

## **Appendix C**

### **Completed Surveys**

# New York – INFORM PROJECT

<b>Name of Agency</b>	INFORM – Long Island, New York State DOT
<b>General Information</b>	
<b>Contact Name/s and Number/s</b>	Emilio Sosa Ph (631) 952-6733 Fax (631) 952-6780
<b>Address and E-mail</b>	esosa@dot.state.ny.us
<b>Date of Interview</b>	10/30/03
<b>Remarks</b>	INFORM has been operational for 16 years. It started in 1987.
<b>Agency Characteristics and System Deployed</b>	
<b>1. Number of CMS Deployed</b>	153 Permanent 26 Portable Signs
<b>2. Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	This depends on where the sign is located. On the freeways, they are either 4 lines by 16 characters or 3 lines by 16 characters. On the major arterials (at critical diversion points or ramps), they are 1 or 2 lines by 12 or 13 characters.
<b>3. What future CMS deployment plans do you have?</b>	<p>They currently have 190 centerline miles deployed. They would like to increase this to 340 centerline miles. They have 2 new construction projects in the works. They are both travel time projects.</p> <p>1. Linear Travel Time Signs – These are roadside static signs that will include a CMS insert panel. These signs will display travel time to upcoming intersections. The actual signs may include distance to each intersection. The current plan is to deploy 12 of these signs by summer 2004. (See picture)</p> <div> </div> <p>2. Diversion Travel Time Signs – These are also roadside static signs that will include a CMS insert panel. These signs will display travel time for a certain destination using different routes. The current plan is to deploy 3 of these signs. (See picture - sign colors not representative of proposed sign)</p> <div> </div> <p>Data Collection to compute Travel Time – Data that will be used to compute travel time will come from 2 sources. The first data source is the spot speed data from the detectors that exist on the roadways. The other data source is from the TRANSMIT project, which is part of TRANSCOM</p>

	<p>where data is collected through the EZ pass toll transponders and tags.</p> <p>Note, the above hybrid CMS/static signs will display travel time information continuously. They will supplement existing CMS, which will not be used to display travel times. Instead, the CMS will include relevant information regarding travel conditions.</p>
<b>4. Primary Areas Deployed</b>	Approximately 50% of the signs are deployed on the freeways and the other 50% on major arterials. Specifics to be added...
<b>5. Controlling Agency</b>	24/7 Operations: INFORM operates the TMC and the signs 24/7.
<b>6. What is the main purpose of the CMS?</b>	<p>Display messages on:</p> <ul style="list-style-type: none"> <li>• Travel time (real-time) – currently do not display any travel time.</li> <li>• Construction - Yes</li> <li>• Real-time incidents, etc? – Yes</li> </ul> <p>Main purpose is to report traffic information relating to recurring and non-recurring congestion.</p>
<b>Messaging – LEVEL OF USE</b>	
<b>1. In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<p><u>Travel Time</u>: None</p> <p><u>Homeland Security/Emergencies</u>: Once, they put</p> <p><u>AMBER ALERT</u>: 5 messages throughout the state. Locally 2 messages.</p> <p><u>Traffic Conditions</u>: They average around 4400 messages a day (both automated and manual)</p>
<b>Messaging - BASIS</b>	
<b>1. What condition is occurring?</b>	N/A
<b>2. What segment or region is impacted?</b>	N/A
<b>3. What outcome or driver response is desired</b>	They very rarely tell the driver “what to do”. The reasons being that they would like to instrument more miles, and due to legal issues and complications that may arise. The only time they would post a message on diversion or alternate route is when the road is closed or if the road has major delays.
<b>Messaging – CONTENT</b>	
<b>1. How is the message structured to maximize driver comprehension</b>	N/A
<b>2. How is the message tailored to suit different sign types and environmental conditions?</b>	<p><u>Sign Types</u>: They have different sign libraries with various syntax with the ability to add new ones anytime to the library.</p> <p>They do not take into account any environmental conditions.</p>
<b>3. Is the message aimed at commuters, unfamiliar drivers or other groups?</b>	<u>Traffic</u> : Mostly Commuters. Sometimes, during the summer tourist season, for a couple signs on the tourist route are tailored to provide alternate routes and direction to get to the destination.
<b>4. Is the content automated or is it put together by an operator?</b>	<u>Traffic</u> : The messages are automated based on the speed data thresholds. They are also inputted manually by an operator.
<b>5. How is the message coordinated with other information dissemination techniques, i.e. 511?</b>	Currently the only agency they coordinate with is New York City. INFORM provides the traffic related information to the local media and cable channels. The media and a 24 hour traffic and weather cable channel get their video feeds. The radio channels receive fax updates every 15 minutes during peak hours and only when an incident occurs during non-peak hours.
<b>6. What is the typical actual wording used on CMS</b>	<p><u>Travel Time</u>: For the future Travel time signs, see the picture earlier.</p> <p>AMBER ALERT: AMBER ALERT- Vehicle Type, License Number and sometimes a phone number to contact.</p>
<b>Messaging – OPERATIONAL POLICIES</b>	
<b>1. Whose authority is needed to initiate a message?</b>	The operators at the TMC.

<b>2. What are the arrangements for posting, updating, and terminating a message?</b>	N/A
<b>3. What is the process for inter-agency coordination?</b>	If New York City needs a message posted, they will call INFORM with the details, and the operators will modify it accordingly based on the sign conventions and place it on their signs. INFORM is the clearinghouse for the state. The State Police notifies them of any emergencies and the TMC personnel contact the appropriate state agencies for displaying the information.
<b>4. How are messages prioritized when multiple messages are desired?</b>	Local incidents and traffic situations take priority over the regional ones, unless the regional one is a major traffic related event.
<b>OTHER</b>	
<b>1. Do you have some guidelines that you currently use to display messages?</b>	Not really guidelines. But he will send us a VMS messaged document.
<b>2. Are you using any ITS Standards?</b>	No. Their system was installed a while back. Even the new systems will not be using ITS standards because they have to integrate with the legacy system.
<b>3. Do you use pre-canned messages most of the time?</b>	Both pre-canned and manual – Situation dependent
<b>4. Are your CMS's linked to a regional system?</b>	The system they operate is a regional system. They are not linked to any other system. Theirs is the largest.
<b>5. Have you received any feedback on the types, content, etc of messages from anyone?</b>	All the feedback received so far has been positive. The commuters especially like the fact that there is information displayed on the signs 24 hours and it is never blank.
<b>6. Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	N/A
<b>7. Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	They can operate one, multiple, or a group of them – a variety of options.
<b>8. How do you handle coordination of messages with neighboring states?-</b>	Not applicable

