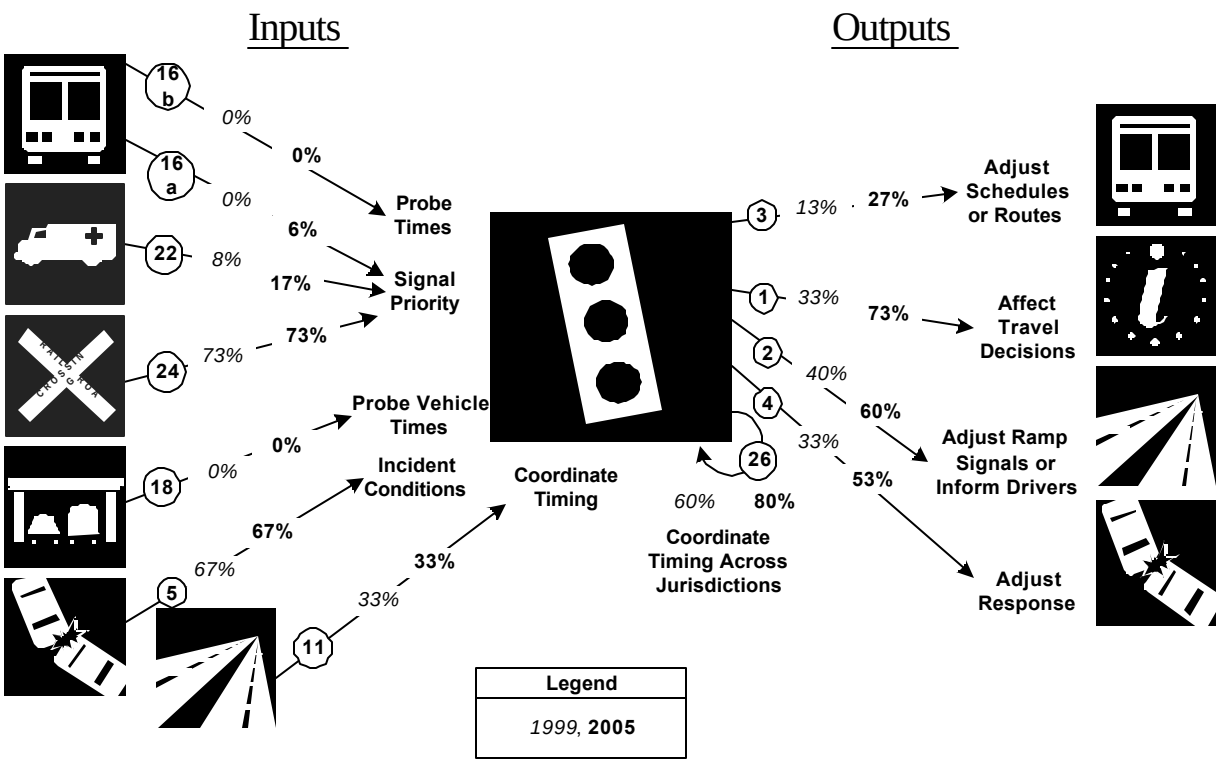
	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Arterial miles covered by electronic surveillance	309	10523	3%						
Signalized intersections are covered by electronic surveillance for monitoring traffic flow				1036	8020	13%	1439	8331	17%
Signalized intersections are under centralized or closed loop control	5725	10292	56%	5187	8020	65%	6755	8331	81%

Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Arterial miles are covered by VMS, HAR, or IVS	128	10523	1%						
Arterial miles are covered by VMS				120	10523	1%	250	10523	2%
Arterial miles are covered by HAR				126	10523	1%	146	10523	1%
Arterial miles are covered by IVS				0	10523	0%	5	10523	0%

Arterial Management Integration Indicators

Los Angeles, Anaheim, Riverside
Arterial Management Integration*



* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
16a. Transit management agencies with vehicles equipped with traffic signal priority	(0/ 17) 0%	(1/ 17) 6%
16b. Transit Management agencies have vehicles equipped as probes on arterials	(0/ 17) 0%	(0/ 17) 0%
22. Emergency Management agencies have vehicles equipped with traffic signal preemption capability	(1/ 12) 8%	(2/ 12) 17%
24. Arterial Management agencies have traffic signals within 200 feet of a highway rail intersection with the capability of having their signal timing adjusted in response to a train crossing	(11/ 15) 73%	(11/ 15) 73%
18. Number of Arterial Management agencies receiving information from vehicle probes	(0/ 15) 0%	(0/ 15) 0%
5. Incident Management agencies transfer information describing incident severity, location, and type to Arterial Management	(2/ 3) 67%	(2/ 3) 67%

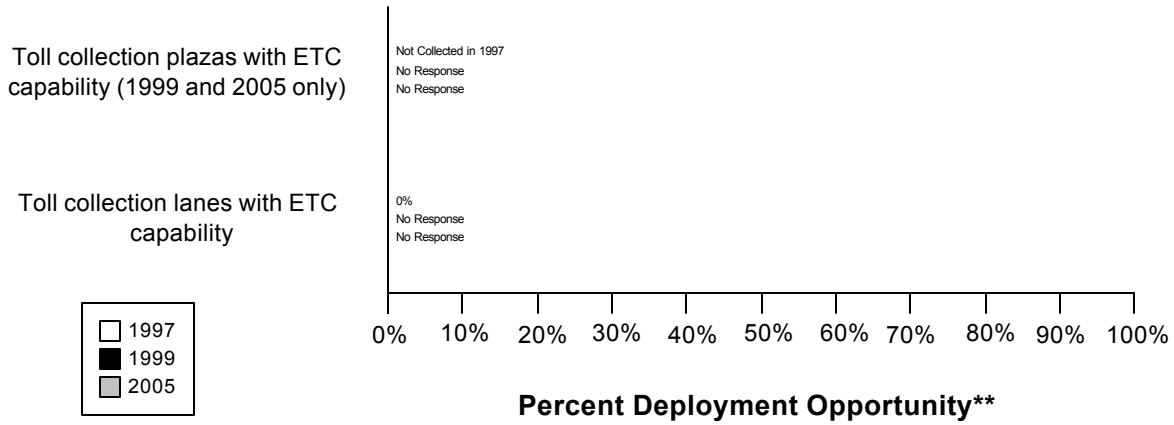
Link Description	1999	2005
11. Freeway Management agencies transfer freeway travel times, speeds, and conditions to Arterial Management agencies	(1/ 3) 33%	(1/ 3) 33%
3. Arterial Management agencies transfer arterial travel times, speeds, and conditions to Transit Management	(2/ 15) 13%	(4/ 15) 27%
1. Arterial Management agencies disseminate arterial travel times, speeds, and conditions to the public	(5/ 15) 33%	(11/ 15) 73%
2. Arterial Management agencies send traffic condition information to Freeway Management	(6/ 15) 40%	(9/ 15) 60%
4. Arterial Management agencies transfer arterial travel times, speeds, and conditions to Incident Management	(5/ 15) 33%	(8/ 15) 53%
26. Arterial Management agencies under cooperative agreement to share traffic signal timing for coordinated response	(9/ 15) 60%	(12/ 15) 80%

Electronic Toll Collection Component Indicators

Data as of 5/1/00

Los Angeles, Anaheim, Riverside

Electronic Toll Collection*



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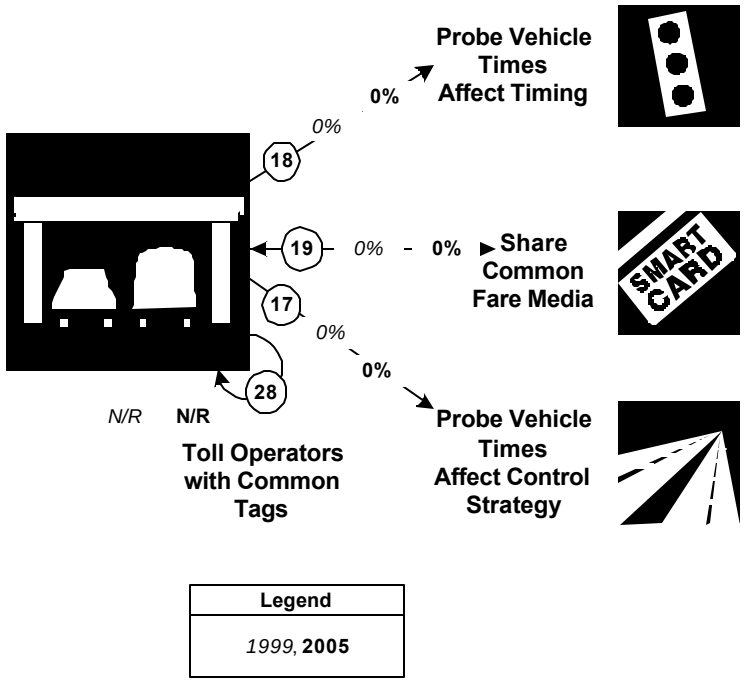
Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Toll collection plazas with ETC capability									
Toll collection lanes with ETC capability	0	4	0%						

Electronic Toll Collection Integration Indicators

Los Angeles, Anaheim, Riverside
Electronic Toll Collection Integration*

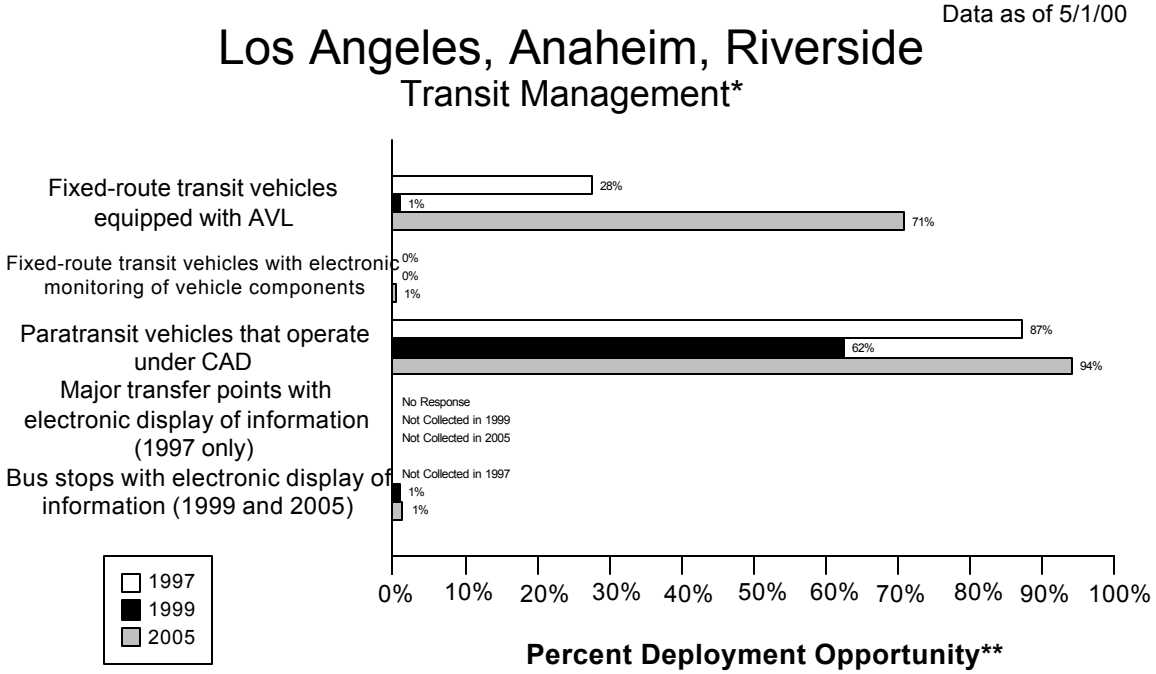


* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
18. Number of Arterial Management agencies receiving information from vehicle probes	(0/ 15) 0%	(0/ 15) 0%
19. Transit agencies that accept electronic payment through the use of electronic toll collection media	(0/ 17) 0%	(0/ 17) 0%
17. Freeway Management agencies receiving information from vehicle probes	(0/ 3) 0%	(0/ 3) 0%
28. Toll operators using common toll tag technology	(0/)	(0/)

Transit Management Component Indicators

Data as of 5/1/00



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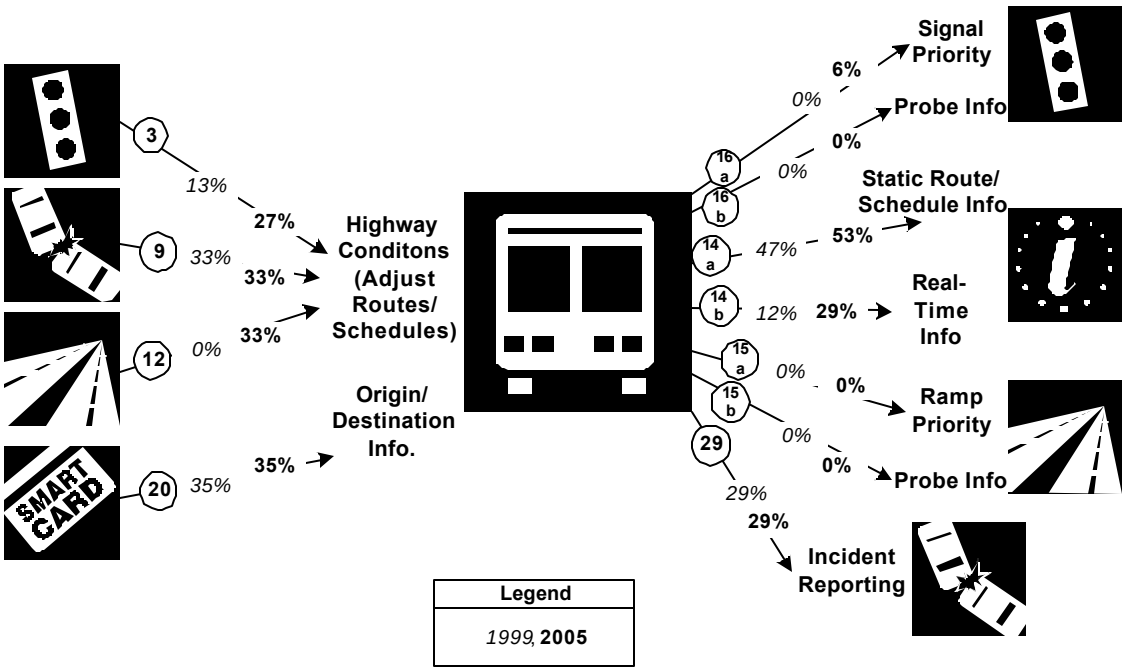
	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Fixed-route transit vehicles are equipped with AVL	197	714	28%	10	1134	1%	1020	1443	71%
Fixed-route transit vehicles are equipped with electronic monitoring of vehicle component	0	714	0%	0	1134	0%	8	1443	1%
Paratransit vehicles operate under computer-aided dispatch	351	403	87%	454	727	62%	807	858	94%
Percent fixed-route transfer locations with electronic display of information	1	0							
Bus stops display information to the public				30	3249	1%	50	3633	1%

Transit Management Integration Indicators

Los Angeles, Anaheim, Riverside
Transit Management Integration*



* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
3. Arterial Management agencies transfer arterial travel times, speeds, and conditions to Transit Management	(2/ 15) 13%	(4/ 15) 27%
9. Incident management agencies transfer information describing incident severity, location, and type to Transit Management	(1/ 3) 33%	(1/ 3) 33%
12. Freeway Management agencies transfer freeway travel times, speeds, and conditions to Transit Management	(0/ 3) 0%	(1/ 3) 33%
20. Transit Management agencies using Electronic Fare Payment data in transit service planning	(6/ 17) 35%	(6/ 17) 35%
16a. Transit Management agencies have vehicles equipped with traffic signal priority capability	(0/ 17) 0%	(1/ 17) 6%
16b. Transit Management agencies have vehicles equipped as probes on arterials	(0/ 17) 0%	(0/ 17) 0%
14a. Transit Management agencies disseminate information describing transit routes, schedules, and fares to travelers	(8/ 17) 47%	(9/ 17) 53%

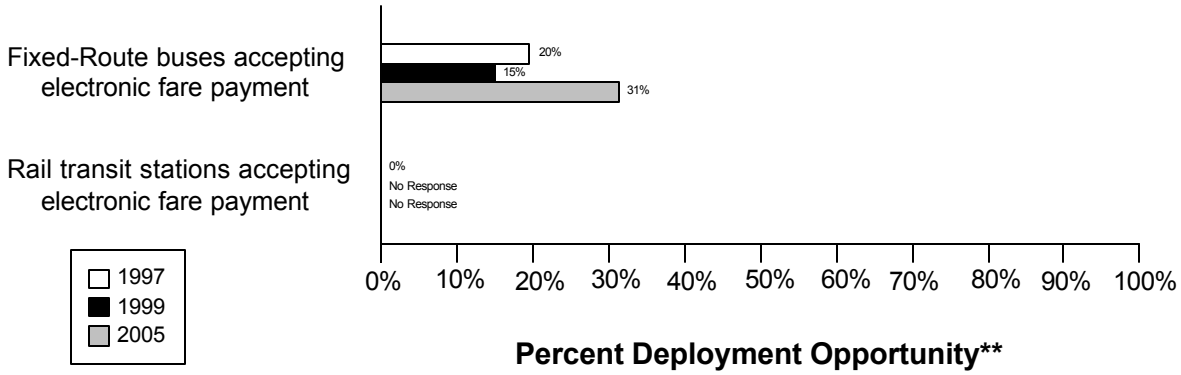
Link Description	1999	2005
14b. Transit Management agencies disseminate information describing schedule/route adherence to travelers	(2/ 17) 12%	(5/ 17) 29%
15a. Transit Management agencies have vehicles equipped with ramp meter priority capability	(0/ 17) 0%	(0/ 17) 0%
15b. Transit Management agencies have vehicles equipped as probes on freeways	(0/ 17) 0%	(0/ 17) 0%
29. Transit Management agencies that report traffic incidents as part of an organized regional Incident Management program	(5/ 17) 29%	(5/ 17) 29%

Electronic Fare Payment Component Indicators

Data as of 5/1/00

Los Angeles, Anaheim, Riverside

Electronic Fare Payment*



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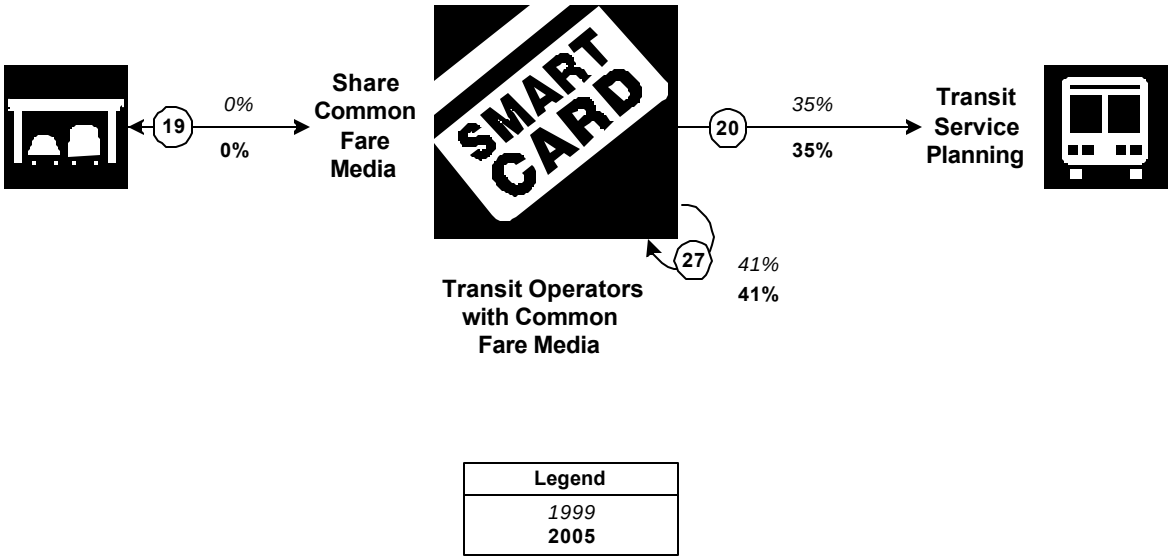
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Fixed-route transit vehicles that accept electronic payment	140	714	20%	169	1134	15%	452	1443	31%
Rail transit stations that accept electronic payment	0	45	0%		2			2	

Electronic Fare Payment Integration Indicators

Los Angeles, Anaheim, Riverside
Electronic Fare Payment Integration*

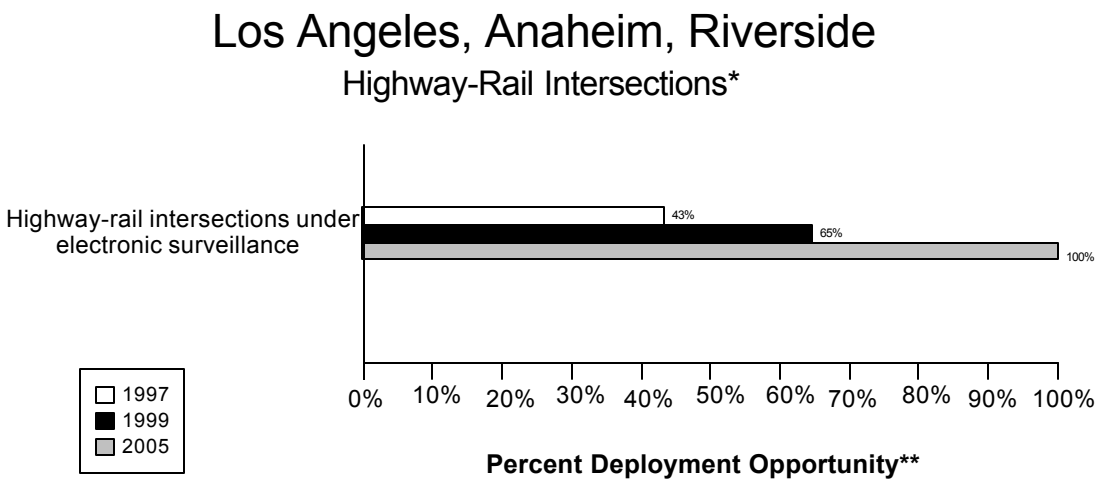


* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
19. Transit agencies that accept electronic payment through the use of electronic toll collection media	(0/ 17) 0%	(0/ 17) 0%
20. Transit Management agencies use Electronic Fare Payment data in transit service planning	(6/ 17) 35%	(6/ 17) 35%
27. Transit Management agencies that use the same electronic payment system	(7/ 17) 41%	(7/ 17) 41%

Highway Rail Intersection Component Indicators

Data as of 5/1/00



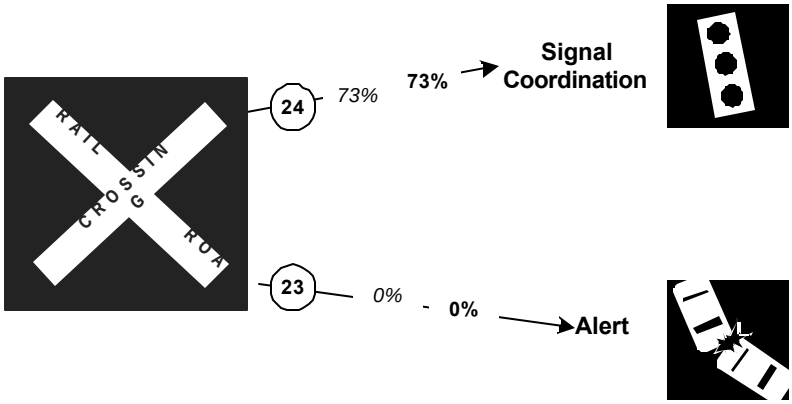
* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity.
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Highway-rail intersections are under electronic surveillance	78	180	43%	84	130	65%	130	130	100%

Highway Rail Intersection Integration Indicators

Los Angeles, Anaheim, Riverside
Highway Rail Intersections Integration*

Inputs Outputs



Legend
1999, **2005**

* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

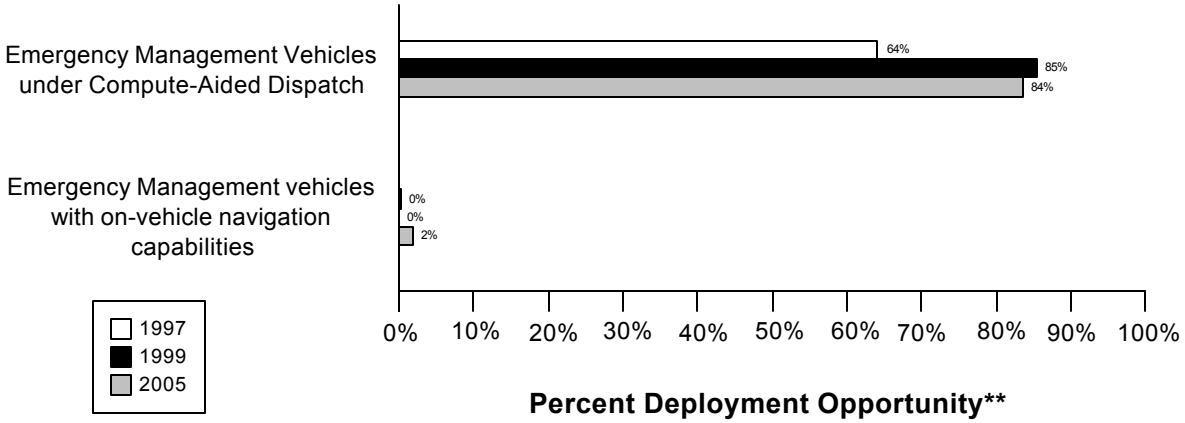
Link Description	1999	2005
24. Arterial Management agencies with traffic signals within 200 feet of a highway rail intersection with the capability of having their signal timing adjusted in response to a train crossing	(11/ 15) 73%	(11/ 15) 73%
23. Arterial Management agencies receive information on highway-rail intersection crossing blockages for the purpose of managing incident response	(0/ 15) 0%	(0/ 15) 0%

Emergency Management Component Indicators

Data as of 5/1/00

Los Angeles, Anaheim, Riverside

Emergency Management*

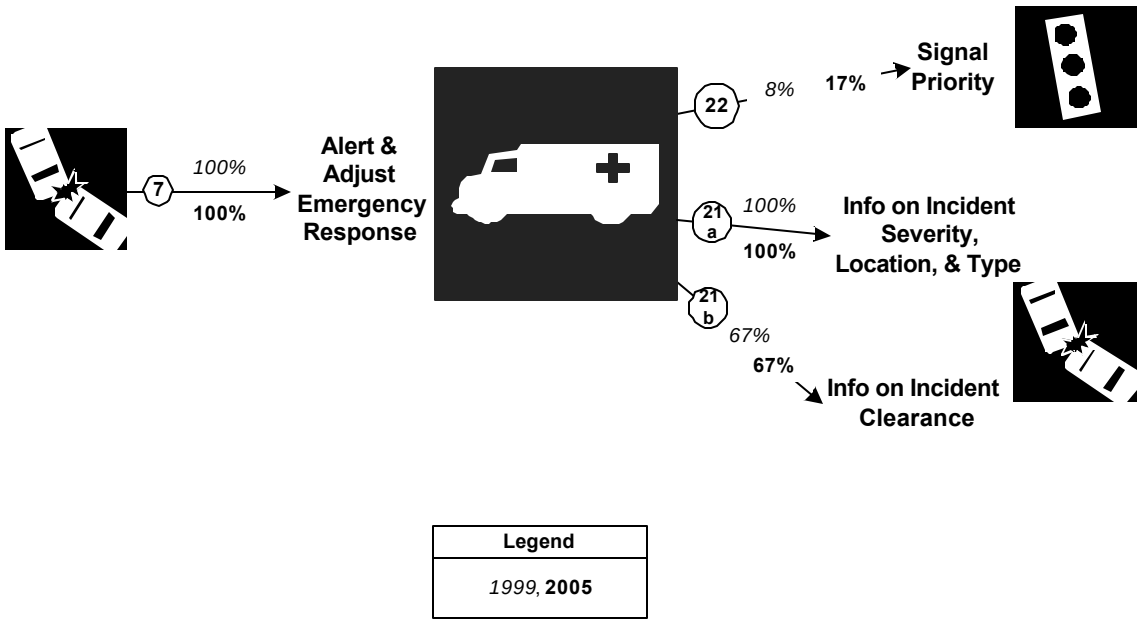


* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity.
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Public sector emergency vehicles that operate under computer-aided dispatch	961	1498	64%	1084	1268	85%	651	779	84%
Public sector emergency vehicles that have in-vehicle route guidance capability	3	1498	0%	0	1268	0%	14	779	2%

Emergency Management Integration Indicators

Los Angeles, Anaheim, Riverside
Emergency Management Integration*

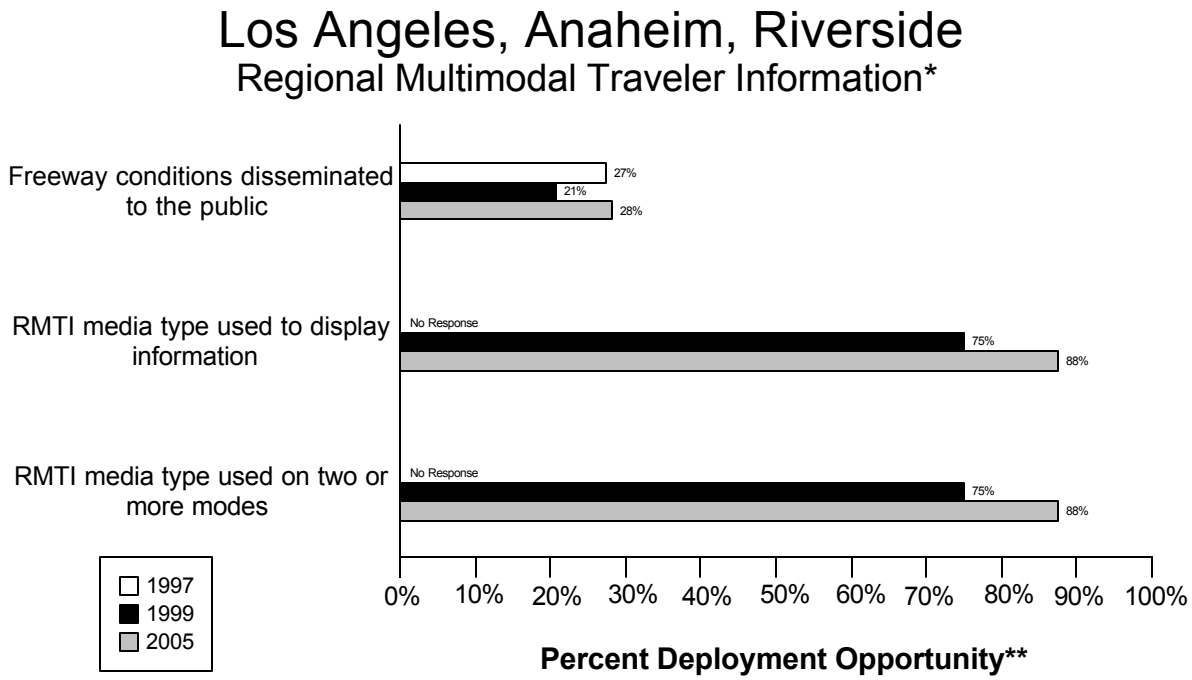


* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
7. Freeway Management agencies transfer information describing incident severity, location, and type to Emergency Management agencies	(3/ 3) 100%	(3/ 3) 100%
22. Emergency Management agencies have vehicles equipped with traffic signal preemption capability	(1/ 12) 8%	(2/ 12) 17%
21a. Freeway Management agencies receive incident severity, location, and type data from Emergency Management agencies	(3/ 3) 100%	(3/ 3) 100%
21b. Freeway Management agencies receive incident clearance activities information from Emergency Management agencies	(2/ 3) 67%	(2/ 3) 67%

Regional Multimodal Traveler Information Component Indicators

Data as of 5/1/00

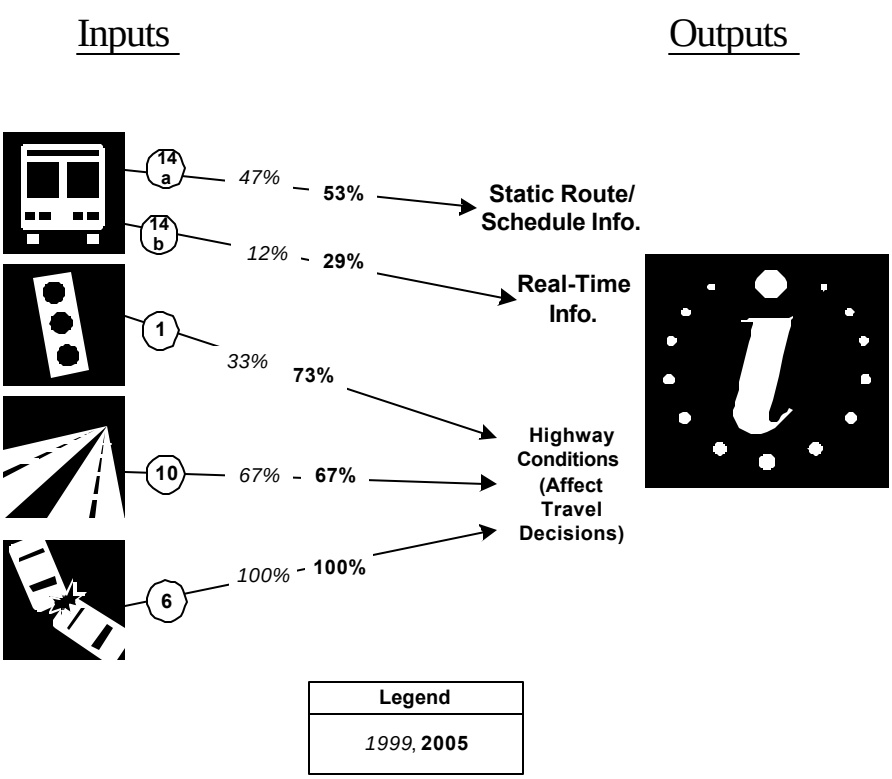


* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity.
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Freeway conditions disseminated to travelers	390	1427	27%	294	1427	21%	400	1427	28%
Possible RMTI media types are used to display information to travelers				6	8	75%	7	8	88%
Possible RMTI media are used to display information on *two or more modes* to travelers				6	8	75%	7	8	88%

Regional Multimodal Traveler Information Integration Indicators

Los Angeles, Anaheim, Riverside
Regional Multimodal Traveler Information Integration*

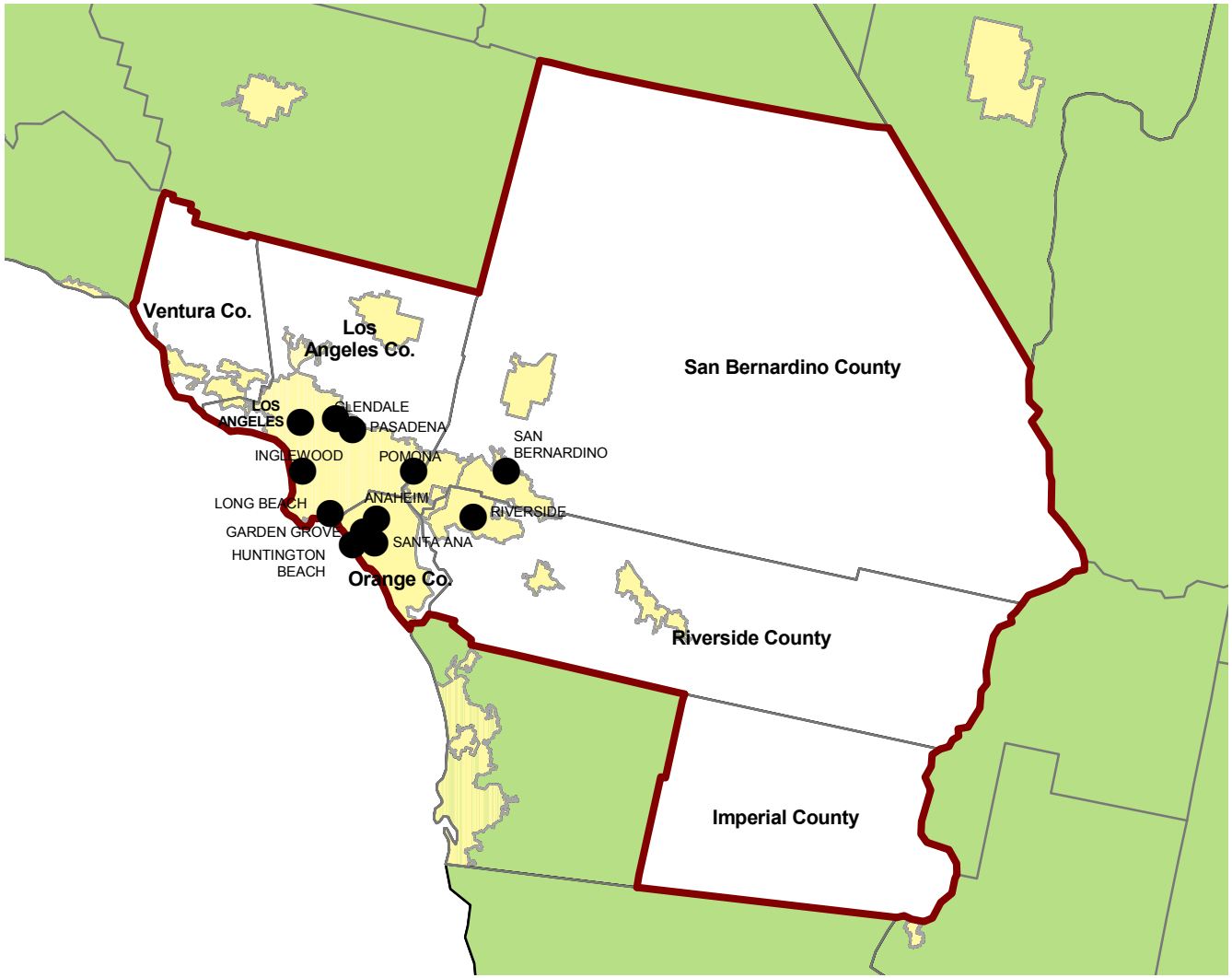


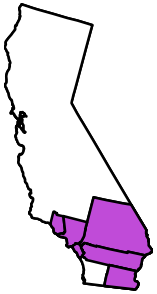
* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
14a. Transit Management agencies that disseminate information describing transit routes, schedules, and fares to travelers	(8/ 17) 47%	(9/ 17) 53%
14b. Transit Management agencies that disseminate information describing schedule/route adherence to travelers	(2/ 17) 12%	(5/ 17) 29%
1. Arterial Management agencies that disseminate arterial travel times, speeds, and conditions to the public	(5/ 15) 33%	(11/ 15) 73%
10. Freeway Management agencies that disseminate freeway travel times, speeds, and conditions to travelers	(2/ 3) 67%	(2/ 3) 67%
6. Incident Management agencies that disseminate information describing incident severity, location, and type to the public	(3/ 3) 100%	(3/ 3) 100%

Appendix A
Survey Coverage Area

SOUTH CALIFORNIA ASSOCIATION OF GOVERNMENTS, CA





City Included in Surveys

Metropolitan Planning Area Boundary

County Boundary

Urbanlized Area

Outside Survey Area

Percentage on the Map Represents Percentage of County Population Included within MPO Boundary

Appendix B
Surveyed Agencies

Surveyed Agencies

Agency Name	Phone	Fax	1999		1997	
			Out	In	Out	In
LOS ANGELES, ANAHEIM, RIVERSIDE						
Arterial Management						
Riverside City	(909) 782-5368	(909) 782-2570	7/29/1999	9/20/1999	9/19/1997	
Caltrans District 8	(909) 383-5976	(909) 383-7507	7/29/1999		9/19/1997	10/21/1997
Inglewood City	(310) 412-5424	(310) 412-5552	7/29/1999	9/23/1999	9/19/1997	10/3/1997
Los Angeles County	(626) 458-5937	(626) 458-5936	7/29/1999		9/19/1997	12/23/1997
Santa Ana City	(714) 647-5604	(714) 647-5616	7/29/1999	10/11/1999	9/19/1997	10/9/1997
Long Beach City	(562) 570-6331	(562) 570-7161	7/29/1999	9/23/1999	9/19/1997	11/3/1997
Caltrans District 7	213-897-1349	213-897-3639			9/19/1997	10/10/1997
Los Angeles City	(213) 580-5359	(213) 580-5580	7/29/1999	8/16/1999	9/19/1997	10/14/1997
Pomona City	(909) 620-2261	(909) 620-2269	7/29/1999	9/16/1999	9/19/1997	10/7/1997
Pasadena City	(626) 744-4703	(626) 744-4757	7/29/1999	10/15/1999	9/19/1997	10/13/1997
Costa Mesa City	(714) 754-5183	(714) 754-5028	7/29/1999	8/16/1999	9/19/1997	10/14/1997
Garden Grove City	(714) 741-5190	(714) 741-5578	7/29/1999	9/17/1999	9/19/1997	10/27/1997
Glendale City	(818) 548-3960	(818) 409-7027	7/29/1999	8/16/1999	9/19/1997	10/8/1997
Huntington Beach City	(714) 374-1548	(714) 374-1573	7/29/1999	8/20/1999	9/19/1997	
Anaheim City	(714) 765-5162	(714) 765-4493	7/29/1999	9/16/1999	9/19/1997	10/1/1997
Caltrans District 12	(949) 724-2664	(949) 724-2914	7/29/1999	10/19/1999	9/19/1997	10/14/1997
San Bernardino City	(909) 384-5213	(909) 384-5155	7/29/1999	8/13/1999	9/19/1997	10/20/1997
Emergency Management						
Santa Ana City Fire Department	(714) 647-5745	(714) 647-5779	6/28/1999		5/26/1998	5/26/1998
Costa Mesa Police Department	(714) 754-5100	(714) 754-5001	6/28/1999	7/6/1999	5/28/1998	5/28/1998
Garden Grove City Police Department	(714) 741-5704	(714) 741-5955	6/28/1999	7/21/1999	9/19/1997	10/31/199
Garden Grove City Fire & EMS Department	(714) 741-5190	(714) 741-5578	6/28/1999	7/2/1999	9/19/1997	
Glendale City Fire Department	818-548-4021	818-409-7027	6/28/1999	6/30/1999	9/19/1997	
Pasadena City Police Dept.	626-744-4263	626-744-4757			9/19/1997	
Glendale City Police Department	818-548-3143	818-507-0967	7/6/1999	9/9/1999	9/19/1997	
Los Angeles County Sheriff Dept	626-458-5937	626-458-5936			9/19/1997	
Los Angeles City Police Department	213-580-5359	213-580-5580			9/19/1997	
Long Beach City Police Dept	562-570-6331	562-570-7161			9/19/1997	11/3/1997
Caltrans District 8	909-383-5976	909-383-7507			9/19/1997	10/21/1997
Inglewood City Fire Department	310-412-5354	310-412-5673	6/28/1999	8/4/1999	9/19/1997	10/17/1997
Huntington Beach City Police Dept.	714-536-5523	714-374-1573			9/19/1997	
Riverside Police Department	(909) 351-6015	(909) 351-6038	6/28/1999	7/16/1999	5/28/1998	5/28/1998

Agency Name	Phone	Fax	1999		1997	
			Out	In	Out	In
San Bernardino County Police Department	(909) 384-5742	(909) 388-4838	6/28/1999	7/2/1999	7/27/1998	7/27/1998
Pomona Police Department	(909) 620-2138	(909) 620-3706	6/28/1999	7/28/1999	6/22/1998	6/22/1998
Santa Ana City Police Department	(714) 245-8061	(714) 245-8092	6/28/1999	7/2/1999	7/27/1997	7/27/1997
Anaheim City Fire Department	(714) 991-8801	(714) 533-6038	6/28/1999		5/27/1998	5/27/1998
Inglewood City Police Department	310-412-5200	310-412-8798	6/28/1999		9/19/1997	10/17/1997
Anaheim Police Department	(714) 765-1807	(714) 765-1664	6/28/1999	7/1/1999	5/28/1998	5/28/1998
Caltrans District 7	(213) 897-0310	(213) 897-0288	6/28/1999	7/2/1999	9/19/1997	10/10/1997
San Bernardino County Fire Department	909-387-5974	909-387-5542	6/28/1999		5/27/1998	5/27/1998
Freeway Management						
Caltrans District 12	(949) 724-2664	(949) 724-2914	7/29/1999	8/24/1999	9/19/1997	10/14/1997
Caltrans District 8	(909) 383-5976	(909) 383-7507	7/29/1999	8/30/1999	9/19/1997	10/21/1997
Caltrans District 7	(213) 897-0310	(213) 897-0288	7/29/1999		9/19/1997	10/10/1997
MPO						
South California Association of Governments	(213) 236-1800	(213) 236-1964	7/16/1999	8/9/1999		
Transit Management						
Culver City Municipal Bus Lines	(310) 253-6535	(310) 253-6513	8/9/1999		7/18/1997	7/23/1997
Laguna Beach Municipal Transit Lines	(949) 497-0340	(949) 497-0771	8/9/1999	8/16/1999	7/18/1997	10/20/1997
Long Beach Public Transportation Company	(562) 599-8521	(562) 000-0000	8/9/1999	9/27/1999	7/18/1997	7/30/1997
Victor Valley Transit Authority	(760) 948-4330	(760) 948-1380	8/9/1999	9/23/1999	7/18/1997	8/7/1997
Montebello Bus Lines	(323) 887-4605	(323) 887-4643	8/9/1999	11/15/1999	7/18/1997	7/28/1997
South Coast Area Transit	(805) 483-3959	(805) 487-0925	8/9/1999	9/2/1999	8/15/1997	8/26/1997
Santa Monica Municipal Bus Lines	(310) 458-8301	(310) 917-6640	8/9/1999		7/18/1997	7/30/1997
Norwalk Transit System	(562) 929-5533	(562) 929-5572	8/9/1999	10/15/1999	7/18/1997	7/29/1997
Simi Valley Transit	(805) 583-6481	(805) 583-6402	8/9/1999	10/1/1999	9/18/1997	10/10/1997
Southern California Regional Rail Authority	(213) 452-0264	(213) 452-0422	8/9/1999	8/23/1999	7/18/1997	7/21/1997
Commerce City Municipal Buslines	(323) 887-4419	323-724-2776	8/9/1999	1/10/2000	7/18/1997	10/20/1997
Torrance City Transit System	(310) 781-6927	(310) 618-6229	8/9/1999	9/13/1999	7/18/1997	
Orange County Transportation Authority	(714) 560-5961	(714) 560-5880	8/9/1999	8/24/1999	8/15//1997	
Corona City Dial-A-Ride	(909) 736-2235	(909) 279-3627	8/9/1999	9/24/1999	7/21/1997	7/24/1997
Arcadia Transit	(626) 574-5435	(626) 447-3309	8/9/1999	8/19/1999	8/29/1997	9/5/1997
Antelope Valley Transit Authority	(805) 726-2616	(805) 726-2615	8/9/1999	9/27/1999	7/18/1997	
Gardena City	(310) 217-9547	(310) 538-1989	8/9/1999		7/18/1997	
Los Angeles City	(213) 580-5436	(213) 580-5458	8/9/1999	9/7/1999	7/18/1997	7/29/1997
Access Services Incorporated	(213) 270-609	(213) 270-6058	8/9/1999	9/24/1999	7/18/1997	7/28/1997
La Mirada City Transit	(562) 943-0131	(562) 943-1464	8/9/1999	10/15/1999	7/18/1997	

Appendix C
Freeway Management Components

Freeway Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Caltrans District 12		Caltrans District 7		Caltrans District 8		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		3	
FREEWAY MANAGEMENT SECTION								
Number of freeway centerline miles that agency owns or maintains	220		NR		NR		220	
Number of freeway centerline miles that is used for planning	220		NR		NR		220	
Number of freeway entrance ramps that agency owns, operates or maintains	281		NR		NR		281	
Number of freeway entrance ramps that is used for planning	281		NR		NR		281	
Type of facilities used to conduct freeway/incident management activities								
Activities housed in a free-standing dedicated building?	No		No		No		0	
Activities housed in a building shared with other activities?	No		No		Yes		1	
Activities conducted in a dedicated control room?	Yes		No		Yes		2	
Control room contains operator console(s)?	No		No		Yes		1	
Control room contains electronic wall map?	No		No		Yes		1	
Control room contains CCTV display(s)?	No		No		Yes		1	
Activities conducted in a room containing workstations or PCs that manage traffic?	No		No		No		0	
Facilities are electronically linked to other transportation mgt facilities?	No		No		No		0	
Staffing and hours of operation of freeway/incident management activities								
Number of full-time agency staff members	NR		NR		5		5	
Number of full time contractor staff members	NR		NR		0		0	
Number of part-time agency staff members	NR		NR		2		2	
Number of part-time contractor staff members	NR		NR		0		0	
Staffed 24 hours day by agency staff or by others	agency		NR		NR		0	
Staffed during peak hours only by agency staff or by others	NR		NR		NR		0	
Staffed by others during off-peak hours	No		No		No		0	
Agency staff perform transportation management as an ancillary duty	No		No		No		0	
Agency staff dedicated to transportation management duty	No		No		Yes		1	
Types of operations conducted for freeway/incident management								
Incident detection and management?	Yes		No		Yes		2	
This metropolitan area?	No		No		Yes		1	
Other metropolitan area?	No		No		No		0	
Statewide?	No		No		No		0	
Monitoring and troubleshooting status of system components?	Yes		No		Yes		2	
Manual override of ramp metering rates at freeway on-ramps?	No		No		No		0	
Operating transportation management roadside devices?	Yes		No		Yes		2	
Radio communications with other agencies?	Yes		No		No		1	
Exchange of electronic data with other agencies such as computer aided dispatch?	Yes		No		Yes		2	
Real-Time Traffic Data Collection Technologies								
Total number of miles under surveillance with real-time data collection tech.	223	250	NR	NR	71	150	294	400

Freeway Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Caltrans District 12		Caltrans District 7		Caltrans District 8		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Number of Stations with data collection technologies								
Loop detectors	588	630	0	0	167	250	755	880
Video imaging detectors	4	4	0	0	0	0	4	4
Probe readers (elec. toll tags, transit vehicles, other technology)	0	0	0	0	0	0	0	0
Microwave radar	0	0	0	0	0	0	0	0
Other (e.g., acoustic detectors)	0	0	0	0	0	0	0	0
Number of Miles covered with data collection technologies								
Loop detectors	223	250	0	0	71	150	294	400
Video imaging detectors	1	1	0	0	0	0	1	1
Probe readers (elec. toll tags, transit vehicles, other technology)	0	0	0	0	0	0	0	0
Microwave radar	0	0	0	0	0	0	0	0
Other (e.g., acoustic detectors)	0	0	0	0	0	0	0	0
Variable Message Signs (VMS) on Freeways								
Candidate locations for deployment of VMS where VMS has been deployed	40	52	NR	NR	33	45	73	97
Candidate locations for deployment of VMS	52	52	NR	NR	NR	NR	52	52
Roadside Technologies used to Distribute Traveler Information								
Total number of miles where information is distributed	20	30	NR	NR	NR	NR	20	30
Number deployed								
Highway advisory radio	2	3	0	0	4	7	6	10
In-vehicle signing	0	0	0	0	0	0	0	0
Portable variable message signs	0	0	0	0	7	18	7	18
Other	0	0	0	0	0	0	0	0
Miles covered								
Highway advisory radio	20	30	0	0	NR	NR	20	30
In-vehicle signing	0	0	0	0	0	0	0	0
Portable variable message signs	0	0	0	0	NR	NR	0	0
Other	0	0	0	0	0	0	0	0
Ramp Meters on Freeways								
Number of entrance ramp meters operated under isolated control	330	370	NR	NR	136	200	466	570
Number of entrance ramp meters operated under central control	0	370	NR	NR	NR	200	0	570
Number of entrance ramp meters that provide preemption for emergency vehicles	0	0	NR	NR	NR	NR	0	0
Number of entrance ramp meters that provide priority for transit vehicles	0	0	NR	NR	NR	NR	0	0
Total number of metered ramps	330	NR	NR	NR	136	200	466	200
Freeway centerline miles under lane control	NR	NR	NR	NR	NR	NR	0	0
Communication Links								
Freeway centerline miles covered by the following type of communication								
Twisted pair cable	120	30	0	0	0	0	120	30
Coaxial cable	0	0	0	0	0	0	0	0
Fiber-optic cable	50	140	0	0	86	150	136	290
Microwave radio	0	0	0	0	13	13	13	13
Other	0	0	0	0	0	0	0	0
ITS Standards Used Related to Freeway Management								
ATMS Data Dictionary Sections 1 and 2 (ITE TM 1.01)	Yes		No		No		1	