# New York – Statewide

<b>Name of Agency</b>	New York State DOT – Statewide Regional Areas apart from INFORM
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	<p><b>Ed Roberts, NYSDOT</b> Ph: 518-457-1944 Fax: E-mail:eroberts@dot.state.ny.us</p> <p><b>John Bassett, NYSDOT</b> Ph: Fax: E-mail: jrbassett@dot.state.ny.us</p>
<b>1.2 Address</b>	
<b>1.3 Date of Interview</b>	11/4/03
<b>1.4 Remarks</b>	
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	Statewide Permanent – 193 (this includes the signs deployed by INFORM) Portable – 195 (this includes the signs deployed by INFORM)
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	Vary based on location. Most of them are 3 line 16 character – Some of them are 24 to 28 character.
<b>2.3 What future CMS deployment plans do you have?</b>	All the major regions have ITS Strategic Plans – CMS are part of the plans. With the exception of Long Island, most of the regions plan to install or enhance their current deployment over the next 5-10 years.
<b>2.4 Primary Areas Deployed</b>	Located in various regions. Primarily 8 regions including Lower Hudson Valley, downstate, New York City, and Long Island. Regions have anywhere from 3 to 18 signs.
<b>2.5 Controlling Agency</b>	<p>The regions that have TMC's operate 24/7. There are a few exceptions in some regions.</p> <ul style="list-style-type: none"> <li>• In the Buffalo area, an independent agency, NITEC (Niagara International Transportation Technology Corporation) controls all the field devices. This agency is a coalition of 16 agencies including City of Niagara on the Canadian side. NITEC operates 24 hours. The agencies that are part of this coalition also have control over the devices. There are currently 15 to 20 signs that are operated by NITEC.</li> <li>• In the Albany region, the state police are trained and are co-located in the TMC- so they have control if they want to change any messages.</li> <li>• In another region, the city has reached an agreement with the County Emergency Center, which takes control of the signs after regular operating hours – The County Emergency Center was trained on how to operate the signs and post messages.</li> <li>• In some of the rural locations, the state police in that region have terminals and controls to post messages.</li> </ul>
<b>2.6 What is the main purpose of the CMS?</b>	<p>Display messages on:</p> <ul style="list-style-type: none"> <li>• Incident Related Information</li> <li>• Lane Closures</li> <li>• Construction</li> <li>• Weather Advisories</li> <li>• Amber Alert</li> <li>• Looking to provide Travel time in the future based on the INFORM model.</li> </ul>
<b>2.7 Where offered, what is the historical origin of providing travel time</b>	They don't provide travel time currently.

information?	
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<u>Travel Time</u> : - None <u>Homeland Security/Emergencies</u> : - Once <u>AMBER ALERT</u> : - 3 times.
<b>4 Messaging - BASIS</b>	
<b>4.1 What condition is occurring?</b>	<u>Homeland Security/Emergencies</u> : - The one time they provided it, they received the direction from the State Office of Security. They put the Terror Tip Line information with a threat level color. The public got confused and the tip line got flooded with calls. This was up only for 1 day. They took it out the next day immediately. <u>AMBER ALERT</u> : Make, Model and License Plate (being debated) of the car.
<b>4.2 What segment or region is impacted?</b>	<u>Homeland Security/Emergencies</u> : Throughout the State <u>AMBER ALERT</u> : The State Police has divided the state into a dozen activation areas. Out of the three messages that have been displayed so far, there have been a couple in the NYC metro area and 1 in the Syracuse/Rochester Area.
<b>4.3 What outcome or driver response is desired</b>	<u>AMBER ALERT</u> : Have the public tune to local radio stations.
<b>5 Messaging – CONTENT</b>	
<b>5.1 How is the message structured to maximize driver comprehension</b>	The content of the message is controlled by the policy. For the permanent signs, they usually have the condition on the 1 line, and then related information on the next lines. On the portables, they use abbreviations due to limitations.
<b>5.2 How is the message tailored to suit different sign types and environmental conditions?</b>	If its portable, the message is abbreviated.
<b>5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?</b>	Mainly targeted towards commuters. When they post special event messages, these are aimed at unfamiliar drivers/tourists.
<b>5.4 Is the content automated or is it put together by an operator?</b>	Mostly manual.
<b>5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?</b>	They coordinate with the media in each urban area. They send them e-mails and/or call them.
<b>5.6 What is the typical actual wording used on CMS</b>	Will send.
<b>5.7 Do you have any images you can share of CMS messaging applications?</b>	Will send.
<b>6 Messaging – OPERATIONAL POLICIES</b>	
<b>6.1 Whose authority is needed to initiate a message?</b>	The operators. The content of the message is controlled by the policy. They also have some pre-canned messages.
<b>6.2 What are the arrangements for posting, updating, and terminating a message?</b>	<u>Homeland Security/Emergencies</u> : From the State Office of Security – to the Commissioner – to the Clearinghouse. <u>AMBER ALERT</u> : State Police sends an e-mail to all the TMC's and INFORM (the clearinghouse). INFORM will contact the appropriate agencies for posting the messages. The messages are displayed for 8 hours, unless they hear from INFORM that it has to be cleared.
<b>6.3 What is the process for</b>	INFORM is the clearinghouse for messages related to Amber Alerts. The

<b>inter-agency coordination?</b>	rest of the messages are coordinated by telephone on an as needed basis.
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	Incident Related messages always come first.
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	1. VMS General Policy 2. Statewide Amber Alert Policy
<b>7.2 Are you using any ITS Standards?</b>	Yes – for the new ones and the ones that were acquired 6 months back. Some of the older signs are not NTCIP compliant.
<b>7.3 Do you use pre-canned messages most of the time?</b>	They use manual messages most of the time. They also have template messages that an operator can tailor according to the situation.
<b>7.4 Are your CMS's linked to a regional system?</b>	No.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	Received a mix of suggestions and complaints. Commuters don't like seeing messages that are "general (use seat belts, etc).
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	<ul style="list-style-type: none"> <li>• Some guidelines on what is "nationally" acceptable Amber Alert messages.</li> <li>• Also some guidance from FHWA on how to tell companies/associations that they can't put messages regarding public service announcements.</li> </ul>
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	Yes.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	<ul style="list-style-type: none"> <li>• Coordination currently exists with NITEC (coordinate with the Ministry of Ontario).</li> <li>• Downstate, they coordinate with TransCom (telephone call)</li> </ul>