Freeway Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Caltrans District 12		Caltrans District 7		Caltrans District 8		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
ATMS Data Dictionary Sections 3 and 4 (ITE TM 1.02)	No		No		No		0	
Message Set for External TMC Communication (ITE-9604-1)	Yes		No		No		1	
NTCIP Class B Profile (AASHTO TS 3.3)	No		No		No		0	
NTCIP Data Collection and Monitoring Devices (AASHTO TS 3.DCM)	No		No		No		0	
NTCIP Object Definitions for Environmental Sensor Stations (AASHTO TS 3.7)	No		No		No		0	
NTICP Object Definitions for Dynamic Message Signs (AASHTO TS 3.6)	No		No		No		0	
NTICP Object Definitions for Highway Advisory Radio (AASHTO TS 3.HAR)	No		No		No		0	
NTICP Object Definitions for Ramp Meter Control (AASHTO TS 3.RMC)	No		No		No		0	
NTICP Object Definitions for Transportation Sensor Systems (AASHTO TS 3.TSS)	No		No		No		0	
NTICP Object Definitions for Video Camera Control (AASHTO TS 3.VCC)	No		No		No		0	
Would agency be willing to participate in testing of ITS Standards?	Yes		NR		Yes		2	
Have agreements in place with other agencies to use similar hardware								
and software to aid maintenance and interoperability?	No		NR		Yes		1	
INCIDENT MANAGEMENT SECTION								
Use of Service Patrols to Assist in Detection and Response to Incidents								
Publicly operated service patrol vehicles	No		No		No		0	
Privately operated service patrol vehicles operated under public contract	Yes		Yes		Yes		3	
Total number of freeway miles patrolled by these services	153	170	NR	NR	NR	NR	153	170
Miles Covered by Methods to Detect and Verify Incidents								
Free cellular phone call to a dedicated phone number other than 911	NR	NR	NR	NR	NR	NR	0	0
Police patrols	153	NR	NR	NR	NR	NR	153	0
Computer algorithms linked to traffic surveillance equipment	NR	NR	NR	NR	NR	NR	0	0
CCTV	40	NR	NR	NR	81	150	121	150
Private sector sources (e.g., Shadow Traffic, SmartRoutes)	NR	NR	NR	NR	NR	NR	0	0
Other (e.g., free cell phone call to an area radio system, etc.)	NR	NR	NR	NR	NR	NR	0	0
Procedures in place for Freeway Incident Response?								
Working agreement(s)/arrangement(s) with other agencies	Yes		No		Yes		2	
Inter-agency incident management admin. team that meets regularly	Yes		No		No		1	
Major incident response team that responds to major incidents	Yes		Yes		No		2	
Set of goals/objectives for incident mgt that has been adopted by agencies in region	No		No		No		0	
Central focal point for facilitating the two-way flow of information								
among agencies responding to an incident?								
The central focal point is a Freeway or Traffic Management Center	Yes		Yes		Yes		3	
The central focal point is a Police, Fire or joint dispatch center	Yes		No		No		1	
The central focal point is another center	No		No		No		0	
Methods of Communication Used On-Site at an Incident								
Police								
Two-way radio	No		No		No		0	
800 MHz trunked radio	No		No		No		0	
Cellular telephone	No		No		No		0	
Hand-held (i.e., walkie-talkie)	No		No		No		0	

Freeway Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Caltrans District 12		Caltrans District 7		Caltrans District 8		Totals	
	1999	2005	1999	2005	1999	2005	1999	2005
Automated data systems (i.e., CAD)	No		No		No		0	
Fire								
Two-way radio	No		No		No		0	
800 MHz trunked radio	No		No		No		0	
Cellular telephone	No		No		No		0	
Hand-held (i.e., walkie-talkie)	No		No		No		0	
Automated data systems (i.e., CAD)	No		No		No		0	
DOT								
Two-way radio	No		Yes		Yes		2	
800 MHz trunked radio	No		Yes		Yes		2	
Cellular telephone	No		Yes		Yes		2	
Hand-held (i.e., walkie-talkie)	No		No		Yes		1	
Automated data systems (i.e., CAD)	No		No		No		0	
Towing								
Two-way radio	No		No		No		0	
800 MHz trunked radio	No		No		No		0	
Cellular telephone	No		No		No		0	
Hand-held (i.e., walkie-talkie)	No		No		No		0	
Automated data systems (i.e., CAD)	No		No		No		0	
Which police agencies typically respond to incidents on freeways?								
State Police	Yes		Yes		Yes		3	
County Police or Sheriff	No		No		No		0	
City Police	No		No		No		0	
Who provides on-site emergency medical response?								
Fire	Yes		Yes		Yes		3	
Emergency Management Service Agency	No		No		No		0	
Private hospital	No		No		No		0	
Has a multi-agency contact list been developed in area containing the								
names, phone numbers, etc. for the appropriate response personnel?	Yes		Yes		No		2	
Is the Incident Command System used to manage incident scenes?	Yes		Yes		Yes		3	
Is there a legal specification by state law or formal agreement as to who								
is "in charge" at the incident scene?								
Specified by state law?	Yes		No		Yes		2	
Formal agreement?	No		Yes		No		1	
Not specified or don't know?	No		No		No		0	
On-scene command post used to manage activities of responding agencies?	Yes		Yes		Yes		3	
Are there communication linkages to a communications traffic/freeway mgt center?	Yes		Yes		Yes		3	
Plan developed and adopted by responding agencies for staging and parking								
response vehicles and equip. at incident site that minimizes lane blockage								
and facilitates the re-opening of lanes?	Yes		No		No		1	
Respondents protected through law or court opinion for liability claims								
for damages to vehicles or cargoes during clearance activities?	Yes		Yes		No		2	

Freeway Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Caltrans District 12		Caltrans District 7		Caltrans District 8		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Are overturned tank trucks, which are intact and not leaking, uprighted								
without first off-loading?	Yes		No		No		1	
Does your state or local jurisdiction have a law that requires drivers								
involved in property-damage-only accidents to move the vehicles								
from travel lanes to a safe location to exchange info and wait for police?	No		Yes		Yes		2	
Have laws or policies regarding the removal of stalled/abandoned vehicles								
from freeway shoulders?	Yes		NR		Yes		2	
Hours abandoned vehicles are allowed to remain on a freeway shoulder?	0-24		DK		NR		0	
Have policies or procedures for quick removal of vehicles?	Yes		Yes		NR		2	
Is Total Station equipment used to investigate major incidents?	No		Yes		DK		1	
Handling of Towing Responses to Incidents								
Formal contract based on qualifications?	Yes		No		No		1	
Rotation with companies under contract?	Yes		Yes		Yes		3	
Separate lists kept for light and heavy response and for specialty recovery?	NR		Yes		Yes			
Rotation list with minimal qualifications?	No		No		No		0	
In towing qualifications, do you require towers to be certified under the								
Towing and Recovery Ass. of America's National Drivers Cert. Program?	Considered		DK		DK		0	
_____								
DK: Don't know								
NR: No Response								
Leg: Legislation or action being planned								

Appendix D
Freeway Management Integration

Freeway Management Integration
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Caltrans District 12		Caltrans District 7	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Freeway Management Section				
Agencies your agency provides freeway travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	Caltrans District 7, Caltrans District 8	None listed	None listed	None listed
Share Infrastructure	Caltrans District 7, Caltrans District 8	None listed	None listed	None listed
Coordinate Operation	Caltrans District 7, Caltrans District 8	None listed	None listed	None listed
Incident Management Agencies				
Provide Information	Caltrans District 7, Caltrans District 8	None listed	None listed	None listed
Share Infrastructure	Caltrans District 7, Caltrans District 8	None listed	None listed	None listed
Coordinate Operation	Caltrans District 7, Caltrans District 8	None listed	None listed	None listed
Arterial Management Agencies				
Provide Information	Anaheim City, Costa Mesa City, Garden Grove City, Huntington Beach City, Santa Ana City	None listed	None listed	None listed
Share Infrastructure	Anaheim City, Costa Mesa City, Garden Grove City, Huntington Beach City, Santa Ana City	None listed	None listed	None listed
Coordinate Operation	Anaheim City, Costa Mesa City, Garden Grove City, Huntington Beach City, Santa Ana City	None listed	None listed	None listed
Public Transit Operators				

Agency Name	Caltrans District 12		Caltrans District 7	
	1999	**2005**	**1999**	**2005**
Provide Information	None listed	Orange County Transportation Authority	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				
Incident Management agencies from which your agency receives				
incident severity, location, and type information	Caltrans District 12, Caltrans District 7, Caltrans District 8	Caltrans District 12, Caltrans District 7, Caltrans District 8	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	Anaheim City, Garden Grove City, Huntington Beach City, Santa Ana City, Mission Viejo, Buena Park	None listed	None listed
Public Transit operators from which your agency receives				
freeway travel times derived from vehicle probes	None listed	None listed	None listed	None listed
Toll Collection agencies from which your agency receives freeway travel				
times derived from vehicles probes	Caltrans, Transportation Corridor Agencies	Caltrans, Transportation Corridor Agencies	None listed	None listed
Freeway Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Arterial Management Agencies				
Provide Information	Anaheim City, Caltrans District 7, Caltrans District 8, Costa Mesa City, Garden Grove City, Huntington Beach City, Santa Ana City	Anaheim City, Caltrans District 7, Caltrans District 8, Costa Mesa City, Garden Grove City, Huntington Beach City, Santa Ana City	Caltrans District 12, Caltrans District 8, Los Angeles City	Caltrans District 12, Caltrans District 8, Los Angeles City
Share Infrastructure	None listed	None listed	Caltrans District 12, Caltrans District 8, Los Angeles City	Caltrans District 12, Caltrans District 8, Los Angeles City
Coordinate Operation	None listed	None listed	Caltrans District 12, Caltrans District 8, Los Angeles City	Caltrans District 12, Caltrans District 8, Los Angeles City
Emergency Management Agencies				

Agency Name	Caltrans District 12		Caltrans District 7	
	1999	**2005**	**1999**	**2005**
Provide Information	Anaheim City Fire Department, Anaheim Police Department, Caltrans District 7, Caltrans District 8, Costa Mesa Police Department, Garden Grove City Fire & EMS Department, Garden Grove City Police Department, Huntington Beach City, San Bernardino County Police Department, Santa Ana City Fire Department	Anaheim City Fire Department, Anaheim Police Department, Caltrans District 7, Caltrans District 8, Costa Mesa Police Department, Garden Grove City Fire & EMS Department, Garden Grove City Police Department, San Bernardino County Police Department, Santa Ana City Fire Department	Caltrans District 8, Caltrans District 12	Caltrans District 8, Caltrans District 12
Share Infrastructure	None listed	None listed	Caltrans District 8, Caltrans District 12	Caltrans District 8, Caltrans District 12
Coordinate Operation	None listed	None listed	Caltrans District 8, Caltrans District 12	Caltrans District 8, Caltrans District 12
Freeway Management Agencies				
Provide Information	Caltrans District 7, Caltrans District 8	Caltrans District 7, Caltrans District 8	Caltrans District 12, Caltrans District 8	Caltrans District 12, Caltrans District 8
Share Infrastructure	None listed	None listed	Caltrans District 12, Caltrans District 8	Caltrans District 12, Caltrans District 8
Coordinate Operation	None listed	None listed	Caltrans District 12, Caltrans District 8	Caltrans District 12, Caltrans District 8
Public Transit Operators				
Provide Information	Orange County Transportation Authority	Orange County Transportation Authority	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				
Emergency Management agencies from which your agency receives				
incident clearance and/or incident severity and type				

Freeway Management Integration
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Caltrans District 12		Caltrans District 7	
	1999	**2005**	**1999**	**2005**
Receive Arterial Incident Clearance Information	Caltrans District 7, Caltrans District 8	Caltrans District 7, Caltrans District 8	Caltrans District 8, California Highway Patrol	Caltrans District 8, California Highway Patrol
Receive Arterial Incident Severity Information	None listed	None listed	Caltrans District 8, California Highway Patrol	Caltrans District 8, California Highway Patrol
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	Anaheim City	None listed	None listed	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	Caltrans District 7, Caltrans District 8	Caltrans District 7, Caltrans District 8	Caltrans District 7	Caltrans District 7

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Caltrans District 8	
	1999	**2005**
Agency Returned Survey?	Yes	
Freeway Management Section		
Agencies your agency provides freeway travel times, speeds, and		
conditions information, share infrastructure or coordinates operation		
Freeway Management Agencies		
Provide Information	None listed	Caltrans District 12, Caltrans District 7
Share Infrastructure	None listed	Caltrans District 12, Caltrans District 7
Coordinate Operation	None listed	Caltrans District 12, Caltrans District 7
Incident Management Agencies		
Provide Information	None listed	Caltrans District 12, Caltrans District 7, Caltrans District 8, Fontana City
Share Infrastructure	None listed	Caltrans District 12, Caltrans District 7, Caltrans District 8, Fontana City
Coordinate Operation	None listed	Caltrans District 12, Caltrans District 7, Caltrans District 8
Arterial Management Agencies		
Provide Information	None listed	Fontana City, Ontario City
Share Infrastructure	None listed	Fontana City, Ontario City
Coordinate Operation	None listed	Fontana City, Ontario City
Public Transit Operators		

Agency Name	Caltrans District 8	
	1999	**2005**
Provide Information	None listed	None listed
Share Infrastructure	None listed	None listed
Coordinate Operation	None listed	None listed
Receiving real-time information via electronic means from others		
Incident Management agencies from which your agency receives		
incident severity, location, and type information	None listed	Caltrans District 12, Caltrans District 7
Arterial Management agencies from which your agency receives		
arterial travel times, speeds, and conditions	None listed	None listed
Public Transit operators from which your agency receives		
freeway travel times derived from vehicle probes	None listed	None listed
Toll Collection agencies from which your agency receives freeway travel		
times derived from vehicles probes	None listed	None listed
Freeway Incident Management Section		
Agencies your agency provides incident severity, location, and type info.		
and/or shares infrastructure and/or coordinates operation		
Arterial Management Agencies		
Provide Information	None listed	None listed
Share Infrastructure	None listed	None listed
Coordinate Operation	None listed	None listed
Emergency Management Agencies		

Agency Name	Caltrans District 8	
	1999	**2005**
Provide Information	Caltrans District 7, California Highway Patrol	Caltrans District 8
Share Infrastructure	California Highway Patrol	Caltrans District 8
Coordinate Operation	Caltrans District 8, Califor	None listed
Freeway Management Agencies		
Provide Information	Caltrans District 12, Caltrans District 7, California Highway Patrol	None listed
Share Infrastructure	California Highway Patrol	Caltrans District 12, Caltrans District 7
Coordinate Operation	Caltrans District 12, Caltrans District 7, California Highway Patrol	None listed
Public Transit Operators		
Provide Information	None listed	None listed
Share Infrastructure	None listed	None listed
Coordinate Operation	None listed	None listed
Receiving real-time information via electronic means from others		
Emergency Management agencies from which your agency receives		
incident clearance and/or incident severity and type		

Freeway Management Integration
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Caltrans District 8	
	1999	**2005**
Receive Arterial Incident Clearance Information	Caltrans District 7, California Highway Patrol	None listed
Receive Arterial Incident Severity Information	Caltrans District 7, California Highway Patrol	None listed
Arterial Management agencies from which your agency receives		
arterial travel times, speeds, and conditions	None listed	Fontana City, Ontario City
Freeway Management agencies from which your agency receives		
freeway travel times, speeds, and conditions	None listed	Caltrans District 12, Caltrans District 7

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Appendix E
Freeway Management Information Collection and Dissemination

Data Collection and Dissemination: Freeway Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Caltrans District 12		Caltrans District 7	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Freeway Management Section				
Data collected, archived, and/or transferred to another agency				
Collected by your agency	Traffic volumes, Traffic speeds, Lane occupancy, Ramp meter preemption's, Metering rate, Incidents, Scheduled work zones, Emergency/evacuation routes and procedures	NR	NR	NR
Archived by your agency	Traffic volumes, Traffic speeds, Lane occupancy, Ramp meter preemption's, Metering rate, Incidents, Scheduled work zones, Emergency/evacuation routes and procedures	NR	NR	NR

Data Collection and Dissemination: Freeway Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Caltrans District 12		Caltrans District 7	
	1999	**2005**	**1999**	**2005**
Transferred to another agency by your agency	Traffic volumes, Traffic speeds, Lane occupancy, Ramp meter preemption's, Metering rate, Incidents, Scheduled work zones, Emergency/evacuation routes and procedures	NR	NR	NR
Importance of making information available to the public				
Ranked High	Traffic volumes, Traffic speeds, Lane occupancy, Incidents, Scheduled work zones, Emergency/evacuation routes and procedures		NR	
Ranked Medium	Ramp meter preemption's, Metering rate		NR	
Ranked Low	NR		NR	
Groups that make requests for the data	Universities, Media (I.e., TV stations, radio stations), MPOs, Consultants, Advanced Traveler Information Systems (ATIS) provi		NR	
What is the data used for?	Traffic analysis, Construction impact determination, Planning, Incident detection algorithm development, Dissemination to the public		NR	
Methods used to disseminate freeway information to the public				

Data Collection and Dissemination: Freeway Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Caltrans District 12		Caltrans District 7	
	1999	**2005**	**1999**	**2005**
Technologies your agency uses to disseminate:	Telephone system, Internet Web sites, Cell phone/voice, Facsimile	Dedicated cable TV, Telephone system, Kiosks, In-vehicle navigation systems	NR	NR
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting freeway conditions	www.dot.ca.gov		NR	
Telephone system for reporting freeway information to the public	1-800-427-ROAD		NR	
Organizations your agency sends information for dissemination to the public	CHP Media		NR	
Freeway Incident Management Section				
Methods used to distribute incident location and severity information				
to the public				
Technologies your agency uses to disseminate:	Telephone system, Internet Web sites, Cell phone/data, Media	Telephone system, Internet Web sites, Kiosks, In-vehicle navigation systems, Cell phone/data, Media	Dedicated cable TV, Kiosks	Dedicated cable TV, Internet Web sites, Kiosks
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting incident information	www.dot.ca.gov		NR	
Telephone system for reporting incident information to the public	1-800-427-ROAD		NR	
Organizations your agency sends information for dissemination to the public	CHP Media		For this information please contact our Transportation Management Center at 213-897-0340.	

Data Collection and Dissemination: Freeway Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Caltrans District 8	
	1999	**2005**
Agency Returned Survey?	Yes	
Freeway Management Section		
Data collected, archived, and/or transferred to another agency		
Collected by your agency	NR	Traffic volumes, Traffic speeds, Lane occupancy, Lane occupancy, Ramp queues, Metering rate, Road conditions, Route designations (snow emergency, etc.), Weather conditions, Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures, Highway operations coordination information
Archived by your agency	NR	Traffic volumes, Traffic speeds, Lane occupancy, Lane occupancy, Ramp queues, Metering rate, Road conditions, Route designations (snow emergency, etc.), Weather conditions, Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures, Highway operations coordination information

Agency Name	Caltrans District 8	
	1999	**2005**
Transferred to another agency by your agency	NR	Traffic volumes, Traffic speeds, Lane occupancy, Lane occupancy, Ramp queues, Metering rate, Road conditions, Route designations (snow emergency, etc.), Weather conditions, Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures, Highway operations coordination information
Importance of making information available to the public		
Ranked High	Traffic speeds, Road conditions, Weather conditions, Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures, Highway operations coordination information	
Ranked Medium	Traffic volumes, Lane occupancy, Route designations (snow emergency, etc.)	
Ranked Low	Lane occupancy, Probe vehicles, Ramp queues, Ramp meter preemption's, Metering rate, Intermodal (air, rail, water) connections	
Groups that make requests for the data	Universities, Media (I.e., TV stations, radio stations), Consultants, Advanced Traveler Information Systems (ATIS) provi	
What is the data used for?	Traffic analysis, Construction impact determination, Planning, Incident detection algorithm development, Roadway impact analysis, Accident prediction models, Dissemination to the public	
Methods used to disseminate freeway information to the public		

Data Collection and Dissemination: Freeway Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Caltrans District 8	
	1999	**2005**
Technologies your agency uses to disseminate:	Telephone system, Facsimile	Internet Web sites
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR
Internet web site reporting freeway conditions	NR	
Telephone system for reporting freeway information to the public	1-800-COMMUTE 1-800-427-7623	
Organizations your agency sends information for dissemination to the public	NR	
Freeway Incident Management Section		
Methods used to distribute incident location and severity information		
to the public		
Technologies your agency uses to disseminate:	Facsimile	NR
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR
Internet web site reporting incident information	NR	
Telephone system for reporting incident information to the public	NR	
Organizations your agency sends information for dissemination to the public	NR	

Appendix F
Arterial Management Components

Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Anaheim City		Caltrans District 12		Costa Mesa City		Garden Grove City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
ARTERIAL MANAGEMENT SECTION								
Number of arterial miles that agency owns or maintains	48		NR		191		NR	
Number of arterial miles that is used for planning	48		NR		35		NR	
Number of highway-rail intersections that agency maintains	18		5		0		NR	
Number of highway-rail intersections that is used for planning	18		NR		0		NR	
Type of facilities used to conduct arterial management activities								
Activities housed in a free-standing dedicated building?	No		No		No		No	
Activities housed in a building shared with other activities?	No		No		No		Yes	
Activities conducted in a dedicated control room?	Yes		No		Yes		No	
Control room contains operator console(s)?	Yes		No		Yes		Yes	
Control room contains electronic wall map?	Yes		No		Yes		Yes	
Control room contains CCTV display(s)?	Yes		No		Yes		Yes	
Activities conducted in a room containing workstations or PCs that manage traffic?	No		No		Yes		Yes	
Facilities are electronically linked to other transportation mgt facilities?	No		No		Yes		Yes	
Staffing and hours of operation of arterial management activities								
Number of full-time agency staff members	3		NR		12		NR	
Number of full time contractor staff members	NR		NR		0		NR	
Number of part-time agency staff members	3		NR		0		2	
Number of part-time contractor staff members	NR		NR		NR		NR	
Staffed 24 hours day by agency staff or by others	NR		NR		NR		NR	
Staffed during peak hours only by agency staff or by others	NR		NR		NR		agency	
Staffed by others during off-peak hours	No		No		No		No	
Agency staff perform transportation management as an ancillary duty	No		No		Yes		No	
Agency staff dedicated to transportation management duty	Yes		No		No		No	
Types of operations conducted for arterial management								
Incident detection and management?	No		No		Yes		Yes	
This metropolitan area?	No		No		Yes		Yes	
Other metropolitan area?	No		No		No		No	
Monitoring and troubleshooting status of system components?	No		No		Yes		No	
Radio communications with other agencies?	No		No		No		No	
Exchange of electronic data with other agencies such as computer aided dispatch?	No		No		Yes		No	
Manual override of traffic signal timing plans	No		No		Yes		Yes	
Operating transportation mgt roadside devices (e.g., VMS, CCTV, etc.)	No		No		Yes		Yes	

	Anaheim City		Caltrans District 12		Costa Mesa City		Garden Grove City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Describe agency's role in traffic signal control	All roads in incorporated area except state and county routes		NR		All roads in incorporated area except state routes		All roads in incorporated area except state routes	
Traffic Signals Operated by Agency								
Number of signalized intersections operated and owned by agency	282	312	NR	NR	110	112	105	113
Number of signalized intersections operated by agency but owned by another	8	8	NR	NR	0	0	2	NR
Total number of signalized intersections operated by agency	290	320	470	500	110	112	107	113
Characteristics of signalized intersections that agency operates								
Under closed loop or central system control	250	160	470	500	110	112	105	113
Under real-time traffic adaptive control using advanced software	40	160	NR	NR	0	0	0	0
Using SCOOT	Yes		No		No		No	
Using SCATS	No		No		No		No	
Name of software	NR		NR		NR		NR	
Allow signal preemption for emergency vehicles	0	0	57	60	5	5	0	0
Allow signal priority for transit vehicles	5	5	NR	NR	0	0	0	0
Within 200 feet of a highway-rail intersection	5	5	4	4	0	0	0	0
Within 200 feet of a highway-rail intersection that adjust signal timing	5	5	4	4	0	0	0	0
Software used to control the signals agency operates								
Date of last upgrade to traffic signal control system software?	8/1999		NR		4/99		July 1999	
How often do you update signal timing?	as needed		NR		monthly		every two years	
Software used and number of signalized intersections under control (1999, 2005)	SCOOT, 40, 160 MTCS, 250, 160		NR		Bi-Trans, 21, 21 IDC Multisonics, 110, 112		ECONOLITE AIRES, 105, 113 VMS, NR, NR	
Controllers used to control signals								
NEMA	245	120	0	0	110	112	105	113
170/179	0	0	0	0	21	21	0	0
2070 controller	45	200	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0

	Anaheim City		Caltrans District 12		Costa Mesa City		Garden Grove City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Technologies Associated with Highway-Rail Intersections								
Total number of highway-rail intersections under electronic surveillance	9	9	NR	5	NR	NR	10	57
Highway-Rail intersection capapbilities								
Video surveillance	0	0	0	0	0	0	5	45
Electronic surveillance other than video	9	9	0	0	0	0	0	0
Ability to predict train arrival electronically	0	0	0	0	0	0	0	0
Equipped with electronic traffic violator devices	0	0	0	0	0	0	5	12
Other	0	0	0	0	0	0	0	0
Real-Time Electronic Traffic Data Collection Technologies								
Total number of signalized intersections covered by electronic surveillance	65	160	NR	NR	5	48	120	128
Number of signalized intersections with data collection technologies								
Loop detectors	65	160	0	0	0	30	105	113
Video detection cameras	0	0	0	0	5	18	5	15
Probe readers reading toll tags	0	0	0	0	0	0	0	0
Probe readers reading license plates	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Roadside Technologies used to Distribute Traveler Information								
Number deployed								
Highway Advisory Radio	1	1	NR	NR	NR	NR	NR	NR
In-Vehicle Signing (IVS)	NR	NR	NR	NR	NR	NR	NR	NR
VMS controlling parking access	15	50	NR	NR	NR	NR	NR	NR
Miles covered								
Highway Advisory Radio	15	35	74	74	NR	NR	NR	NR
In-Vehicle Signing (IVS)	NR	NR	0	5	NR	NR	NR	NR
Variable Message Signs (VMS) on Arterials								
Candidate locations for deployment of VMS where VMS has been deployed	15	50	NR	NR	3	3	4	4
Candidate locations for deployment of VMS	4	30	NR	5	0	0	4	10
Communication Technologies								
Signalized intersections communicated with by each type of communication								
Twisted pair cable	NR	NR	0	0	131	133	52	0
Coaxial cable	0	0	0	0	0	0	0	0
Fiber-optic cable	250	308	0	0	0	0	36	113
Other (e.g., wireless, dial-up modems, leased lines, etc.)	10	0	0	0	0	0	0	0
Does agency convey information on highway-rail intersection crossing								
status to travelers via roadside media such as VMS or HAR?	No		No		No		No	
ITS Standards Used Related to Traffic Signal Control								
Advanced Transportation Controller (ATC) Software Application Interface (ITE 9603-1)	Yes		No		No		No	
ATC Physical Cabinet Functional Design (ITE-9603-2)	Yes		No		No		Yes	
ATC Functionality and Interface Definitions (ITE-9603-3)	Yes		No		No		No	
Natl. Trans. Communications for ITS Protocol (NTCIP) Class B Profile (AASHTO TS 3.3)	Yes		No		No		No	
NTCIP Data Collection and Monitoring Devices (AASHTO TS 3.DCM)	Yes		No		No		No	
NTCIP Object Definitions for Video Camera Control (AASHTO TS 3.VCC)	Yes		No		No		Yes	
NTCIP Object Definitions for Actuated Traffic Signal Controller Units (AASHTO TS 3.5)	Yes		No		No		No	

	Anaheim City		Caltrans District 12		Costa Mesa City		Garden Grove City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Would agency be willing to participate in testing of ITS Standards?	Yes		NR		Yes		Yes	
Have agreements in place with other agencies to use similar hardware								
and software to aid maintenance and interoperability?	No		NR		No		Yes	
INCIDENT MANAGEMENT ON ARTERIAL STREETS								
Receive information on highway-rail intersection crossing blockages for								
the purpose of managing incident response?	No		No		No		No	
Use of Service Patrols to Assist in Detection and Response to Incidents								
Publicly operated service patrol vehicles	No		No		No		No	
Privately operated service patrol vehicles operated under public contract	No		No		No		No	
Total number of arterial miles patrolled by these services	NR	NR	NR	NR	NR	NR	NR	NR
Miles Covered by Methods to Detect and Verify Incidents								
Free cellular phone call to a dedicated phone number other than 911	0	0	0	0	0	0	0	0
Free cellular phone call to an area radio station	0	0	0	0	0	0	0	0
Police patrols	25	48	0	0	0	0	283	283
Computer algorithms linked to traffic surveillance equipment	0	0	NR	74	0	0	0	0
CCTV	13	25	NR	30	6	18	25	115
Private sector sources (e.g., Shadow Traffic, Smart Routes)	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Procedures in place for Arterial Incident Response?								
Working agreement(s)/arrangement(s) with other agencies	No		No		No		Yes	
Inter-agency incident management admin. team that meets regularly	No		No		No		Yes	
Major incident response team that responds to major incidents	No		No		No		No	
Set of goals/objectives for incident mgt that has been adopted by agencies in region	No		No		No		Yes	
Methods of Communication Used On-Site at an Incident								
Police								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		Yes	
Other	No		No		No		No	
Fire								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		Yes	
Other	No		No		No		No	
DOT								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	

	Anaheim City		Caltrans District 12		Costa Mesa City		Garden Grove City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		Yes	
Other	No		No		No		No	
Towing								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Which police agencies typically respond to incidents on arterials?								
State Police	No		No		No		No	
County Police or Sheriff	No		No		No		No	
City Police	No		No		No		Yes	
Who provides on-site emergency medical response?								
Fire	No		No		No		Yes	
Emergency Management Service Agency	No		No		No		No	
Private hospital	No		No		No		No	
Has a multi-agency contact list been developed in area containing the								
names, phone numbers, etc. for the appropriate response personnel?	NR		NR		NR		Yes	
Is the Incident Command System used to manage incident scenes?	NR		NR		NR		No	
Is there a legal specification by state law or formal agreement as to who								
is "in charge" at the incident scene?								
Specified by state law?	No		No		No		No	
Formal agreement?	No		No		No		Yes	
Not specified or don't know?	No		No		No		No	
On-scene command post used to manage activities of responding agencies?	NR		NR		NR		No	
Are there communication linkages to a communications traffic/freeway mgt center?	NR		NR		NR		NR	
Plan developed and adopted by responding agencies for staging and parking								
response vehicles and equip. at incident site that minimizes lane blockage								
and facilitates the re-opening of lanes?	NR		NR		NR		Yes	
Respondents protected through law or court opinion for liability claims								
for damages to vehicles or cargoes during clearance activities?	NR		NR		NR		DK	
Are overturned tank trucks, which are intact and not leaking, uprighted								
without first off-loading?	NR		NR		NR		No	
Does your state or local jurisdiction have a law that requires drivers								
involved in property-damage-only accidents to move the vehicles								
from travel lanes to a safe location to exchange info and wait for police?	NR		NR		NR		Yes	
Have laws or policies regarding the removal of stalled/abandoned vehicles								
from freeway shoulders?	NR		NR		NR		Yes	
Hours abandoned vehicles are allowed to remain on a freeway shoulder?	NR		NR		NR		0-24	
Have policies or procedures for quick removal of vehicles?	NR		NR		NR		Yes	
Is Total Station equipment used to investigate major incidents?	NR		NR		NR		NR	

	Anaheim City		Caltrans District 12		Costa Mesa City		Garden Grove City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Handling of Towing Responses to Incidents								
Formal contract based on qualifications?	No		No		No		No	
Rotation with companies under contract?	No		No		No		Yes	
Separate lists kept for light and heavy response and for specialty recovery?	NR		NR		NR		Yes	
Rotation list with minimal qualifications?	No		No		No		No	
In towing qualifications, do you require towers to be certified under the								
Towing and Recovery Ass. of America's National Drivers Cert. Program?	NR		NR		NR		DK	
_____								
DK: Don't know								
NR: No Response								
Leg: Legislation or action being planned								

Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Glendale City		Huntington Beach City		Inglewood City		Long Beach City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
ARTERIAL MANAGEMENT SECTION								
Number of arterial miles that agency owns or maintains	NR		183		25		142	
Number of arterial miles that is used for planning	NR		183		25		142	
Number of highway-rail intersections that agency maintains	8		NR		7		40	
Number of highway-rail intersections that is used for planning	8		NR		5		40	
Type of facilities used to conduct arterial management activities								
Activities housed in a free-standing dedicated building?	No		No		No		No	
Activities housed in a building shared with other activities?	No		Yes		Yes		Yes	
Activities conducted in a dedicated control room?	Yes		Yes		Yes		Yes	
Control room contains operator console(s)?	Yes		Yes		No		Yes	
Control room contains electronic wall map?	Yes		No		No		No	
Control room contains CCTV display(s)?	Yes		No		No		Yes	
Activities conducted in a room containing workstations or PCs that manage traffic?	No		No		Yes		Yes	
Facilities are electronically linked to other transportation mgt facilities?	No		No		No		Yes	
Staffing and hours of operation of arterial management activities								
Number of full-time agency staff members	NR		2		NR		2	
Number of full time contractor staff members	NR		NR		NR		NR	
Number of part-time agency staff members	NR		2		NR		NR	
Number of part-time contractor staff members	NR		NR		NR		NR	
Staffed 24 hours day by agency staff or by others	NR		NR		NR		NR	
Staffed during peak hours only by agency staff or by others	NR		agency		NR		NR	
Staffed by others during off-peak hours	No		No		No		No	
Agency staff perform transportation management as an ancillary duty	Yes		No		No		Yes	
Agency staff dedicated to transportation management duty	No		No		No		No	
Types of operations conducted for arterial management								
Incident detection and management?	Yes		No		No		No	
This metropolitan area?	Yes		No		No		No	
Other metropolitan area?	No		No		No		No	
Monitoring and troubleshooting status of system components?	Yes		Yes		Yes		Yes	
Radio communications with other agencies?	No		No		No		No	
Exchange of electronic data with other agencies such as computer aided dispatch?	No		No		No		No	
Manual override of traffic signal timing plans	Yes		Yes		Yes		No	
Operating transportation mgt roadside devices (e.g., VMS, CCTV, etc.)	Yes		No		No		No	

	Glendale City		Huntington Beach City		Inglewood City		Long Beach City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Describe agency's role in traffic signal control	All roads in incorporated area except state routes		All roads in incorporated area except state and county routes		All roads in incorporated area		All roads in incorporated area except state routes	
Traffic Signals Operated by Agency								
Number of signalized intersections operated and owned by agency	199	210	114	130	NR	NR	455	460
Number of signalized intersections operated by agency but owned by another	0	23	0	50	NR	NR	62	80
Total number of signalized intersections operated by agency	199	233	114	180	144	NR	517	540
Characteristics of signalized intersections that agency operates								
Under closed loop or central system control	168	233	95	180	110	110	384	400
Under real-time traffic adaptive control using advanced software	0	0	0	0	0	110	0	20
Using SCOOT	No		No		No		No	
Using SCATS	No		No		No		No	
Name of software	NR		NR		NR		NR	
Allow signal preemption for emergency vehicles	2	19	94	130	0	NR	80	100
Allow signal priority for transit vehicles	0	17	0	0	0	NR	0	15
Within 200 feet of a highway-rail intersection	9	9	0	0	10	NR	34	34
Within 200 feet of a highway-rail intersection that adjust signal timing	9	9	0	0	10	NR	3	3
Software used to control the signals agency operates								
Date of last upgrade to traffic signal control system software?	2/99		1999		June 1994		1999	
How often do you update signal timing?	on a continuous and as needed basis		4 years		3 years		Annually	
Software used and number of signalized intersections under control (1999, 2005)	LA County LACO, 6, NR Caltrans C4 or Q5, 30, NR Caltrans C8 Version 3, 18, 18 BiTran Quicnet 4, 168, 215 VMS 320, NR, NR		BiTrans 233/Quicnet-2, 95, 180		BiTran System, 111, NR		BiTran Quicnet 4, 400, 500	
Controllers used to control signals								
NEMA	0	0	0	0	0	0	0	0
170/179	199	233	114	130	144	NR	517	497
2070 controller	0	0	0	0	0	0	NR	20
Other	0	0	0	0	0	0	0	0

	Glendale City		Huntington Beach City		Inglewood City		Long Beach City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Technologies Associated with Highway-Rail Intersections								
Total number of highway-rail intersections under electronic surveillance	1	0	10	60	10	10	32	42
Highway-Rail intersection capapbilities								
Video surveillance	0	0	0	10	0	10	4	10
Electronic surveillance other than video	0	0	0	0	10	NR	0	0
Ability to predict train arrival electronically	0	0	0	0	0	0	0	0
Equipped with electronic traffic violator devices	1	0	0	0	0	0	0	10
Other	0	0	10	50	0	0	0	0
Real-Time Electronic Traffic Data Collection Technologies								
Total number of signalized intersections covered by electronic surveillance	169	233	114	130	0	10	7	70
Number of signalized intersections with data collection technologies								
Loop detectors	168	228	104	80	0	0	0	40
Video detection cameras	1	5	10	50	0	0	7	20
Probe readers reading toll tags	0	0	0	0	0	0	0	0
Probe readers reading license plates	0	0	0	0	0	0	0	10
Other	0	0	0	0	0	10	0	0
Roadside Technologies used to Distribute Traveler Information								
Number deployed								
Highway Advisory Radio	NR	NR	0	130	NR	NR	NR	NR
In-Vehicle Signing (IVS)	NR	NR	0	100	NR	NR	NR	NR
VMS controlling parking access	0	10	0	5	NR	NR	0	10
Miles covered								
Highway Advisory Radio	NR	NR	0	NR	NR	NR	NR	NR
In-Vehicle Signing (IVS)	NR	NR	NR	NR	NR	NR	NR	NR
Variable Message Signs (VMS) on Arterials								
Candidate locations for deployment of VMS where VMS has been deployed	NR	NR	0	5	NR	NR	0	10
Candidate locations for deployment of VMS	NR	NR	0	5	NR	NR	NR	10
Communication Technologies								
Signalized intersections communicated with by each type of communication								
Twisted pair cable	168	183	39	39	111	NR	150	200
Coaxial cable	0	0	0	0	0	0	0	0
Fiber-optic cable	0	50	0	60	0	0	0	40
Other (e.g., wireless, dial-up modems, leased lines, etc.)	0	0	102	114	0	0	250	200
Does agency convey information on highway-rail intersection crossing								
status to travelers via roadside media such as VMS or HAR?	No		No		No		No	
ITS Standards Used Related to Traffic Signal Control								
Advanced Transportation Controller (ATC) Software Application Interface (ITE 9603-1)	No		No		No		No	
ATC Physical Cabinet Functional Design (ITE-9603-2)	No		No		No		No	
ATC Functionality and Interface Definitions (ITE-9603-3)	No		No		No		No	
Natl. Trans. Communications for ITS Protocol (NTCIP) Class B Profile (AASHTO TS 3.3)	No		Yes		No		No	
NTCIP Data Collection and Monitoring Devices (AASHTO TS 3.DCM)	No		Yes		No		No	
NTCIP Object Definitions for Video Camera Control (AASHTO TS 3.VCC)	No		Yes		No		No	
NTCIP Object Definitions for Actuated Traffic Signal Controller Units (AASHTO TS 3.5)	No		No		No		Yes	

	Glendale City		Huntington Beach City		Inglewood City		Long Beach City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Would agency be willing to participate in testing of ITS Standards?	No		Yes		No		No	
Have agreements in place with other agencies to use similar hardware								
and software to aid maintenance and interoperability?	Yes		No		No		No	
INCIDENT MANAGEMENT ON ARTERIAL STREETS								
Receive information on highway-rail intersection crossing blockages for								
the purpose of managing incident response?	No		No		No		No	
Use of Service Patrols to Assist in Detection and Response to Incidents								
Publicly operated service patrol vehicles	No		Yes		Yes		No	
Privately operated service patrol vehicles operated under public contract	No		No		No		No	
Total number of arterial miles patrolled by these services	NR	NR	NR	NR	25	NR	NR	NR
Miles Covered by Methods to Detect and Verify Incidents								
Free cellular phone call to a dedicated phone number other than 911	0	0	NR	3	0	0	0	0
Free cellular phone call to an area radio station	0	0	0	0	0	0	0	0
Police patrols	0	0	0	0	0	0	0	0
Computer algorithms linked to traffic surveillance equipment	0	0	0	0	0	0	0	0
CCTV	1	NR	NR	15	0	10	0	0
Private sector sources (e.g., Shadow Traffic, Smart Routes)	0	0	0	0	0	0	0	0
Other	0	0	0	0	25	25	0	0
Procedures in place for Arterial Incident Response?								
Working agreement(s)/arrangement(s) with other agencies	No		No		No		No	
Inter-agency incident management admin. team that meets regularly	No		No		No		No	
Major incident response team that responds to major incidents	No		No		Yes		Yes	
Set of goals/objectives for incident mgt that has been adopted by agencies in region	No		No		No		No	
Methods of Communication Used On-Site at an Incident								
Police								
Two-way radio	No		Yes		Yes		Yes	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		Yes		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Fire								
Two-way radio	No		Yes		No		Yes	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
DOT								
Two-way radio	No		No		No		Yes	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	

	Glendale City		Huntington Beach City		Inglewood City		Long Beach City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Towing								
Two-way radio	No		Yes	N/A	No		Yes	
800 MHz trunked radio	No		No	N/A	No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Which police agencies typically respond to incidents on arterials?								
State Police	No		No		No		No	
County Police or Sheriff	No		No		No		No	
City Police	Yes		Yes		Yes		Yes	
Who provides on-site emergency medical response?								
Fire	Yes		Yes		Yes		Yes	
Emergency Management Service Agency	No		No		No		No	
Private hospital	No		Yes		No		No	
Has a multi-agency contact list been developed in area containing the								
names, phone numbers, etc. for the appropriate response personnel?	No		DK		Yes		No	
Is the Incident Command System used to manage incident scenes?	No		No		Yes		Yes	
Is there a legal specification by state law or formal agreement as to who								
is "in charge" at the incident scene?								
Specified by state law?	No		No		No		No	
Formal agreement?	No		No		Yes		No	
Not specified or don't know?	Yes		Yes		No		Yes	
On-scene command post used to manage activities of responding agencies?	No		No		Yes		Yes	
Are there communication linkages to a communications traffic/freeway mgt center?	NR		NR		Yes		No	
Plan developed and adopted by responding agencies for staging and parking								
response vehicles and equip. at incident site that minimizes lane blockage								
and facilitates the re-opening of lanes?	No		No		Yes		No	
Respondents protected through law or court opinion for liability claims								
for damages to vehicles or cargoes during clearance activities?	No		DK		DK		DK	
Are overturned tank trucks, which are intact and not leaking, uprighted								
without first off-loading?	Yes		No		No		NR	
Does your state or local jurisdiction have a law that requires drivers								
involved in property-damage-only accidents to move the vehicles								
from travel lanes to a safe location to exchange info and wait for police?	Yes		No		Yes		NR	
Have laws or policies regarding the removal of stalled/abandoned vehicles								
from freeway shoulders?	No		Yes		NR		NR	
Hours abandoned vehicles are allowed to remain on a freeway shoulder?	DK		25-36		DK		NR	
Have policies or procedures for quick removal of vehicles?	No		No		NR		No	
Is Total Station equipment used to investigate major incidents?	No		No		Yes		NR	

	Glendale City		Huntington Beach City		Inglewood City		Long Beach City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Handling of Towing Responses to Incidents								
Formal contract based on qualifications?	Yes		Yes		No		No	
Rotation with companies under contract?	No		No		No		No	
Separate lists kept for light and heavy response and for specialty recovery?	NR		NR		NR		NR	
Rotation list with minimal qualifications?	No		No		No		No	
In towing qualifications, do you require towers to be certified under the								
Towing and Recovery Ass. of America's National Drivers Cert. Program?	DK		Yes		NR		NR	
_____								
DK: Don't know								
NR: No Response								
Leg: Legislation or action being planned								

Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Los Angeles City		Pasadena City		Pomona City		Riverside City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
ARTERIAL MANAGEMENT SECTION								
Number of arterial miles that agency owns or maintains	1,400		NR		60		110	
Number of arterial miles that is used for planning	NR		NR		60		NR	
Number of highway-rail intersections that agency maintains	NR		5		17		30	
Number of highway-rail intersections that is used for planning	NR		NR		17		NR	
Type of facilities used to conduct arterial management activities								
Activities housed in a free-standing dedicated building?	No		No		No		No	
Activities housed in a building shared with other activities?	No		No		No		Yes	
Activities conducted in a dedicated control room?	Yes		No		No		No	
Control room contains operator console(s)?	Yes		No		No		No	
Control room contains electronic wall map?	Yes		No		No		No	
Control room contains CCTV display(s)?	Yes		No		No		No	
Activities conducted in a room containing workstations or PCs that manage traffic?	Yes		No		Yes		Yes	
Facilities are electronically linked to other transportation mgt facilities?	No		No		No		No	
Staffing and hours of operation of arterial management activities								
Number of full-time agency staff members	NR		NR		NR		2	
Number of full time contractor staff members	NR		NR		NR		NR	
Number of part-time agency staff members	NR		NR		NR		NR	
Number of part-time contractor staff members	NR		NR		NR		NR	
Staffed 24 hours day by agency staff or by others	NR		NR		NR		NR	
Staffed during peak hours only by agency staff or by others	NR		NR		NR		agency	
Staffed by others during off-peak hours	No		No		No		No	
Agency staff perform transportation management as an ancillary duty	No		No		Yes		No	
Agency staff dedicated to transportation management duty	Yes		No		No		No	
Types of operations conducted for arterial management								
Incident detection and management?	Yes		No		No		No	
This metropolitan area?	Yes		No		No		No	
Other metropolitan area?	No		No		No		No	
Monitoring and troubleshooting status of system components?	Yes		No		Yes		Yes	
Radio communications with other agencies?	No		No		No		No	
Exchange of electronic data with other agencies such as computer aided dispatch?	Yes		No		No		No	
Manual override of traffic signal timing plans	Yes		No		No		No	
Operating transportation mgt roadside devices (e.g., VMS, CCTV, etc.)	Yes		No		No		No	

	Los Angeles City		Pasadena City		Pomona City		Riverside City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Describe agency's role in traffic signal control	All roads in incorporated area		NR		All roads in incorporated area except state and county routes		All roads in incorporated area except state routes	
Traffic Signals Operated by Agency								
Number of signalized intersections operated and owned by agency	NR	NR	NR	NR	149	170	283	295
Number of signalized intersections operated by agency but owned by another	NR	NR	NR	NR	1	2	NR	NR
Total number of signalized intersections operated by agency	4,295	4,415	290	300	148	168	283	295
Characteristics of signalized intersections that agency operates								
Under closed loop or central system control	2,449	3,577	290	300	64	120	85	100
Under real-time traffic adaptive control using advanced software	222	800	0	0	0	10	0	NR
Using SCOOT	No		No		No		No	
Using SCATS	No		No		No		No	
Name of software	ATCS (Adaptive Control System) in house software		NR		NR		NR	
Allow signal preemption for emergency vehicles	15	NR	4	10	0	0	75	NR
Allow signal priority for transit vehicles	70	500	0	6	0	16	0	NR
Within 200 feet of a highway-rail intersection	NR	NR	6	6	6	6	10	NR
Within 200 feet of a highway-rail intersection that adjust signal timing	NR	NR	6	6	6	6	10	NR
Software used to control the signals agency operates								
Date of last upgrade to traffic signal control system software?	1999		NR		1993		1998	
How often do you update signal timing?	as necessary		NR		1999 about every 2 years		once a year	
Software used and number of signalized intersections under control (1999, 2005)	UTCS/ATCS, NR, NR		NR		BiTrans, 149, 170		BiTrans QuicNet 4, 85, NR	
Controllers used to control signals								
NEMA	0	0	0	0	0	0	180	NR
170/179	4,265	4,365	0	0	149	170	103	NR
2070 controller	35	500	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0

	Los Angeles City		Pasadena City		Pomona City		Riverside City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Technologies Associated with Highway-Rail Intersections								
Total number of highway-rail intersections under electronic surveillance	NR	NR	1	5	NR	NR	NR	NR
Highway-Rail intersection capapbilities								
Video surveillance	0	0	0	0	0	0	0	0
Electronic surveillance other than video	0	0	0	0	0	0	0	0
Ability to predict train arrival electronically	0	0	0	0	0	0	0	0
Equipped with electronic traffic violator devices	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Real-Time Electronic Traffic Data Collection Technologies								
Total number of signalized intersections covered by electronic surveillance	NR	NR	NR	NR	NR	NR	NR	NR
Number of signalized intersections with data collection technologies								
Loop detectors	0	0	0	0	0	0	0	0
Video detection cameras	0	0	0	0	0	0	0	0
Probe readers reading toll tags	0	0	0	0	0	0	0	0
Probe readers reading license plates	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Roadside Technologies used to Distribute Traveler Information								
Number deployed								
Highway Advisory Radio	1	1	NR	NR	NR	NR	NR	NR
In-Vehicle Signing (IVS)	NR	NR	NR	NR	NR	NR	NR	NR
VMS controlling parking access	NR	NR	NR	NR	NR	NR	NR	NR
Miles covered								
Highway Advisory Radio	NR	NR	7	7	NR	NR	NR	NR
In-Vehicle Signing (IVS)	NR	NR	NR	NR	NR	NR	NR	NR
Variable Message Signs (VMS) on Arterials								
Candidate locations for deployment of VMS where VMS has been deployed	NR	NR	13	15	NR	NR	NR	NR
Candidate locations for deployment of VMS	17	20	13	15	NR	NR	NR	NR
Communication Technologies								
Signalized intersections communicated with by each type of communication								
Twisted pair cable	2,449	3,577	0	0	64	120	69	NR
Coaxial cable	0	0	0	0	0	0	0	0
Fiber-optic cable	0	0	0	0	0	0	0	0
Other (e.g., wireless, dial-up modems, leased lines, etc.)	0	0	0	0	0	0	16	0
Does agency convey information on highway-rail intersection crossing								
status to travelers via roadside media such as VMS or HAR?	No		No		No		No	
ITS Standards Used Related to Traffic Signal Control								
Advanced Transportation Controller (ATC) Software Application Interface (ITE 9603-1)	Yes		No		No		No	
ATC Physical Cabinet Functional Design (ITE-9603-2)	No		No		No		No	
ATC Functionality and Interface Definitions (ITE-9603-3)	Yes		No		No		No	
Natl. Trans. Communications for ITS Protocol (NTCIP) Class B Profile (AASHTO TS 3.3)	Yes		No		No		No	
NTCIP Data Collection and Monitoring Devices (AASHTO TS 3.DCM)	No		No		No		No	
NTCIP Object Definitions for Video Camera Control (AASHTO TS 3.VCC)	Yes		No		No		No	
NTCIP Object Definitions for Actuated Traffic Signal Controller Units (AASHTO TS 3.5)	No		No		No		No	

	Los Angeles City		Pasadena City		Pomona City		Riverside City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Would agency be willing to participate in testing of ITS Standards?	Yes		NR		Yes		Yes	
Have agreements in place with other agencies to use similar hardware								
and software to aid maintenance and interoperability?	No		NR		No		No	
INCIDENT MANAGEMENT ON ARTERIAL STREETS								
Receive information on highway-rail intersection crossing blockages for								
the purpose of managing incident response?	No		No		No		No	
Use of Service Patrols to Assist in Detection and Response to Incidents								
Publicly operated service patrol vehicles	No		No		No		No	
Privately operated service patrol vehicles operated under public contract	No		No		No		No	
Total number of arterial miles patrolled by these services	NR	NR	NR	NR	NR	NR	NR	NR
Miles Covered by Methods to Detect and Verify Incidents								
Free cellular phone call to a dedicated phone number other than 911	0	0	0	0	0	0	0	0
Free cellular phone call to an area radio station	0	0	0	0	0	0	0	0
Police patrols	0	0	0	0	0	0	0	0
Computer algorithms linked to traffic surveillance equipment	NR	NR	12	25	0	0	0	0
CCTV	NR	NR	12	25	0	0	0	0
Private sector sources (e.g., Shadow Traffic, Smart Routes)	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Procedures in place for Arterial Incident Response?								
Working agreement(s)/arrangement(s) with other agencies	No		No		No		No	
Inter-agency incident management admin. team that meets regularly	No		No		No		No	
Major incident response team that responds to major incidents	Yes		No		No		No	
Set of goals/objectives for incident mgt that has been adopted by agencies in region	No		No		No		No	
Methods of Communication Used On-Site at an Incident								
Police								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Fire								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
DOT								
Two-way radio	Yes		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	Yes		No		No		No	