# Virginia – Hampton Roads

<b>Name of Agency</b>	Hampton Roads – Virginia DOT
<b>1. General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	Stephany Hanshaw Ph: 757-424-9907 Fax: 757-424-9911 s.hanshaw@virginiadot.org  James Mock Ph: 757-424-9906 Fax: 757-424-9911 James.Mock@VirginiaDOT.org
<b>1.2 Address</b>	
<b>1.3 Date of Interview</b>	10/31/03
<b>1.4 Remarks</b>	Received a copy of the Draft VDOT Policy. Each district has the ability to tailor it according to their local conditions.
<b>2. Agency Characteristics and System Deployed</b>	
<b>2.1. Number of CMS Deployed</b>	80 Permanent Signs – Various Manufacturers including Daktronics, Mark IV, LEDStar. 8 Portable – Solar Powered. Cell phone Connectivity for Remote Operation.
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	They are of different types, flip disk, LED, Hybrid, etc. Most of them are 3 Row 13 Character and the Messages have a maximum of 3 frame capability. They try to keep the messaging to 2 frames.
<b>2.3. What future CMS deployment plans do you have?</b>	They want to expand their coverage to 113 centerline miles. The plans are to add 40 more signs over the next 24 months to cover 60 miles of the total 113 miles. These new signs will primarily be installed in the rural areas and cover Interstate I 66. New vendor, Vultron will be providing some of the new signs.
<b>2.4. Primary Areas Deployed</b>	Most of the signs are dedicated to the interstates. The arterial street signs are deployed at the approaches to the interstates. The arterial street signs are not more than a mile away from the interstate access.
<b>2.5 Controlling Agency</b>	They are a TMC and they have 24/7 operations. They are the only controlling agency currently. They are planning to allow the City of Norfolk to have the capability to post messages on specific signs that the TMC is not using. The TMC currently provides video feeds to the City of Norfolk.
<b>2.6 What is the main purpose of the CMS?</b>	Display messages on: <ul style="list-style-type: none"> <li>• Motorist Advisory (traffic and construction)</li> <li>• Lane Control</li> <li>• HOV reversible Roadway Operations (they have a 8 mile dedicated reversible HOV lane).</li> <li>• Amber Alerts</li> <li>• Delays in “minutes”</li> </ul>
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<u>Travel Time</u> : They don't provide this currently. <u>Homeland Security/Emergencies</u> : Have not used any. <u>AMBER ALERT</u> : 3 Times <u>Delay Messages</u> : Daily at the Hampton Roads Bridge Tunnel Area.
<b>4 Messaging - BASIS</b>	
<b>4.1 What condition is occurring?</b>	<u>Delay Time</u> : Currently post delay time in “X” minutes. This is based on visual verification through the video surveillance near the tunnel.

	<p><u>AMBER ALERT</u>: The Virginia State Police contacts the Traffic Emergency Operations Center (TEOC). The TEOC will alert the TMC to post a message. They do not call them Amber Alerts. They call it Child Abduction Alert. They use this term because they do not want to confuse the public in using the color AMBER, which may be construed as a color code for the security “threat levels”.</p>
4.2 What segment or region is impacted?	<p><u>Delay Time</u>: They provide the route.</p> <p><u>AMBER ALERT</u>: They provide the vehicle make, model, color, if available. They will not display the license plate due to safety concerns and driver distractions. They will sometimes, put a line to read “tune to local media”.</p>
4.3 What outcome or driver response is desired	<p><u>Delay Time</u>: When the delay at the tunnel is more than 30 minutes, the TMC provides alternate routes.</p> <p><u>AMBER ALERT</u>: Out of the 3 alerts, one of them was successful, but they are not sure if the CMS message had anything to do with the success.</p>
<b>5 Messaging – CONTENT</b>	
5.1 How is the message structured to maximize driver comprehension	<p>They use the FHWA Guidelines. They emulate the suggestions made by the guidelines. Prior to the guidelines, there was a lot of discussion on what were the right words to use for structuring messages.</p> <p><u>AMBER ALERT</u>: The statewide Amber Alert Policy.</p>
5.2 How is the message tailored to suit different sign types and environmental conditions?	The TMC has pre-designated incident response plans. When an incident occurs, messages are generated automatically using the computer generated software for the response plans. The operator has the ability to change this at any time.
5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?	The TMC is very conscious of the messages they display. They have a lot of tourist traffic, so they try and keep the messages more generic rather than route specific.
5.4 Is the content automated or is it put together by an operator?	Mostly automated. When multiple incidents occur, they use manual methods.
5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?	They have 2 HAR’s. Planning to expand it to 4 more. The messages send to HAR are canned. They currently don’t have 511. When they get 511, it will be managed by districts, so they can coordinate it easily.
5.6 What is the typical actual wording used on CMS	Will send info.
<b>6 Messaging – OPERATIONAL POLICIES</b>	
6.1 Whose authority is needed to initiate a message?	<p><u>Delay Time and Motorist Advisories</u> - Operators</p> <p><u>Homeland Security/Emergencies</u>: Have to be coordinated with the central office. They have not displayed any messages so far.</p> <p><u>AMBER ALERT</u>: The TEOC</p>
6.2 What are the arrangements for posting, updating, and terminating a message?	<u>AMBER ALERT</u> : The statewide Amber Alert Policy
6.3 What is the process for inter-agency coordination?	<u>AMBER ALERT</u> : Coordinate with TEOC
6.4 How are messages prioritized when multiple messages are desired?	Their main priority is incident management and making sure traffic flows freely. Incident messages take priority.
<b>7 OTHER</b>	
7.1 Do you have some guidelines that you currently use to display messages?	FHWA Publication – Principles of Message Design – One module in the document titled CMS Message Design.
7.2 Are you using any ITS Standards?	About half of their current signs are NTCIP Compliant. The new ones will be NTCIP compliant.

<b>7.3 Do you use pre-canned messages most of the time?</b>	Yes.
<b>7.4 Are your CMS's linked to a regional system?</b>	They are a regional TMC. They currently have a plan to have a continuity of operations during any major emergency situations. This plan has not been deployed...its just a plan currently. This plan will allow the TMC to continue operations remotely.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	Would like to apply the actual research (if any has been done) on the field. This includes motorist behavior to certain messages, effectiveness of CMS, etc.  Their main concern is that the motorist should have enough confidence in what they are reading on the messages, especially when providing travel time.
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	Yes.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	Currently coordinate with North Carolina to coordinate any incident related information (through phone call). Do not coordinate often with the State of Maryland unless there is some major construction project that will produce significant delays.