	Los Angeles City		Pasadena City		Pomona City		Riverside City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Towing								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Which police agencies typically respond to incidents on arterials?								
State Police	No		No		No		No	
County Police or Sheriff	No		No		No		No	
City Police	Yes		No		No		No	
Who provides on-site emergency medical response?								
Fire	Yes		No		No		No	
Emergency Management Service Agency	No		No		No		No	
Private hospital	No		No		No		No	
Has a multi-agency contact list been developed in area containing the								
names, phone numbers, etc. for the appropriate response personnel?	Yes		NR		NR		NR	
Is the Incident Command System used to manage incident scenes?	Yes		NR		NR		NR	
Is there a legal specification by state law or formal agreement as to who								
is "in charge" at the incident scene?								
Specified by state law?	No		No		No		No	
Formal agreement?	No		No		No		No	
Not specified or don't know?	Yes		No		No		No	
On-scene command post used to manage activities of responding agencies?	Yes		NR		NR		NR	
Are there communication linkages to a communications traffic/freeway mgt center?	Yes		NR		NR		NR	
Plan developed and adopted by responding agencies for staging and parking								
response vehicles and equip. at incident site that minimizes lane blockage								
and facilitates the re-opening of lanes?	NR		NR		NR		NR	
Respondents protected through law or court opinion for liability claims								
for damages to vehicles or cargoes during clearance activities?	DK		NR		NR		NR	
Are overturned tank trucks, which are intact and not leaking, uprighted								
without first off-loading?	No		NR		NR		NR	
Does your state or local jurisdiction have a law that requires drivers								
involved in property-damage-only accidents to move the vehicles								
from travel lanes to a safe location to exchange info and wait for police?	Yes		NR		NR		NR	
Have laws or policies regarding the removal of stalled/abandoned vehicles								
from freeway shoulders?	Yes		NR		NR		NR	
Hours abandoned vehicles are allowed to remain on a freeway shoulder?	DK		NR		NR		NR	
Have policies or procedures for quick removal of vehicles?	Yes		NR		NR		NR	
Is Total Station equipment used to investigate major incidents?	No		No		NR		NR	

	Los Angeles City		Pasadena City		Pomona City		Riverside City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Handling of Towing Responses to Incidents								
Formal contract based on qualifications?	Yes		No		No		No	
Rotation with companies under contract?	No		No		No		No	
Separate lists kept for light and heavy response and for specialty recovery?	NR		NR		NR		NR	
Rotation list with minimal qualifications?	No		No		No		No	
In towing qualifications, do you require towers to be certified under the								
Towing and Recovery Ass. of America's National Drivers Cert. Program?	Yes		NR		NR		NR	
_____								
DK: Don't know								
NR: No Response								
Leg: Legislation or action being planned								

Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	San Bernardino City		Santa Ana City		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		14	
ARTERIAL MANAGEMENT SECTION						
Number of arterial miles that agency owns or maintains	115		NR		2,274	
Number of arterial miles that is used for planning	75		NR		568	
Number of highway-rail intersections that agency maintains	0		NR		130	
Number of highway-rail intersections that is used for planning	0		NR		88	
Type of facilities used to conduct arterial management activities						
Activities housed in a free-standing dedicated building?	No		No		0	
Activities housed in a building shared with other activities?	No		No		5	
Activities conducted in a dedicated control room?	No		No		7	
Control room contains operator console(s)?	No		No		7	
Control room contains electronic wall map?	No		No		5	
Control room contains CCTV display(s)?	No		No		6	
Activities conducted in a room containing workstations or PCs that manage traffic?	Yes		No		8	
Facilities are electronically linked to other transportation mgt facilities?	No		No		3	
Staffing and hours of operation of arterial management activities						
Number of full-time agency staff members	1		NR		0	
Number of full time contractor staff members	0		NR		0	
Number of part-time agency staff members	0		NR		0	
Number of part-time contractor staff members	0		NR		0	
Staffed 24 hours day by agency staff or by others	NR		NR		0	
Staffed during peak hours only by agency staff or by others	agency		NR		0	
Staffed by others during off-peak hours	No		No		0	
Agency staff perform transportation management as an ancillary duty	No		No		4	
Agency staff dedicated to transportation management duty	No		No		2	
Types of operations conducted for arterial management						
Incident detection and management?	No		No		4	
This metropolitan area?	No		No		4	
Other metropolitan area?	No		No		0	
Monitoring and troubleshooting status of system components?	Yes		No		9	
Radio communications with other agencies?	No		No		0	
Exchange of electronic data with other agencies such as computer aided dispatch?	No		No		2	
Manual override of traffic signal timing plans	Yes		No		7	
Operating transportation mgt roadside devices (e.g., VMS, CCTV, etc.)	No		No		4	

	San Bernardino City		Santa Ana City		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Describe agency's role in traffic signal control	All roads in incorporated area except state routes		NR			
Traffic Signals Operated by Agency						
Number of signalized intersections operated and owned by agency	225	240	NR	NR	1,922	2,042
Number of signalized intersections operated by agency but owned by another	20	25	NR	NR	93	188
Total number of signalized intersections operated by agency	245	265	253	260	7,465	7,701
Characteristics of signalized intersections that agency operates						
Under closed loop or central system control	142	160	253	260	4,975	6,325
Under real-time traffic adaptive control using advanced software	0	0	0	0	262	1,100
Using SCOOT	No		No		1	
Using SCATS	No		No		0	
Name of software	NR		NR			
Allow signal preemption for emergency vehicles	0	5	6	100	338	429
Allow signal priority for transit vehicles	0	0	0	0	75	559
Within 200 feet of a highway-rail intersection	5	5	2	2	91	71
Within 200 feet of a highway-rail intersection that adjust signal timing	3	3	2	2	58	38
Software used to control the signals agency operates						
Date of last upgrade to traffic signal control system software?	1994		NR			
How often do you update signal timing?	seldom		NR			
Software used and number of signalized intersections under control (1999, 2005)	BiTrans QuickNet, 150, 170		NR			
Controllers used to control signals						
NEMA	0	0	0	0	640	345
170/179	345	265	0	0	5,857	5,681
2070 controller	0	10	0	0	80	730
Other	0	0	0	0	0	0

	San Bernardino City		Santa Ana City		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Technologies Associated with Highway-Rail Intersections						
Total number of highway-rail intersections under electronic surveillance	NR	NR	NR	NR	73	188
Highway-Rail intersection capapbilities						
Video surveillance	0	0	0	0	9	75
Electronic surveillance other than video	0	0	0	0	19	9
Ability to predict train arrival electronically	0	0	0	0	0	0
Equipped with electronic traffic violator devices	0	0	0	0	6	22
Other	0	0	0	0	10	50
Real-Time Electronic Traffic Data Collection Technologies						
Total number of signalized intersections covered by electronic surveillance	12	30	NR	NR	492	809
Number of signalized intersections with data collection technologies						
Loop detectors	4	10	0	0	446	661
Video detection cameras	8	20	0	0	36	128
Probe readers reading toll tags	0	0	0	0	0	0
Probe readers reading license plates	0	0	0	0	0	10
Other	0	0	0	0	0	10
Roadside Technologies used to Distribute Traveler Information						
Number deployed						
Highway Advisory Radio	NR	NR	NR	NR	2	132
In-Vehicle Signing (IVS)	NR	NR	NR	NR	0	100
VMS controlling parking access	NR	NR	NR	NR	15	75
Miles covered						
Highway Advisory Radio	NR	NR	30	30	126	146
In-Vehicle Signing (IVS)	NR	NR	0	0	0	5
Variable Message Signs (VMS) on Arterials						
Candidate locations for deployment of VMS where VMS has been deployed	NR	NR	13	13	48	100
Candidate locations for deployment of VMS	NR	NR	13	13	51	108
Communication Technologies						
Signalized intersections communicated with by each type of communication						
Twisted pair cable	130	135	0	0	3,363	4,387
Coaxial cable	0	0	0	0	0	0
Fiber-optic cable	0	0	0	0	286	571
Other (e.g., wireless, dial-up modems, leased lines, etc.)	31	50	0	0	409	364
Does agency convey information on highway-rail intersection crossing						
status to travelers via roadside media such as VMS or HAR?	No		No		0	
ITS Standards Used Related to Traffic Signal Control						
Advanced Transportation Controller (ATC) Software Application Interface (ITE 9603-1)	No		No		2	
ATC Physical Cabinet Functional Design (ITE-9603-2)	No		No		2	
ATC Functionality and Interface Definitions (ITE-9603-3)	No		No		2	
Natl. Trans. Communications for ITS Protocol (NTCIP) Class B Profile (AASHTO TS 3.3)	No		No		3	
NTCIP Data Collection and Monitoring Devices (AASHTO TS 3.DCM)	No		No		2	
NTCIP Object Definitions for Video Camera Control (AASHTO TS 3.VCC)	No		No		4	
NTCIP Object Definitions for Actuated Traffic Signal Controller Units (AASHTO TS 3.5)	No		No		2	

	San Bernardino City		Santa Ana City		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Would agency be willing to participate in testing of ITS Standards?	Yes		NR		8	
Have agreements in place with other agencies to use similar hardware						
and software to aid maintenance and interoperability?	No		NR		2	
INCIDENT MANAGEMENT ON ARTERIAL STREETS						
Receive information on highway-rail intersection crossing blockages for						
the purpose of managing incident response?	No		No		0	
Use of Service Patrols to Assist in Detection and Response to Incidents						
Publicly operated service patrol vehicles	No		No		2	
Privately operated service patrol vehicles operated under public contract	No		No		0	
Total number of arterial miles patrolled by these services	NR	NR	NR	NR	25	0
Miles Covered by Methods to Detect and Verify Incidents						
Free cellular phone call to a dedicated phone number other than 911	0	0	0	0	0	3
Free cellular phone call to an area radio station	0	0	0	0	0	0
Police patrols	0	0	0	0	308	331
Computer algorithms linked to traffic surveillance equipment	0	0	0	0	12	99
CCTV	0	0	38	70	95	308
Private sector sources (e.g., Shadow Traffic, Smart Routes)	0	0	0	0	0	0
Other	0	0	0	0	25	25
Procedures in place for Arterial Incident Response?						
Working agreement(s)/arrangement(s) with other agencies	No		No		1	
Inter-agency incident management admin. team that meets regularly	No		No		1	
Major incident response team that responds to major incidents	No		No		3	
Set of goals/objectives for incident mgt that has been adopted by agencies in region	No		No		1	
Methods of Communication Used On-Site at an Incident					0	
Police						
Two-way radio	No		No		3	
800 MHz trunked radio	No		No		0	
Cellular telephone	No		No		0	
Hand-held (i.e., walkie-talkie)	No		No		1	
Automated data systems (i.e., CAD)	No		No		1	
Other	No		No		0	
Fire						
Two-way radio	No		No		2	
800 MHz trunked radio	No		No		0	
Cellular telephone	No		No		0	
Hand-held (i.e., walkie-talkie)	No		No		0	
Automated data systems (i.e., CAD)	No		No		1	
Other	No		No		0	
DOT						
Two-way radio	No		No		2	
800 MHz trunked radio	No		No		0	
Cellular telephone	No		No		1	

	San Bernardino City		Santa Ana City		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Hand-held (i.e., walkie-talkie)	No		No		0	
Automated data systems (i.e., CAD)	No		No		1	
Other	No		No		0	
Towing						
Two-way radio	No		No		2	
800 MHz trunked radio	No		No		0	
Cellular telephone	No		No		0	
Hand-held (i.e., walkie-talkie)	No		No		0	
Automated data systems (i.e., CAD)	No		No		0	
Other	No		No		0	
Which police agencies typically respond to incidents on arterials?						
State Police	No		No		0	
County Police or Sheriff	No		No		0	
City Police	No		No		6	
Who provides on-site emergency medical response?						
Fire	No		No		6	
Emergency Management Service Agency	No		No		0	
Private hospital	No		No		1	
Has a multi-agency contact list been developed in area containing the						
names, phone numbers, etc. for the appropriate response personnel?	NR		NR		3	
Is the Incident Command System used to manage incident scenes?	NR		NR		3	
Is there a legal specification by state law or formal agreement as to who						
is "in charge" at the incident scene?						
Specified by state law?	No		No		0	
Formal agreement?	No		No		2	
Not specified or don't know?	No		No		4	
On-scene command post used to manage activities of responding agencies?	NR		NR		3	
Are there communication linkages to a communications traffic/freeway mgt center?	NR		NR		2	
Plan developed and adopted by responding agencies for staging and parking						
response vehicles and equip. at incident site that minimizes lane blockage						
and facilitates the re-opening of lanes?	NR		NR		2	
Respondents protected through law or court opinion for liability claims						
for damages to vehicles or cargoes during clearance activities?	NR		NR		0	
Are overturned tank trucks, which are intact and not leaking, uprighted						
without first off-loading?	NR		NR		1	
Does your state or local jurisdiction have a law that requires drivers						
involved in property-damage-only accidents to move the vehicles						
from travel lanes to a safe location to exchange info and wait for police?	NR		NR		4	
Have laws or policies regarding the removal of stalled/abandoned vehicles						
from freeway shoulders?	NR		NR		3	
Hours abandoned vehicles are allowed to remain on a freeway shoulder?	NR		NR		0	
Have policies or procedures for quick removal of vehicles?	NR		NR		2	
Is Total Station equipment used to investigate major incidents?	NR		NR		1	

	San Bernardino City		Santa Ana City		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Handling of Towing Responses to Incidents						
Formal contract based on qualifications?	No		No		3	
Rotation with companies under contract?	No		No		1	
Separate lists kept for light and heavy response and for specialty recovery?	NR		NR		1	
Rotation list with minimal qualifications?	No		No		0	
In towing qualifications, do you require towers to be certified under the						
Towing and Recovery Ass. of America's National Drivers Cert. Program?	NR		NR		2	
_____						
DK: Don't know						
NR: No Response						
Leg: Legislation or action being planned						

Appendix G
Arterial Management Integration

Arterial Management Integration
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Anaheim City		Caltrans District 12	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Arterial Mgt. agencies in metropolitan area with which you share info.				
Share Timing Plans Information	Caltrans District 12, Garden Grove City	Garden Grove City	short survey	None listed
Coordinate Changes to Timing Plans	Caltrans District 12, Garden Grove City	Caltrans District 12, Garden Grove City	short survey	None listed
Turn over Control of Signals	Caltrans District 12, Garden Grove City	Caltrans District 12, Garden Grove City	short survey	None listed
Agencies your agency provides arterial travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	Caltrans District 12	Caltrans District 12	short survey	None listed
Share Infrastructure	Caltrans District 12	Caltrans District 12	None listed	None listed
Coordinate Operation	Caltrans District 12	Caltrans District 12	None listed	None listed
Incident Management Agencies				
Provide Information	Caltrans District 12	Caltrans District 12, OCTA	short survey	None listed
Share Infrastructure	Caltrans District 12	Caltrans District 12	None listed	None listed
Coordinate Operation	Caltrans District 12	Caltrans District 12	None listed	None listed
Public Transit Operators Agencies				
Provide Information	None listed	Orange County Transportation Authority	None listed	None listed

Agency Name	Anaheim City		Caltrans District 12	
	1999	**2005**	**1999**	**2005**
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Arterial Management Agencies				
Provide Information	Caltrans District 12	Caltrans District 12	None listed	None listed
Share Infrastructure	Caltrans District 12	Caltrans District 12	None listed	None listed
Coordinate Operation	Caltrans District 12	Caltrans District 12	None listed	None listed
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	Caltrans District 12, Caltrans District 7	Caltrans District 12, Caltrans District 7	short survey	None listed
Public Transit operators from which your agency receives				
arterial travel times derived from vehicle probes	Orange County Transportation Authority	Orange County Transportation Authority	None listed	None listed
Incident Management agencies from which your agency receives				
incident clearance and/or incident severity, location, and type information				
Receive information on Incident Clearance	Caltrans District 12	Caltrans District 12	None listed	None listed

Agency Name	Anaheim City		Caltrans District 12	
	1999	**2005**	**1999**	**2005**
Receive information on Incident Severity, Location, and Type	Caltrans District 12	Caltrans District 12	None listed	None listed
Toll Collection agencies from which your agency receives arterial travel				
times derived from vehicles probes	None listed	None listed	None listed	None listed
Arterial Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Emergency Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Freeway Management Agencies				
Provide Information	None listed	None listed	short survey	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				
Emergency Management agencies from which your agency receives				
arterial incident clearance and/or arterial incident severity				

Arterial Management Integration
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Anaheim City		Caltrans District 12	
	1999	**2005**	**1999**	**2005**
Receive Arterial Incident Clearance Information	None listed	None listed	short survey	None listed
Receive Arterial Incident Severity Information	None listed	None listed	short survey	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	None listed	short survey	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	None listed	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Costa Mesa City	
	1999	**2005**
Agency Returned Survey?	Yes	
Arterial Management Section		
Arterial Mgt. agencies in metropolitan area with which you share info.		
Share Timing Plans Information	Caltrans District 12, Costa Mesa City, Santa Ana City	OCTA
Coordinate Changes to Timing Plans	Caltrans District 12, Costa Mesa City, Santa Ana City	Huntington Beach City, OCTA
Turn over Control of Signals	None listed	None listed
Agencies your agency provides arterial travel times, speeds, and		
conditions information, share infrastructure or coordinates operation		
Freeway Management Agencies		
Provide Information	Caltrans District 12	OCTA, Santa Ana City
Share Infrastructure	Caltrans District 12	OCTA, Santa Ana City
Coordinate Operation	Caltrans District 12	OCTA, Santa Ana City
Incident Management Agencies		
Provide Information	Caltrans District 12	OCTA
Share Infrastructure	None listed	Caltrans District 12, OCTA
Coordinate Operation	None listed	Caltrans District 12, OCTA
Public Transit Operators Agencies		
Provide Information	None listed	None listed

Agency Name	Costa Mesa City	
	1999	**2005**
Share Infrastructure	None listed	None listed
Coordinate Operation	None listed	None listed
Arterial Management Agencies		
Provide Information	Caltrans District 12, Costa Mesa City, Santa Ana City	Huntington Beach City, OCTA
Share Infrastructure	Caltrans District 12, Costa Mesa City, Santa Ana City	Huntington Beach City, OCTA
Coordinate Operation	Caltrans District 12, Costa Mesa City, Santa Ana City	Huntington Beach City, OCTA
Receiving real-time information via electronic means from others		
Freeway Management agencies from which your agency receives		
freeway travel times, speeds, and conditions	None listed	Caltrans District 12
Public Transit operators from which your agency receives		
arterial travel times derived from vehicle probes	None listed	None listed
Incident Management agencies from which your agency receives		
incident clearance and/or incident severity, location, and type information		
Receive information on Incident Clearance	None listed	Caltrans District 12, OCTA

Agency Name	Costa Mesa City	
	1999	**2005**
Receive information on Incident Severity, Location, and Type	None listed	Caltrans District 12, OCTA
Toll Collection agencies from which your agency receives arterial travel		
times derived from vehicles probes	None listed	None listed
Arterial Incident Management Section		
Agencies your agency provides incident severity, location, and type info.		
and/or shares infrastructure and/or coordinates operation		
Emergency Management Agencies		
Provide Information	Costa Mesa Police Department	Huntington Beach City, Santa Ana City Fire Department, Santa Ana City Police Department
Share Infrastructure	Costa Mesa Police Department	Huntington Beach City, Santa Ana City Fire Department, Santa Ana City Police Department
Coordinate Operation	Costa Mesa Police Department	Huntington Beach City, Santa Ana City Fire Department, Santa Ana City Police Department
Freeway Management Agencies		
Provide Information	None listed	Caltrans District 12, OCTA
Share Infrastructure	None listed	Caltrans District 12, OCTA
Coordinate Operation	None listed	Caltrans District 12, OCTA
Public Transit Operators		
Provide Information	None listed	None listed
Share Infrastructure	None listed	None listed
Coordinate Operation	None listed	None listed
Receiving real-time information via electronic means from others		
Emergency Management agencies from which your agency receives		
arterial incident clearance and/or arterial incident severity		

Agency Name	Costa Mesa City	
	1999	**2005**
Receive Arterial Incident Clearance Information	Costa Mesa Police Department	Huntington Beach City, Santa Ana City Fire Department, Santa Ana City Police Department, OCTA
Receive Arterial Incident Severity Information	Costa Mesa Police Department	Huntington Beach City, Santa Ana City Fire Department, Santa Ana City Police Department, OCTA
Arterial Management agencies from which your agency receives		
arterial travel times, speeds, and conditions	Costa Mesa City	Caltrans District 12, Huntington Beach City, Santa Ana City
Freeway Management agencies from which your agency receives		
freeway travel times, speeds, and conditions	Caltrans District 12	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Garden Grove City	
	1999	**2005**
Agency Returned Survey?	Yes	
Arterial Management Section		
Arterial Mgt. agencies in metropolitan area with which you share info.		
Share Timing Plans Information	Anaheim City, Caltrans District 12, Garden Grove City	Garden Grove City
Coordinate Changes to Timing Plans	Anaheim City, Caltrans District 12, Garden Grove City	Anaheim City, Caltrans District 12, Garden Grove City
Turn over Control of Signals	Garden Grove City	Caltrans District 12, Garden Grove City
Agencies your agency provides arterial travel times, speeds, and		
conditions information, share infrastructure or coordinates operation		
Freeway Management Agencies		
Provide Information	Caltrans District 12	Caltrans District 12
Share Infrastructure	Caltrans District 12	Caltrans District 12
Coordinate Operation	Caltrans District 12	Caltrans District 12
Incident Management Agencies		
Provide Information	Caltrans District 12	Caltrans District 12
Share Infrastructure	Caltrans District 12	Caltrans District 12
Coordinate Operation	Caltrans District 12	Caltrans District 12
Public Transit Operators Agencies		
Provide Information	Orange County Transportation Authority	Orange County Transportation Authority

Agency Name	Garden Grove City	
	1999	**2005**
Share Infrastructure	Orange County Transportation Authority	Orange County Transportation Authority
Coordinate Operation	None listed	None listed
Arterial Management Agencies		
Provide Information	Caltrans District 12, Santa Ana City	Caltrans District 12, Santa Ana City
Share Infrastructure	Caltrans District 12, Santa Ana City	Caltrans District 12, Santa Ana City
Coordinate Operation	Caltrans District 12, Santa Ana City	Caltrans District 12, Santa Ana City
Receiving real-time information via electronic means from others		
Freeway Management agencies from which your agency receives		
freeway travel times, speeds, and conditions	Caltrans District 12, Santa Ana City	Caltrans District 12, Santa Ana City
Public Transit operators from which your agency receives		
arterial travel times derived from vehicle probes	None listed	None listed
Incident Management agencies from which your agency receives		
incident clearance and/or incident severity, location, and type information		
Receive information on Incident Clearance	Caltrans District 12	Caltrans District 12

Agency Name	Garden Grove City	
	1999	**2005**
Receive information on Incident Severity, Location, and Type	Caltrans District 12	Caltrans District 12
Toll Collection agencies from which your agency receives arterial travel		
times derived from vehicles probes	None listed	None listed
Arterial Incident Management Section		
Agencies your agency provides incident severity, location, and type info.		
and/or shares infrastructure and/or coordinates operation		
Emergency Management Agencies		
Provide Information	Caltrans District 12, Garden Grove City Fire & EMS Department, Garden Grove City Police Department	None listed
Share Infrastructure	Caltrans District 12, Garden Grove City Police Department	None listed
Coordinate Operation	Caltrans District 12, Garden Grove City Police Department	None listed
Freeway Management Agencies		
Provide Information	Caltrans District 12	None listed
Share Infrastructure	Caltrans District 12	None listed
Coordinate Operation	Caltrans District 12	None listed
Public Transit Operators		
Provide Information	Orange County Transportation Authority	None listed
Share Infrastructure	Orange County Transportation Authority	None listed
Coordinate Operation	Orange County Transportation Authority	None listed
Receiving real-time information via electronic means from others		
Emergency Management agencies from which your agency receives		
arterial incident clearance and/or arterial incident severity		

Agency Name	Garden Grove City	
	1999	**2005**
Receive Arterial Incident Clearance Information	None listed	None listed
Receive Arterial Incident Severity Information	None listed	None listed
Arterial Management agencies from which your agency receives		
arterial travel times, speeds, and conditions	Caltrans District 12, Santa Ana City	None listed
Freeway Management agencies from which your agency receives		
freeway travel times, speeds, and conditions	Caltrans District 12	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Glendale City		Huntington Beach City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Arterial Mgt. agencies in metropolitan area with which you share info.				
Share Timing Plans Information	None listed	Burbank City	None listed	None listed
Coordinate Changes to Timing Plans	None listed	Caltrans District 7, Los Angeles City, Burbank City	Fountain Valley City, Westminister City, Seal Beach City	Fountain Valley City, Westminister City, Seal Beach City
Turn over Control of Signals	None listed	None listed	None listed	None listed
Agencies your agency provides arterial travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	None listed	Caltrans District 7	None listed	Caltrans District 12
Share Infrastructure	None listed	None listed	None listed	Caltrans District 12
Coordinate Operation	None listed	Caltrans District 7	None listed	Caltrans District 12
Incident Management Agencies				
Provide Information	None listed	Caltrans District 7, Burbank City, Los Angeles City	None listed	Caltrans District 12, Fountain Valley City, Seal Beach City, Westminister City
Share Infrastructure	None listed	None listed	None listed	Caltrans District 12, Fountain Valley City, Seal Beach City, Westminister City
Coordinate Operation	None listed	Caltrans District 7, Burbank City, Los Angeles City	None listed	Caltrans District 12, Fountain Valley City, Seal Beach City, Westminister City
Public Transit Operators Agencies				
Provide Information	None listed	None listed	None listed	Orange County Transportation Authority

Agency Name	Glendale City		Huntington Beach City	
	1999	**2005**	**1999**	**2005**
Share Infrastructure	None listed	None listed	None listed	Orange County Transportation Authority
Coordinate Operation	None listed	None listed	None listed	Orange County Transportation Authority
Arterial Management Agencies				
Provide Information	None listed	Los Angeles City, Burbank City	None listed	Caltrans District 12, Costa Mesa City, Huntington Beach City
Share Infrastructure	None listed	None listed	None listed	Caltrans District 12, Costa Mesa City, Huntington Beach City
Coordinate Operation	None listed	Los Angeles City, Burbank City	None listed	Caltrans District 12, Costa Mesa City, Huntington Beach City
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	Caltrans District 7	None listed	Caltrans District 12, Fountain Valley City, Seal Beach City, Westminister City
Public Transit operators from which your agency receives				
arterial travel times derived from vehicle probes	None listed	None listed	None listed	Orange County Transportation Authority
Incident Management agencies from which your agency receives				
incident clearance and/or incident severity, location, and type information				
Receive information on Incident Clearance	Caltrans District 7	Caltrans District 7	None listed	Caltrans District 12, OCTA