# Virginia – VDOT

<b>Name of Agency</b>	Virginia DOT
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	Kevin Barron
<b>1.2 Address</b>	1221 E. Broad St. Richmond, VA 23219
<b>1.3 Date of Interview</b>	1/22/04
<b>1.4 Remarks</b>	This interviewee specified he had very little time, therefore the interview concentrates <i>only</i> on VMS for homeland security.
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	Travel Time:  Homeland Security/Emergencies: I thought we may have used VMS during the sniper attacks last year, but actually it was only after Sept 11th. We posted the terrorist tip line; a 1-800 number. I believe the FBI received those calls.  AMBER ALERT:
<b>4.1 What condition is occurring?</b>	<u>Homeland Security/Emergencies:</u> After September 11 <sup>th</sup> . There was confusion when the message went up; people called the tip line, thinking they could get information on terrorist activities. Also, a 10 digit number is too bulky for VMS; too much information to be valuable to a motorist. AMBER ALERT: Child abduction
<b>6.1 Whose authority is needed to initiate a message?</b>	<u>Homeland Security/Emergencies:</u> The message posting the tip line came from the Governor's office. AMBER ALERT: CHP
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	We have just finished writing our guidelines for VMS in Virginia. There is some text in that document regarding what and how to place messages related to homeland security.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	When posting messages related to homeland security, DOT's need to consider: why would you want to alert people in cars about this? You could flash the message on television and radio and reach more people. You have to consider, what information is being posted, to whom is it directed, and why is it effective on VMS? VMS is not a billboard. If there is a reason to communicate with people in cars, what is that reason. There are specific issues with reading VMS; a long or inappropriate message could have negative impact on traffic.

# Arizona – Arizona DOT

Name of Agency	AZ DOT
<b>1 General Information</b>	
1.1 Contact Name/s and Number/s	Manny Agah 602-712-7640
1.2 Address	Arizona Dept. of Transportation, Traffic Operations Center 2302 W. Durango St., Phoenix, AZ 85009
1.3 Date of Interview	Filled out electronically.
1.4 Remarks	None
<b>2 Agency Characteristics and System Deployed</b>	
2.1 Number of CMS Deployed	Urban: 130 Rural: 50
2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling	Fiber-optic, alphanumeric character matrix. Three lines per display. 18 characters per line; 18-in-high character.
2.3 What future CMS deployment plans do you have?	Approximately, 10 CMSs are deployed on rural highways annually, with plans to install several CMSs in the Phoenix and Tucson urban areas.
2.4 Primary Areas Deployed	See 2.3 above.
2.5 Controlling Agency	24/7 Operations: Arizona DOT Traffic Operations Center
2.6 What is the main purpose of the CMS?	<ul style="list-style-type: none"> <li>• Construction prewarning</li> <li>• During incidents</li> </ul>
2.7 Where offered, what is the historical origin of providing travel time information?	NA
<b>3 Messaging – LEVEL OF USE</b>	
3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?	Travel Time: NA (Do not post TT) Homeland Security/Emergencies: 3 AMBER ALERT: 4
<b>4 Messaging - BASIS</b>	
4.1 What condition is occurring?	Homeland Security/Emergencies: Requested by the airport AMBER ALERT: Statewide
4.2 What segment or region is impacted?	Homeland Security/Emergencies: Urban AMBER ALERT: Statewide
4.3 What outcome or driver response is desired	Homeland Security/Emergencies: Informational purpose AMBER ALERT: Informational purpose
<b>5 Messaging – CONTENT</b>	
5.1 How is the message structured to maximize driver comprehension	Homeland Security/Emergencies: To-the-point and clear AMBER ALERT: a) Alert notification; b) abductor and vehicle information.
5.2 How is the message tailored to suit different sign types and environmental conditions?	AZ DOT uses only one type of CMS throughout the state. Messages are formatted for the existing sign.
5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?	Homeland Security/Emergencies: For general motorists AMBER ALERT: For general motorists
5.4 Is the content automated or is it put together by an operator?	Travel Time: Homeland Security/Emergencies: By an operator AMBER ALERT: By an operator

<b>5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?</b>	Travel Time: Homeland Security/Emergencies: Independent at this time. AMBER ALERT: Independent at this time.
<b>5.6 What is the typical actual wording used on CMS</b>	Travel Time: Homeland Security/Emergencies: AIRPORT INSPECTION IN PROGRESS EXPECT DELAYS  AMBER ALERT: CHILD ABDUCTION ALERT  BLUE FORD PICKUP LIC # 123 ABC
<b>5.7 Do you have any images you can share of CMS messaging applications?</b>	
<b>6 Messaging – OPERATIONAL POLICIES</b>	
<b>6.1 Whose authority is needed to initiate a message?</b>	Homeland Security/Emergencies: Department of Public Safety, AZ DOT, Governor's Office AMBER ALERT: Department of Public Safety
<b>6.2 What are the arrangements for posting, updating, and terminating a message?</b>	Homeland Security/Emergencies: As requested by authorities AMBER ALERT: As requested by authorities
<b>6.3 What is the process for inter-agency coordination?</b>	Homeland Security/Emergencies: Work is underway for the AZ DOT to post messages for the City of Phoenix, since the City does not operate 24/7. AMBER ALERT:
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	Homeland Security/Emergencies: The CMS closest to the incident obviously receives highest priority; severity of incident. AMBER ALERT:
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	Yes. The guidelines are part of the Traffic Operations Center Manual.
<b>7.2 Are you using any ITS Standards?</b>	All of the CMSs deployed by AZ DOT are NTCIP compliant.
<b>7.3 Do you use pre-canned messages most of the time?</b>	No.
<b>7.4 Are your CMS's linked to a regional system?</b>	No.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	Occasionally, the public provides some comments.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	<ul style="list-style-type: none"> <li>• Prewarning messages for construction, special events, etc.</li> <li>• General message formatting.</li> </ul>
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	Yes.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	A 24/7 dispatch center in the neighboring state (NV) can be contacted via telephone for posting message on the NV DOT CMS, which is close to AZ border in the event an incident has occurred in AZ.