Agency Name	Glendale City		Huntington Beach City	
	1999	**2005**	**1999**	**2005**
Receive information on Incident Severity, Location, and Type	Caltrans District 7	Caltrans District 7	None listed	Caltrans District 12, OCTA
Toll Collection agencies from which your agency receives arterial travel				
times derived from vehicles probes	None listed	None listed	None listed	Caltrans, Transportation Corridor Agencies
Arterial Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Emergency Management Agencies				
Provide Information	None listed	Caltrans District 7	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	Caltrans District 7	None listed	None listed
Freeway Management Agencies				
Provide Information	None listed	Caltrans District 7	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	Caltrans District 12
Coordinate Operation	None listed	Caltrans District 7	None listed	None listed
Public Transit Operators				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				
Emergency Management agencies from which your agency receives				
arterial incident clearance and/or arterial incident severity				

Agency Name	Glendale City		Huntington Beach City	
	1999	**2005**	**1999**	**2005**
Receive Arterial Incident Clearance Information	None listed	Caltrans District 7, Burbank City	None listed	None listed
Receive Arterial Incident Severity Information	None listed	Caltrans District 7, Burbank City	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	Caltrans District 7, Los Angeles City, Burbank City	None listed	Fountain Valley City, Westminister City, Caltrans District 12
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	Caltrans District 7	None listed	Caltrans District 12

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Inglewood City		Long Beach City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Arterial Mgt. agencies in metropolitan area with which you share info.				
Share Timing Plans Information	None listed	L.A. Department of Airports	Caltrans District 7, Lakewood City, Signal Hill City	Signal Hill City
Coordinate Changes to Timing Plans	None listed	Caltrans District 7, Los Angeles City, Los Angeles County, L.A. Department of Airports	Caltrans District 7, Lakewood City, Signal Hill City	Caltrans District 7, Lakewood City, Signal Hill City
Turn over Control of Signals	None listed	None listed	None listed	None listed
Agencies your agency provides arterial travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	None listed	Caltrans District 7	Caltrans District 7	Caltrans District 7
Share Infrastructure	None listed	None listed	Caltrans District 7	Caltrans District 7
Coordinate Operation	None listed	Caltrans District 7	Caltrans District 7	Caltrans District 7
Incident Management Agencies				
Provide Information	None listed	Caltrans District 7	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	Caltrans District 7	None listed	None listed
Public Transit Operators Agencies				
Provide Information	None listed	LACMTA Lines	Long Beach Public Transportation Company, MTA	Long Beach Public Transportation Company, MTA

Agency Name	Inglewood City		Long Beach City	
	1999	**2005**	**1999**	**2005**
Share Infrastructure	None listed	None listed	Long Beach Public Transportation Company	Long Beach Public Transportation Company
Coordinate Operation	None listed	LACMTA Lines	Long Beach Public Transportation Company, MTA	Long Beach Public Transportation Company, MTA
Arterial Management Agencies				
Provide Information	None listed	Caltrans District 7, Los Angeles City, Los Angeles County, L,A, World Airports	Lakewood City, Signal Hill City	Lakewood City, Signal Hill City
Share Infrastructure	None listed	None listed	Lakewood City, Signal Hill City	Lakewood City, Signal Hill City
Coordinate Operation	None listed	Caltrans District 7, Los Angeles City, Los Angeles County, L,A, World Airports	Lakewood City, Signal Hill City	Lakewood City, Signal Hill City
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	Caltrans District 7	Caltrans District 12, Caltrans District 7	Caltrans District 12, Caltrans District 7
Public Transit operators from which your agency receives				
arterial travel times derived from vehicle probes	None listed	None listed	None listed	Long Beach Public Transportation Company
Incident Management agencies from which your agency receives				
incident clearance and/or incident severity, location, and type information				
Receive information on Incident Clearance	None listed	None listed	None listed	Caltrans District 7

Agency Name	Inglewood City		Long Beach City	
	1999	**2005**	**1999**	**2005**
Receive information on Incident Severity, Location, and Type	None listed	None listed	None listed	Caltrans District 7
Toll Collection agencies from which your agency receives arterial travel				
times derived from vehicles probes	None listed	None listed	None listed	None listed
Arterial Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Emergency Management Agencies				
Provide Information	Inglewood City Fire Department, Inglewood City Police Department	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Freeway Management Agencies				
Provide Information	Caltrans District 7	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators				
Provide Information	MTA	None listed	None listed	Long Beach Public Transportation Company
Share Infrastructure	None listed	None listed	None listed	Long Beach Public Transportation Company
Coordinate Operation	None listed	None listed	None listed	Long Beach Public Transportation Company
Receiving real-time information via electronic means from others				
Emergency Management agencies from which your agency receives				
arterial incident clearance and/or arterial incident severity				

Arterial Management Integration
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Inglewood City		Long Beach City	
	1999	**2005**	**1999**	**2005**
Receive Arterial Incident Clearance Information	Caltrans District 7	None listed	None listed	None listed
Receive Arterial Incident Severity Information	Caltrans District 7	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	Caltrans District 7, Los Angeles City, Los Angeles County	None listed	None listed	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	Caltrans District 7	None listed	None listed	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Los Angeles City		Pasadena City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Arterial Mgt. agencies in metropolitan area with which you share info.				
Share Timing Plans Information	None listed	Los Angeles County	None listed	None listed
Coordinate Changes to Timing Plans	None listed	Caltrans District 7, Glendale City, Los Angeles County	short survey	None listed
Turn over Control of Signals	None listed	None listed	None listed	None listed
Agencies your agency provides arterial travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Incident Management Agencies				
Provide Information	Caltrans District 7	Caltrans District 7, Los Angeles County	None listed	None listed
Share Infrastructure	Caltrans District 7	Caltrans District 7, Los Angeles County	None listed	None listed
Coordinate Operation	Caltrans District 7	Caltrans District 7, Los Angeles County	None listed	None listed
Public Transit Operators Agencies				
Provide Information	None listed	None listed	None listed	None listed

Agency Name	Los Angeles City		Pasadena City	
	1999	**2005**	**1999**	**2005**
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Arterial Management Agencies				
Provide Information	Caltrans District 7, Glendale City	Caltrans District 7, Glendale City, Los Angeles County	None listed	None listed
Share Infrastructure	Caltrans District 7, Glendale City	Caltrans District 7, Glendale City, Los Angeles County	None listed	None listed
Coordinate Operation	Caltrans District 7, Glendale City	Caltrans District 7, Glendale City, Los Angeles County	None listed	None listed
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	Caltrans District 7	Caltrans District 7	None listed	None listed
Public Transit operators from which your agency receives				
arterial travel times derived from vehicle probes	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives				
incident clearance and/or incident severity, location, and type information				
Receive information on Incident Clearance	None listed	None listed	None listed	None listed

Agency Name	Los Angeles City		Pasadena City	
	1999	**2005**	**1999**	**2005**
Receive information on Incident Severity, Location, and Type	None listed	None listed	None listed	None listed
Toll Collection agencies from which your agency receives arterial travel				
times derived from vehicles probes	None listed	None listed	None listed	None listed
Arterial Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Emergency Management Agencies				
Provide Information	Caltrans District 7	Caltrans District 7	None listed	None listed
Share Infrastructure	Caltrans District 7	Caltrans District 7	None listed	None listed
Coordinate Operation	Caltrans District 7	Caltrans District 7	None listed	None listed
Freeway Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				
Emergency Management agencies from which your agency receives				
arterial incident clearance and/or arterial incident severity				

Arterial Management Integration
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Los Angeles City		Pasadena City	
	1999	**2005**	**1999**	**2005**
Receive Arterial Incident Clearance Information	None listed	None listed	None listed	None listed
Receive Arterial Incident Severity Information	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	None listed	None listed	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	Caltrans District 7	Caltrans District 7	None listed	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Pomona City		Riverside City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Arterial Mgt. agencies in metropolitan area with which you share info.				
Share Timing Plans Information	None listed	None listed	Caltrans District 8	Caltrans District 8
Coordinate Changes to Timing Plans	None listed	None listed	Caltrans District 8	Caltrans District 8
Turn over Control of Signals	None listed	None listed	None listed	None listed
Agencies your agency provides arterial travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Incident Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators Agencies				
Provide Information	None listed	None listed	None listed	None listed

Agency Name	Pomona City		Riverside City	
	1999	**2005**	**1999**	**2005**
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Arterial Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	None listed	None listed
Public Transit operators from which your agency receives				
arterial travel times derived from vehicle probes	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives				
incident clearance and/or incident severity, location, and type information				
Receive information on Incident Clearance	None listed	None listed	None listed	None listed

Agency Name	Pomona City		Riverside City	
	1999	**2005**	**1999**	**2005**
Receive information on Incident Severity, Location, and Type	None listed	None listed	None listed	None listed
Toll Collection agencies from which your agency receives arterial travel				
times derived from vehicles probes	None listed	None listed	None listed	None listed
Arterial Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Emergency Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Freeway Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				
Emergency Management agencies from which your agency receives				
arterial incident clearance and/or arterial incident severity				

Arterial Management Integration
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Pomona City		Riverside City	
	1999	**2005**	**1999**	**2005**
Receive Arterial Incident Clearance Information	None listed	None listed	None listed	None listed
Receive Arterial Incident Severity Information	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	None listed	None listed	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	None listed	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	San Bernardino City		Santa Ana City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Arterial Mgt. agencies in metropolitan area with which you share info.				
Share Timing Plans Information	Caltrans District 8	Caltrans District 8	short survey	None listed
Coordinate Changes to Timing Plans	Caltrans District 8	Caltrans District 8	short survey	None listed
Turn over Control of Signals	Caltrans District 8	Caltrans District 8	None listed	None listed
Agencies your agency provides arterial travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	Caltrans District 8	Caltrans District 8	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	Caltrans District 8	Caltrans District 8	None listed	None listed
Incident Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators Agencies				
Provide Information	None listed	None listed	None listed	None listed

Agency Name	San Bernardino City		Santa Ana City	
	1999	**2005**	**1999**	**2005**
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Arterial Management Agencies				
Provide Information	Caltrans District 8	Caltrans District 8	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	Caltrans District 8	Caltrans District 8	None listed	None listed
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	short survey	None listed
Public Transit operators from which your agency receives				
arterial travel times derived from vehicle probes	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives				
incident clearance and/or incident severity, location, and type information				
Receive information on Incident Clearance	None listed	None listed	None listed	None listed

Agency Name	San Bernardino City		Santa Ana City	
	1999	**2005**	**1999**	**2005**
Receive information on Incident Severity, Location, and Type	None listed	None listed	None listed	None listed
Toll Collection agencies from which your agency receives arterial travel				
times derived from vehicles probes	None listed	None listed	None listed	None listed
Arterial Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Emergency Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Freeway Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				
Emergency Management agencies from which your agency receives				
arterial incident clearance and/or arterial incident severity				

Arterial Management Integration
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	San Bernardino City		Santa Ana City	
	1999	**2005**	**1999**	**2005**
Receive Arterial Incident Clearance Information	None listed	None listed	None listed	None listed
Receive Arterial Incident Severity Information	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	None listed	None listed	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	None listed	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Appendix H
Arterial Management Information Collection and Dissemination

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Anaheim City		Caltrans District 12	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Data collected, archived, and/or transferred to another agency				
Collected by your agency	Traffic volumes, Turning movements, Phasing/cycle lengths, Emergency vehicle signal preemption	Traffic volumes, Traffic speeds, Lane occupancy, Turning movements, Phasing/cycle lengths, Current work zones	NR	NR
Archived by your agency	NR	NR	NR	NR
Transferred to another agency by your agency	NR	NR	NR	NR
Importance of making information available to the public				

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Anaheim City		Caltrans District 12	
	1999	**2005**	**1999**	**2005**
Ranked High	NR		NR	
Ranked Medium	NR		NR	
Ranked Low	Traffic volumes, Turning movements, Phasing/cycle lengths, Emergency vehicle signal preemption		NR	
Groups that make requests for the data	State DOT personnel, Universities, Media (I.e., TV stations, radio stations), MPOs, Consultants, Advanced Traveler Information Systems (ATIS) provi		NR	
What is the data used for?	Traffic analysis, Construction impact determination, Planning, Incident detection algorithm development, Dissemination to the public		NR	
Methods used to disseminate arterial information to the public				
Technologies your agency uses to disseminate:	Dedicated cable TV, Internet Web sites, Kiosks	Dedicated cable TV, Internet Web sites, Kiosks	NR	Dedicated cable TV, Telephone system, Internet Web sites, Pagers or personal data assistants, Interactive TV, Kiosks, E-mail or other direct PC communication, In-vehicle navigation systems
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Anaheim City		Caltrans District 12	
	1999	**2005**	**1999**	**2005**
Internet web site reporting arterial conditions	www.anaheim.net		NR	
Telephone system for reporting arterial information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	1. Orange County Transportation Authority□ 2.. Caltrans		NR	
Arterial Incident Management Section				
Methods used to distribute incident location and severity information				
to the public				
Technologies your agency uses to disseminate:	NR	NR	NR	Dedicated cable TV, Telephone system, Internet Web sites, Pagers or personal data assistants, Interactive TV, Kiosks, E-mail or other direct PC communication, In-vehicle navigation systems
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting incident information	NR		NR	
Telephone system for reporting incident information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Costa Mesa City		Garden Grove City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Data collected, archived, and/or transferred to another agency				
Collected by your agency	Traffic volumes, Traffic speeds, Turning movements, Road conditions, Emergency vehicle signal preemption, Phasing/cycle lengths	Lane occupancy, Vehicle classification, Queues, Route designations (snow emergency, etc.), Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures, Highway operations coordination information	Traffic volumes, Traffic speeds, Lane occupancy, Phasing/cycle lengths, Incidents, Current work zones, Scheduled work zones	Traffic volumes, Traffic speeds, Lane occupancy, Phasing/cycle lengths, Incidents, Current work zones, Scheduled work zones
Archived by your agency	Traffic volumes, Traffic speeds, Turning movements, Road conditions, Emergency vehicle signal preemption, Phasing/cycle lengths	Lane occupancy, Vehicle classification, Queues, Route designations (snow emergency, etc.), Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures, Highway operations coordination information	Traffic speeds, Lane occupancy, Phasing/cycle lengths, Incidents, Current work zones, Scheduled work zones	Traffic speeds, Lane occupancy, Phasing/cycle lengths, Incidents, Current work zones, Scheduled work zones
Transferred to another agency by your agency	NR	NR	Traffic volumes, Traffic speeds, Lane occupancy, Phasing/cycle lengths, Incidents, Current work zones, Scheduled work zones	Traffic volumes, Traffic speeds, Lane occupancy, Phasing/cycle lengths, Incidents, Current work zones, Scheduled work zones
Importance of making information available to the public				

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Costa Mesa City		Garden Grove City	
	1999	**2005**	**1999**	**2005**
Ranked High	Route designations (snow emergency, etc.), Incidents, Emergency/evacuation routes and procedures		Traffic speeds, Lane occupancy, Phasing/cycle lengths, Incidents	
Ranked Medium	Traffic volumes, Traffic speeds, Lane occupancy, Vehicle classification, Road conditions, Emergency vehicle signal preemption, Weather conditions, Current work zones, Highway operations coordination information		Traffic volumes, Current work zones, Scheduled work zones	
Ranked Low	Probe vehicles, Turning movements, Queues, Transit vehicle signal priority, Scheduled work zones, Intermodal (air, rail, water) connections, Phasing/cycle lengths		NR	
Groups that make requests for the data	MPOs, Consultants, Advanced Traveler Information Systems (ATIS) provi		State DOT personnel, MPOs, Consultants, Advanced Traveler Information Systems (ATIS) provi	
What is the data used for?	Traffic analysis, Construction impact determination, Planning, Roadway impact analysis, Dissemination to the public		Traffic analysis, Planning, Incident detection algorithm development, Dissemination to the public	
Methods used to disseminate arterial information to the public				
Technologies your agency uses to disseminate:	Kiosks	Dedicated cable TV, Telephone system, Internet Web sites, E-mail or other direct PC communication	Direct intertie with state and MPO	Direct intertie with state and MPO
Technologies your agency (through another agency or org.) uses to disseminate:	Dedicated cable TV, Telephone system, Internet Web sites, Kiosks	E-mail or other direct PC communication, Cell phone/voice, Cell phone/data	Direct intertie with state and MPO	Direct intertie with state and MPO

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Costa Mesa City		Garden Grove City	
	1999	**2005**	**1999**	**2005**
Internet web site reporting arterial conditions	Caltrans by 2005 OCTA by 2000 City of Santa Ana		NR	
Telephone system for reporting arterial information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	OCTA via the TravelTip Program by 2000		Orange County Transportation Authority State of California District 12, Traffic Management Center City of Santa Ana Traffic Center	
Arterial Incident Management Section				
Methods used to distribute incident location and severity information				
to the public				
Technologies your agency uses to disseminate:	NR	Dedicated cable TV, Internet Web sites, Kiosks	Dedicated cable TV	Interactive TV
Technologies your agency (through another agency or org.) uses to disseminate:	NR	Dedicated cable TV, Internet Web sites, Telephone system, Pagers or personal data assistants, Kiosks, E-mail or other direct PC communication, In-vehicle navigation systems	Dedicated cable TV	NR
Internet web site reporting incident information	NR		dont know	
Telephone system for reporting incident information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	OCTA by 2000		Cable Channel #3	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Glendale City	
	1999	**2005**
Agency Returned Survey?	Yes	
Arterial Management Section		
Data collected, archived, and/or transferred to another agency		
Collected by your agency	NR	Traffic volumes, Traffic speeds, Vehicle classification, Turning movements, Queues, Phasing/cycle lengths, Road conditions, Emergency vehicle signal preemption, Transit vehicle signal priority, Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures
Archived by your agency	NR	Traffic volumes, Traffic speeds, Turning movements, Phasing/cycle lengths, Road conditions, Emergency vehicle signal preemption, Transit vehicle signal priority, Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures
Transferred to another agency by your agency	NR	Traffic volumes, Traffic speeds, Turning movements, Road conditions, Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures
Importance of making information available to the public		

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Glendale City	
	1999	**2005**
Ranked High	Traffic volumes, Turning movements, Road conditions, Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures	
Ranked Medium	Traffic speeds, Queues	
Ranked Low	Lane occupancy, Vehicle classification, Probe vehicles, Phasing/cycle lengths, Emergency vehicle signal preemption, Transit vehicle signal priority	
Groups that make requests for the data	Consultants, Real Estate Agencies	
What is the data used for?	Traffic analysis, Planning	
Methods used to disseminate arterial information to the public		
Technologies your agency uses to disseminate:	NR	Dedicated cable TV, Internet Web sites, Kiosks
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Glendale City	
	1999	**2005**
Internet web site reporting arterial conditions	NR	
Telephone system for reporting arterial information to the public	NR	
Organizations your agency sends information for dissemination to the public	NR	
Arterial Incident Management Section		
Methods used to distribute incident location and severity information		
to the public		
Technologies your agency uses to disseminate:	NR	Dedicated cable TV, Internet Web sites, E-mail or other direct PC communication
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR
Internet web site reporting incident information	NR	
Telephone system for reporting incident information to the public	NR	
Organizations your agency sends information for dissemination to the public	NR	

Appendix I
Transit Management Components

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Access Services Incorporated		Antelope Valley Transit Authority		Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
Number of vehicles used in revenue service								
Fixed Route Bus	NR	NR	14	NR	NR	NR	9	9
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	326	500	NR	NR	18	NR	3	3
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Have of plan to have an Automated Vehicle Location System?	No		No		Yes		No	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	Yes	No	No	No
Sign/Odometer	No	No	No	No	No	No	No	No
Dead-Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Backup Technologies								
GPS	No	No	No	No	No	No	No	No
Sign/Odometer	No	No	No	No	No	No	No	No
Dead-Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Number of Vehicles Equipped with AVL								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	18	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Motor Buses Operated as Vehicle Probes								
Number of Motor Buses equipped as probes on freeways?	NR		NR		NR		NR	
Number of Motor Buses equipped as probes on arterials?	NR		NR		NR		NR	
Have Organized Regional Incident Management Program?	No		No		No		No	
Have Automated Traveler Information System?	No		No		No		No	

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Access Services Incorporated		Antelope Valley Transit Authority		Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Services Automated Traveler Info. System Applies:								
Fixed Route	No		No		No		No	
Heavy Rail	No		No		No		No	
Light Rail	No		No		No		No	
Demand Responsive	No		No		No		No	
Commuter Rail	No		No		No		No	
Ferry	No		No		No		No	
Locations where traveler information is displayed to public								
Number of bus stops on fixed transit routes	NR	NR	NR	NR	NR	NR	NR	NR
Bus stops on fixed transit routes that display traveler info to the public	NR	NR	NR	NR	NR	NR	NR	NR
Number of rail stations	NR	NR	NR	NR	NR	NR	NR	NR
Number of rail stations that display traveler information	NR	NR	NR	NR	NR	NR	NR	NR
Number of other locations that display traveler information to public	NR	NR	NR	NR	NR	NR	NR	NR
Number of vehicles the traveler information system has available								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Deployment of Communications Technology								
Attributes of Radio System:								
Digital?	Yes		No		Yes		No	
Analog?	No		Yes		No		Yes	
Trunked?	Yes		No		Yes		No	
Regular?	No		Yes		No		Yes	
Services that use a Digital or Trunked Radio System								
Digital Only								
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Trunked Only								
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Access Services Incorporated		Antelope Valley Transit Authority		Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Have of plan to have Automatic Passenger Counters (APCs)?	No		No		No		No	
Methods used to count passengers								
Treadle Mats	No		No		No		No	
Infrared Beams	No		No		No		No	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	No	No	No	No
Differential GPS	No	No	No	No	No	No	No	No
Signpost/Odometer	No	No	No	No	No	No	No	No
Dead_Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Backup Technologies								
GPS	No	No	No	No	No	No	No	No
Differential GPS	No	No	No	No	No	No	No	No
Signpost/Odometer	No	No	No	No	No	No	No	No
Dead_Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Number of Vehicles with APCs								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Remote Real-Time Monitoring and Computer Assisted Dispatching								
Remote Real-Time Monitoring								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Automated Dispatching or Control Software								

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Access Services Incorporated		Antelope Valley Transit Authority		Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	285	500	NR	NR	18	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Coordinate or plan to coordinate travel request and vehicle								
dispatching for multiple agencies?	No		No		No		No	
Is there or will there be a Transportation Management Center								
(TMC) in the region that controls transit and highway modes?	NR		No		Yes		NR	
Modes that TMC currently controls:								
Highways	No	No	No	No	No	Yes	No	No
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Priority at Traffic Signals and Ramp Meter Priority								
Priority at Traffic Signals								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Ramp Meter Priority								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Number of Vehicles Equipped with Navigation Aids								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
ITS Standards Used Related to Transit Management								
TCIP On Boad Objects (TCIP-OB)	No		No		No		No	

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Access Services Incorporated		Antelope Valley Transit Authority		Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
TCIP Traffic Management Objects (TCIP-TM)	No		No		No		No	
TCIP Common Public Transportation Objects (TCIP-CPT)	No		No		No		No	
TCIP Passenger Information Objects (TCIP-PI)	No		No		No		No	
TCIP Incident Management Objects (TCIP-IM)	No		No		No		No	
TCIP Fare Collection Objects (TCIP-FC)	No		No		No		No	
TCIP Spatial Representation Objects (TCIP-SP)	No		No		No		No	
TCIP Control Center Objects (TCIP-CC)	No		No		No		No	
TCIP Scheduling/Runcutting Objects (TCIP-SCH)	No		No		No		No	
Send data communication between micro computer and heavy duty vehicle applications (SAE J1708)	No		No		No		No	
Would agency be willing to participate in testing of ITS Standards?	Yes		No		Yes		Yes	
Have agreements in place with other agencies to use similar hardware and software to aid maintenance and interoperability?	No		No		No		No	
Electronic Fare Payment								
Have full operational Electronic Fare Payment System?	No		No		Yes		No	
Methods of Fare Payment								
Stored value card with fare deducted for each trip								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		Yes		No	
Debit Card	No		No		No		No	
Billed by the month for trips taken								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		No		No	
Credit Card	No		No		No		No	
Monthly Pass								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		No		No	
Vehicles/Stations Equipped with Automated Payment Mechanism								
Magnetic Stripe Readers								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Smart Card Readers								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Access Services Incorporated		Antelope Valley Transit Authority		Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	18	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Credit Card								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Debit Card								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
NR: No Response								

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Corona City Dial-A-Ride		La Mirada City Transit		Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
Number of vehicles used in revenue service								
Fixed Route Bus	0	8	NR	NR	10	12	203	260
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	11	6	13	13	NR	NR	26	35
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Have of plan to have an Automated Vehicle Location System?	No		No		No		Yes	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	No	No	No	Yes
Sign/Odometer	No	No	No	No	No	No	No	No
Dead-Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Backup Technologies								
GPS	No	No	No	No	No	No	No	No
Sign/Odometer	No	No	No	No	No	No	No	No
Dead-Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Number of Vehicles Equipped with AVL								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	260
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Motor Buses Operated as Vehicle Probes								
Number of Motor Buses equipped as probes on freeways?	NR		NR		NR		NR	
Number of Motor Buses equipped as probes on arterials?	NR		NR		NR		NR	
Have Organized Regional Incident Management Program?	Yes		No		Yes		No	
Have Automated Traveler Information System?	Yes		No		No		Yes	

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Corona City Dial-A-Ride		La Mirada City Transit		Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Services Automated Traveler Info. System Applies:								
Fixed Route	Yes		No		No		Yes	
Heavy Rail	No		No		No		No	
Light Rail	No		No		No		No	
Demand Responsive	Yes		No		No		No	
Commuter Rail	No		No		No		No	
Ferry	No		No		No		No	
Locations where traveler information is displayed to public								
Number of bus stops on fixed transit routes	NR	NR	NR	NR	NR	NR	2,100	2,400
Bus stops on fixed transit routes that display traveler info to the public	NR	NR	NR	NR	NR	NR	NR	NR
Number of rail stations	NR	NR	NR	NR	NR	NR	NR	NR
Number of rail stations that display traveler information	NR	NR	NR	NR	NR	NR	NR	NR
Number of other locations that display traveler information to public	NR	NR	NR	NR	NR	NR	1	NR
Number of vehicles the traveler information system has available								
Fixed Route Bus	0	8	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	0	6	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Deployment of Communications Technology								
Attributes of Radio System:								
Digital?	No		No		Yes		No	
Analog?	Yes		Yes		No		Yes	
Trunked?	No		No		No		No	
Regular?	Yes		Yes		Yes		Yes	
Services that use a Digital or Trunked Radio System								
Digital Only								
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Trunked Only								
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Corona City Dial-A-Ride		La Mirada City Transit		Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Have of plan to have Automatic Passenger Counters (APCs)?	No		No		No		No	
Methods used to count passengers								
Treadle Mats	No		No		No		No	
Infrared Beams	No		No		No		No	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	No	No	No	Yes
Differential GPS	No	No	No	No	No	No	No	No
Signpost/Odometer	No	No	No	No	No	No	No	No
Dead_Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Backup Technologies								
GPS	No	No	No	No	No	No	No	No
Differential GPS	No	No	No	No	No	No	No	No
Signpost/Odometer	No	No	No	No	No	No	No	No
Dead_Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Number of Vehicles with APCs								
Fixed Route Bus	NR	8	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	6	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Remote Real-Time Monitoring and Computer Assisted Dispatching								
Remote Real-Time Monitoring								
Fixed Route Bus	0	8	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	0	6	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Automated Dispatching or Control Software								

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Corona City Dial-A-Ride		La Mirada City Transit		Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Fixed Route Bus	0	8	NR	NR	NR	NR	203	260
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	0	6	NR	NR	NR	NR	26	35
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Coordinate or plan to coordinate travel request and vehicle								
dispatching for multiple agencies?	No		No		No		No	
Is there or will there be a Transportation Management Center								
(TMC) in the region that controls transit and highway modes?	NR		No		No		No	
Modes that TMC currently controls:								
Highways	No	No	No	No	No	No	No	No
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Priority at Traffic Signals and Ramp Meter Priority								
Priority at Traffic Signals								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Ramp Meter Priority								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Number of Vehicles Equipped with Navigation Aids								
Fixed Route Bus	0	8	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	0	6	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
ITS Standards Used Related to Transit Management								
TCIP On Boad Objects (TCIP-OB)	No		No		No		No	

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Corona City Dial-A-Ride		La Mirada City Transit		Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
TCIP Traffic Management Objects (TCIP-TM)	No		No		No		No	
TCIP Common Public Transportation Objects (TCIP-CPT)	No		No		No		No	
TCIP Passenger Information Objects (TCIP-PI)	No		No		No		No	
TCIP Incident Management Objects (TCIP-IM)	No		No		No		No	
TCIP Fare Collection Objects (TCIP-FC)	No		No		No		No	
TCIP Spatial Representation Objects (TCIP-SP)	No		No		No		No	
TCIP Control Center Objects (TCIP-CC)	No		No		No		No	
TCIP Scheduling/Runcutting Objects (TCIP-SCH)	No		No		No		No	
Send data communication between micro computer and heavy duty vehicle applications (SAE J1708)	No		No		No		No	
Would agency be willing to participate in testing of ITS Standards?	Yes		NR		Yes		No	
Have agreements in place with other agencies to use similar hardware and software to aid maintenance and interoperability?	No		No		No		No	
Electronic Fare Payment								
Have full operational Electronic Fare Payment System?	Yes		No		No		Yes	
Methods of Fare Payment								
Stored value card with fare deducted for each trip								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		No		No	
Debit Card	Yes		No		No		No	
Billed by the month for trips taken								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		No		No	
Credit Card	Yes		No		No		No	
Monthly Pass								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		No		No	
Vehicles/Stations Equipped with Automated Payment Mechanism								
Magnetic Stripe Readers								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	NR	260
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Smart Card Readers								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	NR	260
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Corona City Dial-A-Ride		La Mirada City Transit		Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Credit Card								
Fixed Route Bus Vehicles	NR	8	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	6	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Debit Card								
Fixed Route Bus Vehicles	NR	8	NR	NR	NR	NR	NR	260
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	6	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
NR: No Response								

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Los Angeles City		Montebello Bus Lines		Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
Number of vehicles used in revenue service								
Fixed Route Bus	256	285	60	65	22	27	442	650
Heavy or Rapid Rail	NR	NR	0	0	NR	NR	NR	NR
Light Rail	NR	NR	0	0	NR	NR	NR	NR
Demand Responsive	108	108	5	5	4	5	172	130
Commuter Rail	NR	NR	0	0	NR	NR	NR	NR
Ferry Boat	NR	NR	0	0	NR	NR	NR	NR
Have of plan to have an Automated Vehicle Location System?	Yes		No		No		Yes	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	No	No	No	No
Sign/Odometer	No	No	No	No	No	No	No	No
Dead-Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	Yes	No	No	No	No	No	Yes
Backup Technologies								
GPS	No	No	No	No	No	No	No	No
Sign/Odometer	No	No	No	No	No	No	No	No
Dead-Reckoning	No	No	No	No	No	No	No	Yes
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Number of Vehicles Equipped with AVL								
Fixed Route Bus	10	62	NR	NR	NR	NR	0	650
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	0	130
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Motor Buses Operated as Vehicle Probes								
Number of Motor Buses equipped as probes on freeways?	NR		NR		NR		15	
Number of Motor Buses equipped as probes on arterials?	NR		NR		NR		15	
Have Organized Regional Incident Management Program?	No		No		No		Yes	
Have Automated Traveler Information System?	Yes		No		Yes		Yes	

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Los Angeles City		Montebello Bus Lines		Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Services Automated Traveler Info. System Applies:								
Fixed Route	Yes		No		Yes		Yes	
Heavy Rail	No		No		No		No	
Light Rail	No		No		Yes		No	
Demand Responsive	Yes		No		No		No	
Commuter Rail	No		No		Yes		No	
Ferry	No		No		No		No	
Locations where traveler information is displayed to public								
Number of bus stops on fixed transit routes	NR	NR	679	713	NR	NR	0	50
Bus stops on fixed transit routes that display traveler info to the public	NR	NR	0	0	0	0	NR	NR
Number of rail stations	NR	NR	0	0	2	2	NR	NR
Number of rail stations that display traveler information	NR	NR	0	0	NR	NR	NR	NR
Number of other locations that display traveler information to public	NR	NR	0	0	NR	NR	NR	NR
Number of vehicles the traveler information system has available								
Fixed Route Bus	NR	NR	50	50	19	25	NR	NR
Heavy or Rapid Rail	NR	NR	0	0	NR	NR	NR	NR
Light Rail	NR	NR	0	0	NR	NR	NR	NR
Demand Responsive	NR	NR	0	5	4	4	NR	NR
Commuter Rail	NR	NR	0	0	NR	NR	NR	NR
Ferry Boat	NR	NR	0	0	NR	NR	NR	NR
Deployment of Communications Technology								
Attributes of Radio System:								
Digital?	No		No		No		No	
Analog?	Yes		Yes		No		Yes	
Trunked?	Yes		No		No		Yes	
Regular?	No		Yes		No		No	
Services that use a Digital or Trunked Radio System								
Digital Only								
Fixed Route Bus	No	No	No	Yes	No	No	Yes	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	Yes	No	No	No	Yes
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Trunked Only								
Fixed Route Bus	No	Yes	No	No	No	No	Yes	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Los Angeles City		Montebello Bus Lines		Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Demand Responsive	No	No	No	No	No	No	No	Yes
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Have of plan to have Automatic Passenger Counters (APCs)?	No		No		No		Yes	
Methods used to count passengers								
Treadle Mats	No		No		No		No	
Infrared Beams	No		No		No		Yes	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	No	No	No	No
Differential GPS	No	No	No	No	No	No	No	Yes
Signpost/Odometer	No	No	No	No	No	No	No	No
Dead_Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Backup Technologies								
GPS	No	No	No	No	No	No	No	No
Differential GPS	No	No	No	No	No	No	No	No
Signpost/Odometer	No	No	No	No	No	No	No	No
Dead_Reckoning	No	No	No	No	No	No	No	Yes
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Number of Vehicles with APCs								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	0	60
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	0	0
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Remote Real-Time Monitoring and Computer Assisted Dispatching								
Remote Real-Time Monitoring								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Automated Dispatching or Control Software								

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Los Angeles City		Montebello Bus Lines		Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Fixed Route Bus	NR	NR	0	65	NR	25	442	650
Heavy or Rapid Rail	NR	NR	0	0	NR	NR	NR	NR
Light Rail	NR	NR	0	0	NR	NR	NR	NR
Demand Responsive	95	101	0	5	NR	4	0	130
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Coordinate or plan to coordinate travel request and vehicle								
dispatching for multiple agencies?	No		NR		No		No	
Is there or will there be a Transportation Management Center								
(TMC) in the region that controls transit and highway modes?	No		NR		Yes		Yes	
Modes that TMC currently controls:								
Highways	No	No	No	No	No	Yes	Yes	No
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Priority at Traffic Signals and Ramp Meter Priority								
Priority at Traffic Signals								
Fixed Route Bus	NR	62	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Ramp Meter Priority								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Number of Vehicles Equipped with Navigation Aids								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
ITS Standards Used Related to Transit Management								
TCIP On Boad Objects (TCIP-OB)	No		No		No		No	

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Los Angeles City		Montebello Bus Lines		Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
TCIP Traffic Management Objects (TCIP-TM)	No		No		No		No	
TCIP Common Public Transportation Objects (TCIP-CPT)	No		No		No		No	
TCIP Passenger Information Objects (TCIP-PI)	No		No		No		No	
TCIP Incident Management Objects (TCIP-IM)	No		No		No		No	
TCIP Fare Collection Objects (TCIP-FC)	No		No		No		No	
TCIP Spatial Representation Objects (TCIP-SP)	No		No		No		No	
TCIP Control Center Objects (TCIP-CC)	No		No		No		No	
TCIP Scheduling/Runcutting Objects (TCIP-SCH)	No		No		No		No	
Send data communication between micro computer and heavy duty vehicle applications (SAE J1708)	No		No		No		Yes	
Would agency be willing to participate in testing of ITS Standards?	No		Yes		NR		Yes	
Have agreements in place with other agencies to use similar hardware and software to aid maintenance and interoperability?	No		No		No		No	
Electronic Fare Payment								
Have full operational Electronic Fare Payment System?	No		Yes		Yes		Yes	
Methods of Fare Payment								
Stored value card with fare deducted for each trip								
Magnetic Stripe	No		Yes		No		No	
Smart Card	No		Yes		Yes		No	
Debit Card	No		No		No		No	
Billed by the month for trips taken								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		No		No	
Credit Card	No		No		No		No	
Monthly Pass								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		No		No	
Vehicles/Stations Equipped with Automated Payment Mechanism								
Magnetic Stripe Readers								
Fixed Route Bus Vehicles	NR	NR	54	65	NR	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	5	5	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Smart Card Readers								
Fixed Route Bus Vehicles	NR	NR	54	65	26	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Los Angeles City		Montebello Bus Lines		Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	5	5	4	5	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Credit Card								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Debit Card								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
NR: No Response								

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Simi Valley Transit		South Coast Area Transit		Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
Number of vehicles used in revenue service								
Fixed Route Bus	9	9	43	43	NR	NR	46	48
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	0	0
Light Rail	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive	4	6	5	15	NR	NR	6	6
Commuter Rail	NR	NR	NR	NR	152	182	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Have of plan to have an Automated Vehicle Location System?	No		No		No		Yes	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	No	Yes	No	Yes
Sign/Odometer	No	No	No	No	No	No	No	No
Dead-Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Backup Technologies								
GPS	No	No	No	No	No	Yes	No	No
Sign/Odometer	No	No	No	No	No	No	No	No
Dead-Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Number of Vehicles Equipped with AVL								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	0	48
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	0	6
Commuter Rail	NR	NR	NR	NR	0	35	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Motor Buses Operated as Vehicle Probes								
Number of Motor Buses equipped as probes on freeways?	NR		NR		NR		NR	
Number of Motor Buses equipped as probes on arterials?	NR		NR		NR		NR	
Have Organized Regional Incident Management Program?	No		Yes		Yes		No	
Have Automated Traveler Information System?	Yes		No		Yes		Yes	

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Simi Valley Transit		South Coast Area Transit		Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Services Automated Traveler Info. System Applies:								
Fixed Route	Yes		No		No		Yes	
Heavy Rail	No		No		No		No	
Light Rail	No		No		No		No	
Demand Responsive	No		No		No		No	
Commuter Rail	No		No		Yes		No	
Ferry	No		No		No		No	
Locations where traveler information is displayed to public								
Number of bus stops on fixed transit routes	NR	NR	NR	NR	NR	NR	470	470
Bus stops on fixed transit routes that display traveler info to the public	NR	NR	NR	NR	NR	NR	30	50
Number of rail stations	NR	NR	NR	NR	NR	NR	NR	NR
Number of rail stations that display traveler information	NR	NR	NR	NR	NR	NR	NR	NR
Number of other locations that display traveler information to public	NR	NR	NR	NR	NR	NR	10	10
Number of vehicles the traveler information system has available								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	0	0
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Deployment of Communications Technology								
Attributes of Radio System:								
Digital?	No		No		No		Yes	
Analog?	Yes		Yes		Yes		No	
Trunked?	No		No		No		No	
Regular?	Yes		Yes		Yes		Yes	
Services that use a Digital or Trunked Radio System								
Digital Only								
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Trunked Only								
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Simi Valley Transit		South Coast Area Transit		Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Have of plan to have Automatic Passenger Counters (APCs)?	Yes		Yes		No		Yes	
Methods used to count passengers								
Treadle Mats	No		No		No		No	
Infrared Beams	Yes		Yes		No		Yes	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	Yes	Yes	No	No	No	No	Yes
Differential GPS	No	No	No	No	No	No	No	No
Signpost/Odometer	No	No	No	No	No	No	No	No
Dead_Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Backup Technologies								
GPS	No	No	No	No	No	No	No	No
Differential GPS	No	No	No	No	No	No	No	No
Signpost/Odometer	No	No	No	No	No	No	No	No
Dead_Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Number of Vehicles with APCs								
Fixed Route Bus	NR	9	43	43	NR	NR	46	48
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Remote Real-Time Monitoring and Computer Assisted Dispatching								
Remote Real-Time Monitoring								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	0	35	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Automated Dispatching or Control Software								

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Simi Valley Transit		South Coast Area Transit		Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	48
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	4	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Coordinate or plan to coordinate travel request and vehicle								
dispatching for multiple agencies?	No		No		No		No	
Is there or will there be a Transportation Management Center								
(TMC) in the region that controls transit and highway modes?	No		No		NR		No	
Modes that TMC currently controls:								
Highways	No	No	No	No	No	No	No	No
Fixed Route Bus	No	Yes	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Priority at Traffic Signals and Ramp Meter Priority								
Priority at Traffic Signals								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Ramp Meter Priority								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Number of Vehicles Equipped with Navigation Aids								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
ITS Standards Used Related to Transit Management								
TCIP On Boad Objects (TCIP-OB)	No		No		No		No	

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Simi Valley Transit		South Coast Area Transit		Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
TCIP Traffic Management Objects (TCIP-TM)	No		No		No		No	
TCIP Common Public Transportation Objects (TCIP-CPT)	No		No		No		No	
TCIP Passenger Information Objects (TCIP-PI)	No		No		No		No	
TCIP Incident Management Objects (TCIP-IM)	No		No		No		No	
TCIP Fare Collection Objects (TCIP-FC)	No		No		No		No	
TCIP Spatial Representation Objects (TCIP-SP)	No		No		No		No	
TCIP Control Center Objects (TCIP-CC)	No		No		No		No	
TCIP Scheduling/Runcutting Objects (TCIP-SCH)	No		No		No		No	
Send data communication between micro computer and heavy duty vehicle applications (SAE J1708)	No		No		No		No	
Would agency be willing to participate in testing of ITS Standards?	No		No		NR		No	
Have agreements in place with other agencies to use similar hardware and software to aid maintenance and interoperability?	No		No		NR		No	
Electronic Fare Payment								
Have full operational Electronic Fare Payment System?	Yes		Yes		No		Yes	
Methods of Fare Payment								
Stored value card with fare deducted for each trip								
Magnetic Stripe	No		No		No		No	
Smart Card	Yes		Yes		No		Yes	
Debit Card	No		Yes		No		No	
Billed by the month for trips taken								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		No		No	
Credit Card	No		No		No		No	
Monthly Pass								
Magnetic Stripe	No		No		No		No	
Smart Card	Yes		Yes		No		No	
Vehicles/Stations Equipped with Automated Payment Mechanism								
Magnetic Stripe Readers								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Smart Card Readers								
Fixed Route Bus Vehicles	NR	9	43	43	NR	NR	46	48
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Simi Valley Transit		South Coast Area Transit		Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Credit Card								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Debit Card								
Fixed Route Bus Vehicles	NR	NR	43	43	NR	NR	NR	48
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
NR: No Response								

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Victor Valley Transit Authority		Totals	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		17	
Number of vehicles used in revenue service				
Fixed Route Bus	20	27	1,134	1,443
Heavy or Rapid Rail	NR	NR	0	0
Light Rail	NR	NR	0	0
Demand Responsive	26	26	727	858
Commuter Rail	NR	NR	152	182
Ferry Boat	NR	NR	0	0
Have of plan to have an Automated Vehicle Location System?	No		5	
Primary and Secondary Location Technologies Used				
Primary Technologies				
GPS	No	No	1	3
Sign/Odometer	No	No	0	0
Dead-Reckoning	No	Yes	0	1
LORAN C	No	No	0	0
Other	No	No	0	2
Backup Technologies				
GPS	No	No	0	1
Sign/Odometer	No	No	0	0
Dead-Reckoning	No	No	0	1
LORAN C	No	No	0	0
Other	No	Yes	0	1
Number of Vehicles Equipped with AVL				
Fixed Route Bus	NR	NR	10	1,020
Heavy or Rapid Rail	NR	NR	0	0
Light Rail	NR	NR	0	0
Demand Responsive	NR	NR	18	136
Commuter Rail	NR	NR	0	35
Ferry Boat	NR	NR	0	0
Motor Buses Operated as Vehicle Probes				
Number of Motor Buses equipped as probes on freeways?	NR		0	
Number of Motor Buses equipped as probes on arterials?	NR		0	
Have Organized Regional Incident Management Program?	No		5	
Have Automated Traveler Information System?	No		8	

	Victor Valley Transit Authority		Totals	
	1999	**2005**	**1999**	**2005**
Services Automated Traveler Info. System Applies:				
Fixed Route	No		7	
Heavy Rail	No		0	
Light Rail	No		1	
Demand Responsive	No		2	
Commuter Rail	No		2	
Ferry	No		0	
Locations where traveler information is displayed to public				
Number of bus stops on fixed transit routes	NR	NR	3,249	3,633
Bus stops on fixed transit routes that display traveler info to the public	NR	NR	30	50
Number of rail stations	NR	NR	2	2
Number of rail stations that display traveler information	NR	NR	0	0
Number of other locations that display traveler information to public	NR	NR	11	10
Number of vehicles the traveler information system has available				
Fixed Route Bus	NR	NR	69	83
Heavy or Rapid Rail	NR	NR	0	0
Light Rail	NR	NR	0	0
Demand Responsive	NR	NR	4	15
Commuter Rail	NR	NR	0	0
Ferry Boat	NR	NR	0	0
Deployment of Communications Technology				
Attributes of Radio System:				
Digital?	No		4	
Analog?	Yes		12	
Trunked?	No		4	
Regular?	Yes		12	
Services that use a Digital or Trunked Radio System				
Digital Only				
Fixed Route Bus	No	No	1	1
Heavy or Rapid Rail	No	No	0	0
Light Rail	No	No	0	0
Demand Responsive	No	No	0	2
Commuter Rail	No	No	0	0
Ferry Boat	No	No	0	0
Trunked Only				
Fixed Route Bus	No	No	1	1
Heavy or Rapid Rail	No	No	0	0
Light Rail	No	No	0	0

	Victor Valley Transit Authority		Totals	
	1999	**2005**	**1999**	**2005**
Demand Responsive	No	No	0	1
Commuter Rail	No	No	0	0
Ferry Boat	No	No	0	0
Have of plan to have Automatic Passenger Counters (APCs)?	No		4	
Methods used to count passengers				
Treadle Mats	No		0	
Infrared Beams	No		4	
Primary and Secondary Location Technologies Used				
Primary Technologies				
GPS	No	No	1	3
Differential GPS	No	No	0	1
Signpost/Odometer	No	No	0	0
Dead_Reckoning	No	No	0	0
LORAN C	No	No	0	0
Other	No	No	0	0
Backup Technologies				
GPS	No	No	0	0
Differential GPS	No	No	0	0
Signpost/Odometer	No	No	0	0
Dead_Reckoning	No	No	0	1
LORAN C	No	No	0	0
Other	No	No	0	0
Number of Vehicles with APCs				
Fixed Route Bus	NR	NR	89	168
Heavy or Rapid Rail	NR	NR	0	0
Light Rail	NR	NR	0	0
Demand Responsive	NR	NR	0	6
Commuter Rail	NR	NR	0	0
Ferry Boat	NR	NR	0	0
Remote Real-Time Monitoring and Computer Assisted Dispatching				
Remote Real-Time Monitoring				
Fixed Route Bus	NR	NR	0	8
Heavy or Rapid Rail	NR	NR	0	0
Light Rail	NR	NR	0	0
Demand Responsive	NR	NR	0	6
Commuter Rail	NR	NR	0	35
Ferry Boat	NR	NR	0	0
Automated Dispatching or Control Software				

	Victor Valley Transit Authority		Totals	
	1999	**2005**	**1999**	**2005**
Fixed Route Bus	NR	NR	645	1,056
Heavy or Rapid Rail	NR	NR	0	0
Light Rail	NR	NR	0	0
Demand Responsive	26	26	454	807
Commuter Rail	NR	NR	0	0
Ferry Boat	NR	NR	0	0
Coordinate or plan to coordinate travel request and vehicle				
dispatching for multiple agencies?	No		0	
Is there or will there be a Transportation Management Center				
(TMC) in the region that controls transit and highway modes?	NR		3	
Modes that TMC currently controls:				
Highways	No	No	1	2
Fixed Route Bus	No	No	0	1
Heavy or Rapid Rail	No	No	0	0
Light Rail	No	No	0	0
Demand Responsive	No	No	0	0
Commuter Rail	No	No	0	0
Ferry Boat	No	No	0	0
Other	No	No	0	0
Priority at Traffic Signals and Ramp Meter Priority				
Priority at Traffic Signals				
Fixed Route Bus	NR	NR	0	62
Light Rail	NR	NR	0	0
Demand Responsive	NR	NR	0	0
Ramp Meter Priority				
Fixed Route Bus	NR	NR	0	0
Demand Responsive	NR	NR	0	0
Number of Vehicles Equipped with Navigation Aids				
Fixed Route Bus	NR	NR	0	8
Heavy or Rapid Rail	NR	NR	0	0
Light Rail	NR	NR	0	0
Demand Responsive	NR	NR	0	6
Commuter Rail	NR	NR	0	0
Ferry Boat	NR	NR	0	0
ITS Standards Used Related to Transit Management				
TCIP On Boad Objects (TCIP-OB)	No		0	

	Victor Valley Transit Authority		Totals	
	1999	**2005**	**1999**	**2005**
TCIP Traffic Management Objects (TCIP-TM)	No		0	
TCIP Common Public Transportation Objects (TCIP-CPT)	No		0	
TCIP Passenger Information Objects (TCIP-PI)	No		0	
TCIP Incident Management Objects (TCIP-IM)	No		0	
TCIP Fare Collection Objects (TCIP-FC)	No		0	
TCIP Spatial Representation Objects (TCIP-SP)	No		0	
TCIP Control Center Objects (TCIP-CC)	No		0	
TCIP Scheduling/Runcutting Objects (TCIP-SCH)	No		0	
Send data communication between micro computer and heavy duty vehicle applications (SAE J1708)	No		1	
Would agency be willing to participate in testing of ITS Standards?	Yes		8	
Have agreements in place with other agencies to use similar hardware and software to aid maintenance and interoperability?	No		0	
Electronic Fare Payment				
Have full operational Electronic Fare Payment System?	Yes		10	
Methods of Fare Payment				
Stored value card with fare deducted for each trip				
Magnetic Stripe	No		1	
Smart Card	No		6	
Debit Card	No		2	
Billed by the month for trips taken				
Magnetic Stripe	No		0	
Smart Card	No		0	
Credit Card	No		1	
Monthly Pass				
Magnetic Stripe	Yes		1	
Smart Card	Yes		3	
Vehicles/Stations Equipped with Automated Payment Mechanism				
Magnetic Stripe Readers				
Fixed Route Bus Vehicles	NR	27	54	352
Heavy or Rapid Rail Stations	NR	NR	0	0
Light Rail Stations	NR	NR	0	0
Demand Responsive Vehicles	NR	NR	5	5
Commuter Rail Stations	NR	NR	0	0
Ferry Boat Landings	NR	NR	0	0
Smart Card Readers				
Fixed Route Bus Vehicles	NR	27	169	452
Heavy or Rapid Rail Stations	NR	NR	0	0

Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

	Victor Valley Transit Authority		Totals	
	1999	**2005**	**1999**	**2005**
Light Rail Stations	NR	NR	0	0
Demand Responsive Vehicles	NR	NR	9	28
Commuter Rail Stations	NR	NR	0	0
Ferry Boat Landings	NR	NR	0	0
Credit Card				
Fixed Route Bus Vehicles	NR	NR	0	8
Heavy or Rapid Rail Stations	NR	NR	0	0
Light Rail Stations	NR	NR	0	0
Demand Responsive Vehicles	NR	NR	0	6
Commuter Rail Stations	NR	NR	0	0
Ferry Boat Landings	NR	NR	0	0
Debit Card				
Fixed Route Bus Vehicles	NR	NR	43	359
Heavy or Rapid Rail Stations	NR	NR	0	0
Light Rail Stations	NR	NR	0	0
Demand Responsive Vehicles	NR	NR	0	6
Commuter Rail Stations	NR	NR	0	0
Ferry Boat Landings	NR	NR	0	0
NR: No Response				

Appendix J
Transit Management Integration

Agency Name	Access Services Incorporated		Antelope Valley Transit Authority	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Transit operators in the region that use the same electronic payment system	None listed		None listed	
Toll operators from whom you accept electronic payment of transit fare through the use of ETC media	None listed		None listed	
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives freeway travel times, speeds, and conditions				
Receive Information	None listed	Caltrans District 7	Caltrans District 7	None listed
Share Infrastructure	None listed	None listed	None listed	Caltrans District 7
Arterial Management agencies from which your agency receives arterial travel times, speeds, and conditions				
Receive Information	None listed	Anaheim City, Caltrans District 7, Costa Mesa City, Costa Mesa City, Glendale City, Huntington Beach City, Inglewood City, Long Beach City, Los Angeles City, Los Angeles County, Pasadena City, Pomona City, Santa Ana City	Caltrans District 7, Los Angeles City, Los Angeles County	None listed
Share Infrastructure	None listed	None listed	None listed	Caltrans District 7, Los Angeles City, Los Angeles County
Incident Management agencies from which your agency receives incident severity, location, and type				
Receive Information	None listed	Caltrans District 7	FTA, MTA	None listed
Share Infrastructure	None listed	None listed	None listed	FTA, MTA