# Arizona – FHWA

<b>Name of Agency</b>	FHWA
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	Alan Hansen 602-379-3645
<b>1.2 Address</b>	Federal Highway Administration One Arizona Center, Suite 410 400 E. Van Buren Str. Phoenix, AZ 85004
<b>1.3 Date of Interview</b>	January 5, 2004
<b>1.4 Remarks</b>	
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	General: Phoenix has a population of approximately 3 million. <ul style="list-style-type: none"> <li>• Arizona DOT (ADOT) - 70</li> <li>• City of Phoenix – 4</li> <li>• City of Tucson - 8</li> <li>• City of Scottsdale - 8</li> <li>• City of Mesa – 4</li> <li>• City of Gilbert - 2</li> </ul>
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	ADOT uses 3 lines of text, 18-inch characters. They put the message on one panel; they don't like to have different pages. The reason for this is they don't feel like the driver should be distracted. The cities have smaller signs; 2 lines of text in general, except for Scottsdale which uses 3 lines. The cities use paging where ADOT does not.
<b>2.3 What future CMS deployment plans do you have?</b>	ADOT is planning to have about 50 more; when they get to 120 they will consider CMS to be fully deployed. Almost all the cities are talking about deploying more CMS. Those encompass the AZTech signs as well. Maricopa County DOT (MCDOT) is pushing AZTech when they build a smart corridor. In these instances the sign is deployed by MCDOT but operated by the city in which the sign is located.
<b>2.4 Primary Areas Deployed</b>	ADOT has a heavy concentration in the Phoenix metro area, but signs are scattered throughout the state as well. Official ADOT criteria for sign placement: <ul style="list-style-type: none"> <li>• 2 miles before intersections of major routes</li> <li>• 2 miles before the first exit into a city with 3 or more off ramps</li> <li>• 2 miles before alternate routes for full roadway closures,</li> <li>• All interstates within 5 miles of a border or port of entry</li> <li>• 2 miles before an area of mandatory snow chain usage</li> <li>• Rest areas: in coordination with adjoining states</li> <li>• other areas where the districts deem necessary</li> </ul> Cities are mostly trying to deploy CMS on smart corridors, as well as around major sporting event areas like the America West Stadium and Bank One Ballpark.
<b>2.5 Controlling Agency</b>	Operations: ADOT is the only agency with 24/7 operations; the rest operate during business hours only. ADOT has the ability to operate City of Phoenix signs, so they can be operated 24/7.
<b>2.6 What is the main purpose of the CMS?</b>	To provide permanently located signs that can be programmed remotely to inform the traveling public of: <ul style="list-style-type: none"> <li>• Roadway conditions or changes</li> <li>• Notification of maintenance, construction, accidents, unique road conditions</li> <li>• Potential adverse weather conditions, road closures</li> <li>• Suggested alternate routes</li> </ul>

	<ul style="list-style-type: none"> <li>• Pollution advisories</li> <li>• Amber alerts</li> <li>• Public service announcements</li> </ul> <p>Travel Time: None. All we're doing is testing on one corridor I-17, from Buckeye Road to Peoria Ave. This is mainly a research project at the moment, currently in Phase I.</p>
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<p>Homeland Security/Emergencies: Alerting the drivers that if they're going to the airport, there will be vehicle inspection. This is done during Orange alerts.</p> <p>AMBER ALERT: We have had 3 AMBER alerts.</p>
<b>4 Messaging - BASIS</b>	
<b>4.1 What condition is occurring?</b>	<p>Homeland Security/Emergencies: During all Orange alerts.</p> <p>AMBER ALERT: Child abduction.</p>
<b>4.2 What segment or region is impacted?</b>	AMBER ALERT: 200 mile radius of the abduction
<b>4.3 What outcome or driver response is desired</b>	AMBER ALERT: To identify the vehicle
<b>5 Messaging – CONTENT</b>	
<b>5.1 How is the message structured to maximize driver comprehension</b>	3 lines, 18 characters per line. ADOT has specific guidelines as far as word and abbreviation library, order of information given, and amount of information given.
<b>5.2 How is the message tailored to suit different sign types and environmental conditions?</b>	Freeway VMS have 3 lines, 18 characters per. Portable VMS have 3 lines, 10 character per. Freeway VMS can display only 1 page, portable 2 pages.
<b>5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?</b>	AMBER ALERT: The public.
<b>5.4 Is the content automated or is it put together by an operator?</b>	Content is put together by an operator, using specific guidelines stated in the operations manual.
<b>5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?</b>	<p>Homeland Security/Emergencies: No other</p> <p>AMBER ALERT: The AMBER alert put into the Highway Condition and Reporting System (HCRS), and that automatically goes to the website and 511.</p>
<b>5.6 What is the typical actual wording used on CMS</b>	<p>EVENT TRAFFIC USE SPEEDWAY OR CONGRESS</p> <p>CHILD ABDUCTION RED FORD SUV / LIC XXX-XXX CALL 911</p> <p>Page 1: 1-10 EB RAMP CLOSED</p> <p>Page 2: TONIGHT AT 7 PM</p>
<b>6 Messaging – OPERATIONAL POLICIES</b>	
<b>6.1 Whose authority is needed to initiate a</b>	ADOT has sole responsibility for initiating messages.

<b>message?</b>	
<b>6.2 What are the arrangements for posting, updating, and terminating a message?</b>	Left to the discretion of the TMC operator.
<b>6.3 What is the process for inter-agency coordination?</b>	AMBER ALERT: There isn't really coordination for AMBER alerts between ADOT and cities, but there is coordination between ADOT and DPS, as well as a whole group of enforcement agencies that sit on an AMBER alert task force.
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	Event Priorities: <ul style="list-style-type: none"> <li>• Safety-related</li> <li>• Incidents</li> <li>• Traffic Management</li> <li>• Minor Traffic Impacts</li> <li>• Test Messages</li> <li>• Public Service Announcements</li> </ul>
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	We have pages of guidelines in our Operations Manual.
<b>7.2 Are you using any ITS Standards?</b>	NTCIP
<b>7.3 Do you use pre-canned messages most of the time?</b>	Generally pre-formatted messages, with operators filling in details.
<b>7.4 Are your CMS's linked to a regional system?</b>	All the ADOT signs in the state are linked to the ADOT freeway management system. In addition, through the AZTech server, ADOT has access to VMS that are owned by City of Phoenix. But, that's not the case with all jurisdictions.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	There have not been any studies directed specifically at determining how people feel about signs, but there have been studies that have been done that at least touch on it. For instance there is a current study targeting elderly or mature drivers. Some of the questions cover CMS. The feedback is positive. The only negative; people feel like they're not used enough.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	Getting CMS formatting standardized is important. How ever you want to lay it out nationally, it should be standard. First line accident, next one is location, 3 <sup>rd</sup> one what to do, it would help to have a national standard. Standards on abbreviations is important. Theoretically under the MUTCD, but not always used. The symbol, there needs to be some discussion.
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	All three.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	Done on an ADOT district level. For example, if there is something going on in Southeast Arizona, there is just a working relationship with the New Mexico people. A lower level working arrangement.

# Florida – Florida DOT

<b>Name of Agency</b>	Florida Department of Transportation
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	Larry Rivera 386-943-5312 and Jennifer Heller 386-943-5322
<b>1.2 Address</b>	719 S. Woodland Blvd., FL 32720
<b>1.3 Date of Interview</b>	11-6-03
<b>1.4 Remarks</b>	
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	Current: Approximately 30
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	Full matrix and capable of displaying multiple pages of at least three rows of fifteen, 18-inch characters. The DMS is capable of displaying multiple fonts, and flashing, centering, and left or right justifying messages.
<b>2.3 What future CMS deployment plans do you have?</b>	Complete the Interstate Roadways Install on Arterial Roadways for detour routes, evacuation routes and/or special events.
<b>2.4 Primary Areas Deployed</b>	Interstate Roadways and Arterial Roadways
<b>2.5 Controlling Agency</b>	24/7 Operations: FDOT
<b>2.6 What is the main purpose of the CMS?</b>	Display messages on: <ul style="list-style-type: none"> <li>• Delay Times</li> <li>• Construction lanes blocked info</li> <li>• Real-time incidents lanes blocked info</li> <li>• Where Congestion Begins and Ends</li> </ul>
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<u>Travel Time</u> : We use our DMS several times a day. <u>Homeland Security/Emergencies</u> : Have not used them for this, in the past 12 months. <u>AMBER ALERT</u> : Approximately 10
<b>4 Messaging - BASIS</b>	
<b>4.1 What condition is occurring?</b>	<u>Travel Time</u> : Congestion, incidents, etc. <u>Homeland Security/Emergencies</u> : N/A <u>AMBER ALERT</u> : Child Abducted
<b>4.2 What segment or region is impacted?</b>	Central Florida Region
<b>4.3 What outcome or driver response is desired</b>	For Traveler information purposes so drivers can make decisions and be informed.
<b>5 Messaging – CONTENT</b>	
<b>5.1 How is the message structured to maximize driver comprehension</b>	Only 2 Pages with 3 lines of text.
<b>5.2 How is the message tailored to suit different sign types and environmental conditions?</b>	Environmental Conditions: There are settings that can be changed to display the DMS Brighter for nighttime or rainy conditions. Sign Type: We typically use the same type of signs for our roadways. We have some that are for area attractions that display only one or two lines of text.
<b>5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?</b>	All types of groups. We keep the descriptions typical of what can be found on Guide Signs.
<b>5.4 Is the content automated or is it put together by an operator?</b>	Operator There are some automated devices that make suggestions and the operators make the final decision of the content.

<p><b>5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?</b></p>	<p>Our operations are all in one. Operators for DMS sit next to 511 Operators. All operators view the same information.</p>
<p><b>5.6 What is the typical actual wording used on CMS</b></p>	<p>Page 1: Congestion Ahead XX Miles X Min Delay</p> <p>Page 2: Congestion Ahead SR 50 to Lee Rd.</p> <p>Incident Related: Page 1: Accident Ahead XX Miles X Min Delay</p> <p>Page 2: Accident Ahead At Lee Rd. Lt Lane Blcoked</p> <p>Combined: Page 1 Accident Ahead At Lee Rd. Lt. Lane Blocked</p> <p>Page 2: Congestion Ahead XX Miles X Min Delay Or Page 2: Congestion Ahead SR 50 to Lee Rd. X Min Delay</p>
<p><b>6 Messaging – OPERATIONAL POLICIES</b></p>	
<p><b>6.1 Whose authority is needed to initiate a message?</b></p>	<p>Typical Congestion and Incident Messages are determined by the Operators. They do not need authorization to display messages. Homeland Security/Emergencies: Coordinated by FDOT, Florida Dept. of Law Enforcement (FDLE) and Florida Highway Patrol (FHP) AMBER ALERT: FDLE</p>
<p><b>6.2 What are the arrangements for posting, updating, and terminating a message?</b></p>	<p>Typical Congestion and Incident Messages are determined, posted, updated and terminated by the Operators. Homeland Security/Emergencies: Coordinated by FDOT, Florida Dept. of Law Enforcement (FDLE) and Florida Highway Patrol (FHP) AMBER ALERT: FDLE</p>
<p><b>6.3 What is the process for inter-agency coordination?</b></p>	<p>We keep lists with contact information on individuals who need to be notified for certain situations. These contact lists include way to contact someone 24 hours a day.</p>
<p><b>6.4 How are messages prioritized when multiple messages are desired?</b></p>	<p>Typical Congestion and Incident Messages are prioritized by the Operators. If there is a question on which message to display, they contact the Operations Manager for guidance. Homeland Security/Emergencies: This would be a coordinated by FDOT, Florida Dept. of Law Enforcement (FDLE) and Florida Highway Patrol (FHP). AMBER ALERT: This takes priority. When the amber alert is over, we go back to messages needed.</p>

<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	Yes.
<b>7.2 Are you using any ITS Standards?</b>	Some.
<b>7.3 Do you use pre-canned messages most of the time?</b>	Yes, then modified to fit the situation.
<b>7.4 Are your CMS's linked to a regional system?</b>	Yes.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	Not recently.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	Not at this time.
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	Regional Groups
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	N/A