Agency Name	Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Transit operators in the region that use the same electronic payment system	Los Angeles County Metropolitan Transp. Authority/MTA, Santa Monica Municipal Bus Lines, Foothill Transit, Santa Clarita, Gardena City, Norwalk Transit System, Culver City Municipal Bus Lines, Commerce City Municipal Buslines, Antelope Valley Transit Authority		None listed	
Toll operators from whom you accept electronic payment of transit				
fare through the use of ETC media	None listed		None listed	
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions				
Receive Information	None listed	Caltrans District 7	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions				
Receive Information	None listed	Los Angeles County	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives				
incident severity, location, and type				
Receive Information	None listed	Caltrans District 7	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed

Agency Name	Corona City Dial-A-Ride		La Mirada City Transit	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Transit operators in the region that use the same electronic payment system	None listed		None listed	
Toll operators from whom you accept electronic payment of transit fare through the use of ETC media	None listed		None listed	
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives freeway travel times, speeds, and conditions				
Receive Information	Caltrans District 8	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives arterial travel times, speeds, and conditions				
Receive Information	Caltrans District 8	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives incident severity, location, and type				
Receive Information	Caltrans District 8	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed

Agency Name	Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Transit operators in the region that use the same electronic payment system	None listed		Montebello Municipal Bus Lines, Culver City Municipal Bus Lines, Santa Monica Municipal Bus Lines, Foothill Transit, MTA	
Toll operators from whom you accept electronic payment of transit				
fare through the use of ETC media	None listed		None listed	
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions				
Receive Information	Caltrans District 12	Caltrans District 12	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives				
incident severity, location, and type				
Receive Information	Caltrans District 12	Caltrans District 12	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed

Agency Name	Los Angeles City		Montebello Bus Lines	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Transit operators in the region that use the same electronic payment system	None listed		Culver City Municipal Bus Lines, Norwalk Transit System, Santa Monica Municipal Bus Lines, Foothill Transit	
Toll operators from whom you accept electronic payment of transit fare through the use of ETC media	None listed		None listed	
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives freeway travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	Gateway Cities
Share Infrastructure	None listed	None listed	None listed	Gateway Cities
Arterial Management agencies from which your agency receives arterial travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	Gateway Cities
Share Infrastructure	None listed	None listed	None listed	Gateway Cities
Incident Management agencies from which your agency receives incident severity, location, and type				
Receive Information	None listed	None listed	None listed	Gateway Cities
Share Infrastructure	None listed	None listed	None listed	Gateway Cities

Agency Name	Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Transit operators in the region that use the same electronic payment system	Santa Monica Municipal Bus Lines, Foothills Transit		None listed	
Toll operators from whom you accept electronic payment of transit fare through the use of ETC media	None listed		None listed	
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives freeway travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	Caltrans District 12
Share Infrastructure	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives arterial travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	Anaheim City, Caltrans District 12, Garden Grove City, Huntington Beach City, Santa Ana City
Share Infrastructure	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives incident severity, location, and type				
Receive Information	None listed	None listed	None listed	Caltrans District 12
Share Infrastructure	None listed	None listed	None listed	None listed

Agency Name	Simi Valley Transit		South Coast Area Transit	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Transit operators in the region that use the same electronic payment system	South Coast Area Transit, Ventura Intercity		None listed	
Toll operators from whom you accept electronic payment of transit fare through the use of ETC media	None listed		None listed	
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives freeway travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives arterial travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives incident severity, location, and type				
Receive Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed

Agency Name	Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Transit operators in the region that use the same electronic payment system	None listed		South Coast Area Transit	
Toll operators from whom you accept electronic payment of transit fare through the use of ETC media	None listed		None listed	
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives freeway travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives arterial travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives incident severity, location, and type				
Receive Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed

Agency Name	Victor Valley Transit Authority	
	1999	**2005**
Agency Returned Survey?	Yes	
Transit operators in the region that use the same electronic payment system	None listed	
Toll operators from whom you accept electronic payment of transit fare through the use of ETC media	None listed	
Receiving real-time information via electronic means from others		
Freeway Management agencies from which your agency receives freeway travel times, speeds, and conditions		
Receive Information	None listed	None listed
Share Infrastructure	None listed	None listed
Arterial Management agencies from which your agency receives arterial travel times, speeds, and conditions		
Receive Information	None listed	None listed
Share Infrastructure	None listed	None listed
Incident Management agencies from which your agency receives incident severity, location, and type		
Receive Information	None listed	None listed
Share Infrastructure	None listed	None listed

Appendix K
Transit Management Information Collection and Dissemination

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Access Services Incorporated		Antelope Valley Transit Authority	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Methods used to disseminate transit information to the public				
Technologies your agency uses to disseminate:				
Transit routes, schedules and fares	NR	NR	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Technologies employed by other organization receiving your data				
Transit routes, schedules and fares	NR	NR	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Internet web site reporting transit routes, schedules and fare, etc.	NR		NR	
Telephone system for reporting transit information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	
Data collected, archived, and/or transferred to another agency				

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Access Services Incorporated		Antelope Valley Transit Authority	
	1999	**2005**	**1999**	**2005**
Collected by your agency	Passenger count, Passenger information (e.g., surveys, O/D), Emergency/evacuation routes and procedures	Weather conditions, Trip itinerary planning records, Vehicle monitoring status, Road conditions, Emergency vehicle signal preemption, Vehicle time and location, Route designations (snow emergency, etc), Transit operations coordination information, Incidents, Current roadway work zones for transit, Scheduled roadway work zones for transit, Intermodal (air, rail, water) conditions, Highway operations coordination information, Transit vehicle signal priority	Passenger count, Passenger information (e.g., surveys, O/D), Transit operations coordination information, Incidents	Weather conditions, Trip itinerary planning records, Vehicle monitoring status, Road conditions, Transit vehicle signal priority, Vehicle time and location, Route designations (snow emergency, etc), Current roadway work zones for transit, Scheduled roadway work zones for transit, Intermodal (air, rail, water) conditions, Emergency/evacuation routes and procedures, Highway operations coordination information, Emergency vehicle signal preemption

Agency Name	Access Services Incorporated		Antelope Valley Transit Authority	
	1999	**2005**	**1999**	**2005**
Archived by your agency	NR	NR	Passenger count, Passenger information (e.g., surveys, O/D), Transit operations coordination information, Incidents	Weather conditions, Trip itinerary planning records, Vehicle monitoring status, Road conditions, Transit vehicle signal priority, Vehicle time and location, Route designations (snow emergency, etc), Current roadway work zones for transit, Scheduled roadway work zones for transit, Intermodal (air, rail, water) conditions, Emergency/evacuation routes and procedures, Highway operations coordination information, Emergency vehicle signal preemption

Agency Name	Access Services Incorporated		Antelope Valley Transit Authority	
	1999	**2005**	**1999**	**2005**
Transferred to another agency by your agency	NR	NR	Passenger count, Passenger information (e.g., surveys, O/D), Transit operations coordination information, Incidents	Weather conditions, Trip itinerary planning records, Vehicle monitoring status, Road conditions, Transit vehicle signal priority, Vehicle time and location, Route designations (snow emergency, etc), Current roadway work zones for transit, Scheduled roadway work zones for transit, Intermodal (air, rail, water) conditions, Emergency/evacuation routes and procedures, Highway operations coordination information, Emergency vehicle signal preemption
Importance of making information available to the public				
Ranked High	Vehicle monitoring status, Vehicle time and location, Transit operations coordination information, Emergency/evacuation routes and procedures		Weather conditions, Passenger information (e.g., surveys, O/D), Vehicle monitoring status, Road conditions, Vehicle time and location, Route designations (snow emergency, etc), Transit operations coordination information, Incidents, Current roadway work zones for transit, Scheduled roadway work zones for transit, Intermodal (air, rail, water) conditions, Emergency/evacuation routes and procedures, Highway operations coordination information	
Ranked Medium	Weather conditions, Passenger count, Trip itinerary planning records, Passenger information (e.g., surveys, O/D), Road conditions, Emergency vehicle signal preemption, Route designations (snow emergency, etc), Incidents, Intermodal (air, rail, water) conditions, Transit vehicle signal priority		Passenger count, Trip itinerary planning records, Transit vehicle signal priority, Emergency vehicle signal preemption	

Agency Name	Access Services Incorporated		Antelope Valley Transit Authority	
	1999	**2005**	**1999**	**2005**
Ranked Low	Current roadway work zones for transit, Scheduled roadway work zones for transit, Highway operations coordination information		NR	
Groups that make requests for the data	Federal DOT personnel, State DOT personnel		Advanced Traveler Information Systems (ATIS) providers, Consultants, MPOs, Media (I.e., TV stations, radio stations), Federal DOT personnel, State DOT personnel, Universities	
What is the data used for?	Planning		Dissemination to the public, Roadway impact analysis, Planning, Construction impact determination, Traffic analysis	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Methods used to disseminate transit information to the public				
Technologies your agency uses to disseminate:				
Transit routes, schedules and fares	NR	NR	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Technologies employed by other organization receiving your data				
Transit routes, schedules and fares	NR	NR	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Internet web site reporting transit routes, schedules and fare, etc.	NR		NR	
Telephone system for reporting transit information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	
Data collected, archived, and/or transferred to another agency				

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**
Collected by your agency				
	Passenger information (e.g., surveys, O/D), Passenger count, Vehicle time and location	Transit operations coordination information, Scheduled roadway work zones for transit, Incidents, Road conditions, Vehicle monitoring status, Trip itinerary planning records	Passenger information (e.g., surveys, O/D), Passenger count	NR

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**
Archived by your agency	NR	NR	NR	NR

Agency Name	Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**
Transferred to another agency by your agency	NR	NR	NR	NR
Importance of making information available to the public				
Ranked High	Passenger information (e.g., surveys, O/D)		NR	
Ranked Medium	Transit operations coordination information, Scheduled roadway work zones for transit, Incidents, Road conditions, Vehicle monitoring status, Trip itinerary planning records, Passenger count		NR	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Arcadia Transit		Commerce City Municipal Buslines	
	1999	**2005**	**1999**	**2005**
Ranked Low				
	Vehicle time and location		NR	
Groups that make requests for the data				
	MPOs, Federal DOT personnel, State DOT personnel, Universities		Consultants, Federal DOT personnel, State DOT personnel	
What is the data used for?				
	Dissemination to the public, Planning		Dissemination to the public, Roadway impact analysis, Planning, Construction impact determination, Traffic analysis	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Corona City Dial-A-Ride		La Mirada City Transit	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Methods used to disseminate transit information to the public				
Technologies your agency uses to disseminate:				
Transit routes, schedules and fares	Facsimile, E-mail or other direct PC communication, Internet Web Sites, Telephone System	Audible Enunciators, Cell phone/data, In-vehicle navigation systems, Kiosks, Dedicated cable TV	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Technologies employed by other organization receiving your data				
Transit routes, schedules and fares	NR	NR	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Internet web site reporting transit routes, schedules and fare, etc.	www.scag.ca.gov/transit www.metrolinktrains.com www.rrta.com		NR	
Telephone system for reporting transit information to the public	909-734-7220- Dial-A-Ride City of Corona 909-684-0850- Regional Riverside Transit Agency		NR	
Organizations your agency sends information for dissemination to the public	all of those mentioned in above		NR	
Data collected, archived, and/or transferred to another agency				

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Corona City Dial-A-Ride		La Mirada City Transit	
	1999	**2005**	**1999**	**2005**
Collected by your agency				
		Transit operations coordination information, Current roadway work zones for transit, Transit vehicle signal priority, Passenger count, Vehicle time and location	Incidents, Trip itinerary planning records, Passenger count, Vehicle time and location	
	NR			NR

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Corona City Dial-A-Ride		La Mirada City Transit	
	1999	**2005**	**1999**	**2005**
Archived by your agency	NR	NR	NR	NR

Agency Name	Corona City Dial-A-Ride		La Mirada City Transit	
	1999	**2005**	**1999**	**2005**
Transferred to another agency by your agency	NR	NR	NR	NR
Importance of making information available to the public				
Ranked High	NR		NR	
Ranked Medium	Transit operations coordination information, Current roadway work zones for transit, Transit vehicle signal priority, Passenger count, Vehicle time and location		Passenger count, Vehicle time and location	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Corona City Dial-A-Ride		La Mirada City Transit	
	1999	**2005**	**1999**	**2005**
Ranked Low	NR		Incidents, Trip itinerary planning records	
Groups that make requests for the data	Consultants, MPOs, Federal DOT personnel, State DOT personnel		NR	
What is the data used for?	Dissemination to the public, Incident detection algorithm development, Traffic analysis		NR	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Methods used to disseminate transit information to the public				
Technologies your agency uses to disseminate:				
Transit routes, schedules and fares	NR	NR	Kiosks, Telephone System	Internet Web Sites
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	Kiosks, Internet Web Sites, Telephone System
Technologies employed by other organization receiving your data				
Transit routes, schedules and fares	NR	NR	Telephone System	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Internet web site reporting transit routes, schedules and fare, etc.	NR		website is still being developed	
Telephone system for reporting transit information to the public	NR		Long Beach Transit Information 562-591-2301	
Organizations your agency sends information for dissemination to the public	NR		LACMTA information 800-266-6883, SCAG Transtar Information System	
Data collected, archived, and/or transferred to another agency				

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**
Collected by your agency	Transit operations coordination information, Highway operations coordination information, Emergency/evacuation routes and procedures, Intermodal (air, rail, water) conditions, Scheduled roadway work zones for transit, Current roadway work zones for transit, Incidents, Passenger information (e.g., surveys, O/D), Passenger count	Transit operations coordination information, Highway operations coordination information, Emergency/evacuation routes and procedures, Intermodal (air, rail, water) conditions, Scheduled roadway work zones for transit, Current roadway work zones for transit, Incidents, Passenger count	Incidents, Passenger information (e.g., surveys, O/D)	Passenger count, Vehicle time and location

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**
Archived by your agency	Transit operations coordina	Transit operations coordina	Incidents, Passenger inforn	NR

Agency Name	Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**
Transferred to another agency by your agency	Transit operations coordination information, Passenger count	Transit operations coordination information, Passenger count	NR	Vehicle time and location
Importance of making information available to the public				
Ranked High	Transit operations coordination information, Highway operations coordination information, Emergency/evacuation routes and procedures, Intermodal (air, rail, water) conditions, Scheduled roadway work zones for transit, Current roadway work zones for transit, Incidents, Passenger count		Passenger count, Vehicle time and location	
Ranked Medium	Passenger information (e.g., surveys, O/D)		Incidents	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Laguna Beach Municipal Transit Lines		Long Beach Public Transportation Company	
	1999	**2005**	**1999**	**2005**
Ranked Low	NR		Passenger information (e.g., surveys, O/D)	
Groups that make requests for the data	MPOs, Federal DOT personnel, State DOT personnel		MPOs, Federal DOT personnel	
What is the data used for?	Dissemination to the public, Planning		Dissemination to the public, Planning	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Los Angeles City		Montebello Bus Lines	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Methods used to disseminate transit information to the public				
Technologies your agency uses to disseminate:				
Transit routes, schedules and fares	Telephone System	Internet Web Sites	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Technologies employed by other organization receiving your data				
Transit routes, schedules and fares	Telephone System	NR	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Internet web site reporting transit routes, schedules and fare, etc.	NR		NR	
Telephone system for reporting transit information to the public	NR		323-887-4545-General Fixed Route 323-887-4646-Demand Responsive 213-922-7035 MTA General Information	
Organizations your agency sends information for dissemination to the public	Los Angeles County Metropolitan Transit Authority		Los Angeles County Metropolitan Transportation Authority -General Information	
Data collected, archived, and/or transferred to another agency				

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Los Angeles City		Montebello Bus Lines	
	1999	**2005**	**1999**	**2005**
Collected by your agency	Passenger information (e.g., surveys, O/D), Passenger count	NR	Intermodal (air, rail, water) conditions, Incidents, Passenger information (e.g., surveys, O/D), Passenger count	Intermodal (air, rail, water) conditions, Incidents, Passenger information (e.g., surveys, O/D), Passenger count

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Los Angeles City		Montebello Bus Lines	
	1999	**2005**	**1999**	**2005**
Archived by your agency				
	NR	NR	Intermodal (air, rail, water)	Intermodal (air, rail, water)

Agency Name	Los Angeles City		Montebello Bus Lines	
	1999	**2005**	**1999**	**2005**
Transferred to another agency by your agency	NR	NR	Intermodal (air, rail, water) conditions, Incidents, Passenger information (e.g., surveys, O/D), Passenger count	Intermodal (air, rail, water) conditions, Incidents, Passenger information (e.g., surveys, O/D), Passenger count
Importance of making information available to the public				
Ranked High	Passenger count		Intermodal (air, rail, water) conditions, Incidents, Passenger information (e.g., surveys, O/D), Passenger count	
Ranked Medium	Passenger information (e.g., surveys, O/D)		NR	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Los Angeles City		Montebello Bus Lines	
	1999	**2005**	**1999**	**2005**
Ranked Low	NR		NR	
Groups that make requests for the data	Local Funding Provider and City Staff, Consultants, MPOs		Consultants, MPOs, Federal DOT personnel, State DOT personnel, Universities	
What is the data used for?	Dissemination to the public, Planning, Do not know		Dissemination to the public, Planning	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Methods used to disseminate transit information to the public				
Technologies your agency uses to disseminate:				
Transit routes, schedules and fares	Kiosks, Internet Web Sites, Telephone System	NR	NR	Audible Enunciators, Variable Message Signs (in vehicle), Kiosks, Pagers or personal data assistants, Internet Web Sites, Telephone System
Real-time transit schedule adherence or arrival and departure times	Kiosks	NR	NR	Audible Enunciators, Variable Message Signs (in vehicle), Kiosks, Pagers or personal data assistants, Internet Web Sites, Telephone System
Technologies employed by other organization receiving your data				
Transit routes, schedules and fares	Kiosks, Internet Web Sites	NR	NR	Kiosks, Pagers or personal data assistants, Internet Web Sites, Telephone System
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	Kiosks, Pagers or personal data assistants, Internet Web Sites, Telephone System
Internet web site reporting transit routes, schedules and fare, etc.	NR		www.octa.net	
Telephone system for reporting transit information to the public	NR		714.636.RIDE (7432)	
Organizations your agency sends information for dissemination to the public	NR		Southern California Association of Government	
Data collected, archived, and/or transferred to another agency				

Agency Name	Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**
Collected by your agency	Transit operations coordination information, Scheduled roadway work zones for transit, Current roadway work zones for transit, Incidents, Passenger information (e.g., surveys, O/D), Passenger count, Vehicle time and location	Intermodal (air, rail, water) conditions, Weather conditions, Road conditions, Trip itinerary planning records	NR	Incidents, Passenger information (e.g., surveys, O/D), Trip itinerary planning records, Passenger count, Vehicle time and location

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**
Archived by your agency				
	Incidents, Passenger inforr	NR	NR	Incidents, Passenger inforr

Agency Name	Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**
Transferred to another agency by your agency	NR	NR	NR	Trip itinerary planning records, Vehicle time and location
Importance of making information available to the public				
Ranked High	Transit operations coordination information, Intermodal (air, rail, water) conditions, Scheduled roadway work zones for transit, Current roadway work zones for transit, Incidents, Passenger information (e.g., surveys, O/D), Passenger count, Vehicle time and location		Trip itinerary planning records	
Ranked Medium	Trip itinerary planning records		Vehicle time and location	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Norwalk Transit System		Orange County Transportation Authority	
	1999	**2005**	**1999**	**2005**
Ranked Low	Weather conditions, Road conditions		Incidents, Passenger information (e.g., surveys, O/D), Passenger count	
Groups that make requests for the data	Consultants, MPOs, Federal DOT personnel, State DOT personnel, Universities		Consultants, MPOs, Federal DOT personnel, State DOT personnel	
What is the data used for?	Planning		Planning	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Simi Valley Transit		South Coast Area Transit	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Methods used to disseminate transit information to the public				
Technologies your agency uses to disseminate:				
Transit routes, schedules and fares	Variable Message Signs (in vehicle), E-mail or other direct PC communication, Internet Web Sites, Telephone System	NR	Variable Message Signs (in vehicle), E-mail or other direct PC communication, Internet Web Sites, Telephone System	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Technologies employed by other organization receiving your data				
Transit routes, schedules and fares	Telephone System	NR	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR
Internet web site reporting transit routes, schedules and fare, etc.	NR		NR	
Telephone system for reporting transit information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	
Data collected, archived, and/or transferred to another agency				

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Simi Valley Transit		South Coast Area Transit	
	1999	**2005**	**1999**	**2005**
Collected by your agency	NR	NR	Passenger count	Passenger information (e.g., surveys, O/D), Passenger count

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Simi Valley Transit		South Coast Area Transit	
	1999	**2005**	**1999**	**2005**
Archived by your agency	NR	NR	NR	NR

Agency Name	Simi Valley Transit		South Coast Area Transit	
	1999	**2005**	**1999**	**2005**
Transferred to another agency by your agency	NR	Passenger count, Vehicle time and location	NR	NR
Importance of making information available to the public				
Ranked High	Passenger count, Vehicle time and location		NR	
Ranked Medium	NR		Passenger information (e.g., surveys, O/D)	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Simi Valley Transit		South Coast Area Transit	
	1999	**2005**	**1999**	**2005**
Ranked Low	NR		Passenger count	
Groups that make requests for the data	Federal DOT personnel		Consultants	
What is the data used for?	Do not know		Planning	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Methods used to disseminate transit information to the public				
Technologies your agency uses to disseminate:				
Transit routes, schedules and fares	Kiosks, Internet Web Sites, Telephone System	NR	Internet Web Sites, Telephone System, Dedicated cable TV	Kiosks, Internet Web Sites, Telephone System, Dedicated cable TV
Real-time transit schedule adherence or arrival and departure times	NR	Audible Enunciators, Monitors/VMS (not in vehicle)	Audible Enunciators, Internet Web Sites, Telephone System, Dedicated cable TV	Audible Enunciators, Kiosks
Technologies employed by other organization receiving your data				
Transit routes, schedules and fares	NR	NR	Telephone System	Telephone System
Real-time transit schedule adherence or arrival and departure times	NR	NR	Telephone System	Telephone System
Internet web site reporting transit routes, schedules and fare, etc.	NR		www.torrnet.com	
Telephone system for reporting transit information to the public	NR		1-800-COMMUTE	
Organizations your agency sends information for dissemination to the public	NR		Southern California Association of Governments, LA County Metropolitan Transportation Agency, other community organizations	
Data collected, archived, and/or transferred to another agency				

Agency Name	Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**
Collected by your agency	NR	NR	Transit operations coordination information, Scheduled roadway work zones for transit, Current roadway work zones for transit, Passenger information (e.g., surveys, O/D), Passenger count, Vehicle time and location	Transit operations coordination information, Scheduled roadway work zones for transit, Current roadway work zones for transit, Passenger information (e.g., surveys, O/D), Passenger count, Vehicle time and location

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**
Archived by your agency	NR	NR	NR	NR

Agency Name	Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**
Transferred to another agency by your agency	NR	NR	NR	NR
Importance of making information available to the public				
Ranked High	NR		Transit operations coordination information, Vehicle time and location	
Ranked Medium	NR		Scheduled roadway work zones for transit, Current roadway work zones for transit	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Southern California Regional Rail Authority		Torrance City Transit System	
	1999	**2005**	**1999**	**2005**
Ranked Low	NR		Passenger information (e.g., surveys, O/D), Passenger count	
Groups that make requests for the data	NR		Consultants, MPOs, Federal DOT personnel, Universities	
What is the data used for?	NR		Funding Oversight	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Victor Valley Transit Authority	
	1999	**2005**
Agency Returned Survey?	Yes	
Methods used to disseminate transit information to the public		
Technologies your agency uses to disseminate:		
Transit routes, schedules and fares	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR
Technologies employed by other organization receiving your data		
Transit routes, schedules and fares	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR
Internet web site reporting transit routes, schedules and fare, etc.	NR	
Telephone system for reporting transit information to the public	NR	
Organizations your agency sends information for dissemination to the public	NR	
Data collected, archived, and/or transferred to another agency		

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Victor Valley Transit Authority	
	1999	**2005**
Collected by your agency	NR	NR

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Victor Valley Transit Authority	
	1999	**2005**
Archived by your agency	NR	NR

Agency Name	Victor Valley Transit Authority	
	1999	**2005**
Transferred to another agency by your agency	NR	NR
Importance of making information available to the public		
Ranked High	NR	
Ranked Medium	NR	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Los Angeles, Anaheim, Riverside

Agency Name	Victor Valley Transit Authority	
	1999	**2005**
Ranked Low	NR	
Groups that make requests for the data	NR	
What is the data used for?	NR	

Appendix L
Emergency Management

	Total Vehicles		Navigation Capabilities		AVL		CAD		CAD Equipped with Mobile Data Terminal		Vehicles Equipped with Preemption		Participate in Formal Incident Mgt Program	Send Incident Info to other agencies	
Agency Name	1999	2005	1999	2005	1999	2005	1999	2005	1999	2005	1999	2005			List of agencies receiving data
Anaheim Police Department	111	111	0	NR	0	NR	105	111	50	111	0	NR	Yes	Yes	Federal Bureau of Investigation, Federal Emergency Management Agency, Office of Emergency Services, Department of Transportation, County Operating Area Office
Caltrans District 7	36	36	0	0	0	0	0	0	0	0	0	0	Yes	No	None listed
Costa Mesa Police Department	104	110	0	0	0	90	104	110	83	90	0	0	Yes	No	None listed
Garden Grove City Fire & EMS Department	12	12	0	0	0	0	12	12	0	12	0	0	No	Yes	Metro Net Fire Dispatch
Garden Grove City Police Department	100	NR	0	NR	0	NR	45	NR	45	NR	0	NR	Yes	No	None listed
Glendale City Fire Department	24	26	0	14	0	26	24	26	24	26	3	26	Yes	No	None listed
Glendale City Police Department	80	85	0	0	0	0	80	85	35	50	0	36	Yes	No	None listed
Inglewood City Fire Department	18	NR	0	NR	0	NR	18	NR	6	NR	0	NR	No	No	None listed
Pomona Police Department	45	50	0	0	0	0	45	50	45	50	0	0	Yes	Yes	None listed
Riverside Police Department	400	NR	0	NR	0	NR	400	NR	180	NR	0	NR	Yes	NR	None listed
San Bernardino County Police Department	114	114	0	0	0	0	104	104	104	104	0	0	Yes	No	None listed
Santa Ana City Police Department	224	235	0	0	0	0	147	153	127	133	0	0	Yes	No	None listed