# Illinois – Illinois DOT (Chicago)

<b>Name of Agency</b>	Illinois DOT – Traffic Systems Center
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	<p>1. Scott Lee – IDOT ITS Technical Coordinator, Gateway Project Manager. (847)-705-4800 E-mail: <a href="mailto:leesg@nt.dot.state.il.us">leesg@nt.dot.state.il.us</a></p> <p>2. Jeff Galas – IDOT Traffic Systems Center 708-524-2145 E-mail: <a href="mailto:GalasJM@nt.dot.state.il.us">GalasJM@nt.dot.state.il.us</a></p>
<b>1.2 Address</b>	120 West Center Court Schaumburg, IL 60195
<b>1.3 Date of Interview</b>	1/14/2004
<b>1.4 Remarks</b>	Main Focus w/ Jeff Galas. Additional Information from Scott Lee.
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	22 existing. By the end of February, they will have 26 signs and by the end of the construction year, they will have one more sign. Total of 27 by the end of this year.
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	Mainly 3 line x 20 and a couple that are 3 line x 21 chars. No scrolling. They are capable of 4 phases but they only use 2 most of the times.
<b>2.3 What future CMS deployment plans do you have?</b>	The Gateway System will look at a more robust way to integrate the messaging and interagency requests in a more automated fashion. They currently have 37 locations identified on a map of which they will have 22 existing currently.
<b>2.4 Primary Areas Deployed</b>	They are deployed on a 25 mile radius of downtown Chicago. They are all on the expressways and are a combination of outbound and inbound freeways.
<b>2.5 Controlling Agency</b>	Regular 5am-7pm Traffic System Center Operations. 24/7 Operations – by the dispatch center at the headquarters and an unmanned automatic computer.
<b>2.6 What is the main purpose of the CMS?</b>	<p>Display messages on:</p> <ul style="list-style-type: none"> <li>• Travel time (real-time) – they started displaying travel time only a month back</li> <li>• Congestion Limits – This is what they used to display before they switched to travel times. They do not display the congestion limits currently.</li> <li>• Real-time Incidents – Only when the incidents affect any of the lanes and they have lane closures due to the incident. If the incident is on the shoulder or if it's a stalled vehicle they do not post any messages on it.</li> <li>• Roadway Construction – Lane closures, road work, etc.</li> <li>• Weather Conditions affecting traffic</li> </ul>
<b>2.7 Where offered, what is the historical origin of providing travel time information?</b>	The Secretary of Transportation (Illinois) told the DOT to post travel time messages. This was mainly due to the fact that the Illinois Toll Authority has been posting travel times on their signs using their toll plazas and probe vehicles. The DOT is using their 2400 loop detectors and their ATMS system to generate the travel time information using algorithms. To calculate travel time, they cap off the segment speed at 55 miles per hour and use segments no longer than 5 miles. The Toll Authority is using segments of 10 to 15 miles and are currently working on improving their algorithms to provide accurate travel times.
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many</b>	<p><u>Travel Time</u>: Continuous for the past 1 month</p> <p><u>Homeland Security</u>: None so far</p>

events (for each type of application) have resulted in the use of CMS?	AMBER ALERT: 5 or 6 times
<b>4 Messaging - BASIS</b>	
4.1 What condition is occurring?	Travel Time: Default Homeland Security/Emergencies: Have not posted so far. AMBER ALERT: Child Abduction
4.2 What segment or region is impacted?	Travel Time: Currently 3 of the 7 expressways post travel times. They are working on the algorithm for the remaining freeways and should have them by the end of this month. Homeland Security/Emergencies: Entire system AMBER ALERT: Entire system
4.3 What outcome or driver response is desired	Travel Time: Information to avoid road rage, hopefully use diversion routes if the travel times are longer. Homeland Security/Emergencies: Stay out of downtown or the specified area. AMBER ALERT: Help find abducted child.
<b>5 Messaging – CONTENT</b>	
5.1 How is the message structured to maximize driver comprehension	Travel Time: Minimize phases, staff input and external input on formats. Try and provide it for key landmarks and interchanges. Homeland Security/Emergencies: None posted so far AMBER ALERT: 2 Phase message. 1 <sup>st</sup> phase flashes for 2 seconds and reads "Child Abduction". 2 <sup>nd</sup> Phase contains the car make, model, license plate (If known) and Call 911.
5.2 How is the message tailored to suit different sign types and environmental conditions?	Same for all.
5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?	Travel Time: Focus on Commuters, cover non-commuters when space and readability permit Homeland Security/Emergencies: For all groups of travelers AMBER ALERT: For all travelers.
5.4 Is the content automated or is it put together by an operator?	Travel Time: Automated Homeland Security/Emergencies: Operator AMBER ALERT: Pre-canned Message from the Library
5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?	Travel Time: Efforts to maintain general consistency with other data sources. The travel times are provided on the HAR, 800 dial in number, web page, and media. AMBER ALERT: The State Police sends the information to central headquarters.
5.6 What is the typical actual wording used on CMS	Travel Time: Travel time to (1 <sup>st</sup> Line) Downtown XX minutes, Sometimes Via Express XX minutes, Via Local XX minutes. AMBER ALERT: Child Abduction (1 <sup>st</sup> line), Make, model, color, license plate of car, and contact 911 (2 <sup>nd</sup> line)
5.7 Do you have any images you can share of CMS messaging applications?	Will try and send some pictures.
<b>6 Messaging – OPERATIONAL POLICIES</b>	
6.1 Whose authority is needed to initiate a message?	Travel Time: Computer - Automated Homeland Security/Emergencies: Traffic Systems center during regular hours and the dispatch center during other hours. AMBER ALERT: The Illinois State Police sends an e-mail alert or fax with the information and passes it through the central headquarters and everyone gets the message to post it on the signs.
6.2 What are the arrangements for posting, updating, and terminating a message?	Travel Time: Automated Homeland Security/Emergencies: Traffic Systems Center posts and terminates as necessary, if not the dispatch center. AMBER ALERT: State Police sends a fax or an e-mail alert letting them know that its time to take the message off.

<b>6.3 What is the process for inter-agency coordination?</b>	They are currently looking at setting up control centers in the state where other agencies can post messages on the signs. The prototype will be for 3 centers, the headquarters, the traffic systems center and one in Springfield. If everything goes smooth, they may expand it throughout the state.
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	<u>Travel Time:</u> Message queue either manual or automated is reviewed by staff. <u>Homeland Security/Emergencies:</u> 1 <sup>st</sup> priority is incident and traffic related incident. <u>AMBER ALERT:</u> If its during rush hour, the amber alert message will be posted the 1 <sup>st</sup> hour. During non-peak hours the message will be posted for 4 hours.
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	Nothing specific. But the rule and policy is that any message that is posted on the signs has to be "traffic related". They will not post any general messages. They get a lot of requests but they will only post the message if its affecting traffic or will affect traffic on certain segments.
<b>7.2 Are you using any ITS Standards?</b>	In new signs – NTCIP 1203. For message exchange there on-going testing relative to the C2C CORBA 'standard'
<b>7.3 Do you use pre-canned messages most of the time?</b>	No. But the travel time messages are automated.
<b>7.4 Are your CMS's linked to a regional system?</b>	In test mode only to the GCM Gateway. Future efforts will complete this.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	They have received only good feedback from the public and media.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	<ul style="list-style-type: none"> <li>• Stay away from travel times – unless you can provide them for small segments and unless its accurate. Make sure its not longer than 5 mile segment.</li> <li>• Keep all the messages "traffic" related.</li> <li>• Do not provide stale information. Make sure its spontaneous so that people look at it and respond to it.</li> </ul>
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	They can be addressed simultaneously but not in groups. They can be addressed one at a time.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	The GCM Corridor has an interagency DMS usage manual that covers the I-80 area near Indiana and includes contact information for other regional signs. Telephone calls where necessary.

# Texas – Transtar

<b>Name of Agency</b>	Houston TranStar – Texas DOT
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	<p>1. John Gaynor TxDOT 713-881-3060 E-mail: <a href="mailto:jgaynor@houstontranstar.org">jgaynor@houstontranstar.org</a></p> <p>2. Carlton Allen TxDOT Freeway Operations 713-881-3285 E-mail: <a href="mailto:callen@houstontranstar.org">callen@houstontranstar.org</a></p>
<b>1.2 Address</b>	
<b>1.3 Date of Interview</b>	1/15/04
<b>1.4 Remarks</b>	The responses are only for the signs operated by TxDOT – not METRO.
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	114 operated and maintained by TxDOT in the 6 county district. 42 maintained and operated by Houston METRO for their HOV and Park and Ride Lots.
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	3 line 15 character. No flashing or scrolling. Still have some NTCIP issues that are being worked out.
<b>2.3 What future CMS deployment plans do you have?</b>	25 more signs planned for installation. There is also a rural ITS initiative that will include another 13 signs (placement will be strategic locations on a 250 mile stretch of freeway –Houston to san Antonio)
<b>2.4 Primary Areas Deployed</b>	105 of them are on the freeways around the city of Houston. A few of them are on the corridor from Houston to Galveston (Hurricane Evacuation route and tourist route).
<b>2.5 Controlling Agency</b>	TranStar operates 24/7. METRO operates the signs on the HOV lanes. METRO is currently operating in “local” mode. When they need to put up a message on the sign, a contractor goes out to the field and inputs the message for the specific sign.
<b>2.6 What is the main purpose of the CMS?</b>	<p>Display messages on:</p> <ul style="list-style-type: none"> <li>• Real-time incidents</li> <li>• Construction</li> <li>• Travel Time - updated every 10 minutes</li> <li>• Tropical Storm Warnings and Emergency Weather Warnings (flooding, etc).</li> </ul>
<b>2.7 Where offered, what is the historical origin of providing travel time information?</b>	The travel time is calculated from the AVI transponders and toll tags. This travel time calculation started out as a manual process about 6 years ago. They thought that they would provide this additional information as a courtesy to the travelers. The manual basis for calculating the travel time took too much staff. They also had a “push” from management that they should not “blank” the signs. A survey was done by TTI during the manual calculation period to determine if the travelers saw the travel time information beneficial. They got an overwhelming response. Now for the past 1 year they have automated the system and the signs show travel time as default messages every 10 minutes.
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<p><u>Travel Time</u> – Default and automatic – every 10 minutes.</p> <p><u>Homeland Security</u> – None</p> <p><u>Emergencies</u> – Related to Weather, Flooding- only during severe weather emergencies.</p> <p>AMBER ALERT: 12 times</p>
<b>4 Messaging - BASIS</b>	

<p><b>4.1 What condition is occurring?</b></p>	<p><u>Travel Time:</u> Time, Route, and the current time when the travel time was reported.  <u>Homeland Security/Emergencies:</u> Emergency weather condition – only if its absolutely critical.  <u>AMBER ALERT:</u> Abducted Child. Also used the amber alert for the shuttle system debris (last year) –asking people to stay away from the debris.</p>
<p><b>4.2 What segment or region is impacted?</b></p>	<p><u>Travel Time:</u> The popular landmarks or routes  <u>Homeland Security/Emergencies:</u> Corridor specific  <u>AMBER ALERT:</u> Region wide</p>
<p><b>4.3 What outcome or driver response is desired</b></p>	<p><u>Travel Time:</u> Better decisions</p>
<p><b>5 Messaging – CONTENT</b></p>	
<p><b>5.1 How is the message structured to maximize driver comprehension</b></p>	<p><u>Travel Time:</u> Landmarks and main routes. Time of day the travel time is reported.</p>
<p><b>5.2 How is the message tailored to suit different sign types and environmental conditions?</b></p>	<p>Even though they have different signs, they are all operated from the same software. No environmental concerns.</p>
<p><b>5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?</b></p>	<p><u>Travel Time:</u> Commuters  <u>Homeland Security/Emergencies:</u> All groups  <u>AMBER ALERT:</u> All groups</p>
<p><b>5.4 Is the content automated or is it put together by an operator?</b></p>	<p><u>Travel Time:</u> Automated  <u>Homeland Security/Emergencies:</u> Manual input  <u>AMBER ALERT:</u> Manual Input</p>
<p><b>5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?</b></p>	<p><u>Travel Time:</u> Web Page (can see the messages on the Houston transtar web page). Also have the media located in the control room at transtar. Free e-mail subscription, pagers, cell phone, etc). Also sent to HAR.  <u>Homeland Security/Emergencies:</u> Media, web page, HAR. They will also contact the Harris County OEM to let them know that they are putting this information on the sign.  <u>AMBER ALERT:</u> Only to the signs. They will not send it to anyone else, except the Harris County OEM.</p>
<p><b>5.6 What is the typical actual wording used on CMS</b></p>	<p><u>Travel Time:</u> Travel Time  To XX route on XX Route  XX minutes at hh:mm</p> <p><u>AMBER ALERT:</u> Kidnapped Child  Vehicle Description  Licence Plate</p>
<p><b>5.7 Do you have any images you can share of CMS messaging applications?</b></p>	<p><u>Travel Time:</u></p> 
<p><b>6 Messaging – OPERATIONAL POLICIES</b></p>	
<p><b>6.1 Whose authority is needed to initiate a message?</b></p>	<p><u>Travel Time:</u> Automated  <u>Emergencies:</u> Texas DOT  <u>AMBER ALERT:</u> Austin (Capital). – The messages are sent from the State Police in Austin. They call TxDOT and tell them what message to put up.</p>
<p><b>6.2 What are the arrangements for posting, updating, and terminating a message?</b></p>	<p><u>Travel Time:</u> Automated.  <u>Homeland Security/Emergencies:</u> TxDot posts and terminates based on the situation.  <u>AMBER ALERT:</u> They receive a call from Austin to let them know that they can terminate message.</p>

<b>6.3 What is the process for inter-agency coordination?</b>	<u>Emergencies:</u> If another agency has an emergency, they call Transtar and the operators log in the information and post it once its verified. The Galveston police call Transtar to post messages in that area (corridor) when there is an accident or an emergency. <u>AMBER ALERT:</u> From the State Police only.
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	1. Real-time Incidents/Accidents 2. Construction, lane closed, road closed, etc, weather emergencies 3. Amber Alerts and Travel Times
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	Nothing written down. More of the training in operating the system. Austin does have an Amber Alert Policy that they use.
<b>7.2 Are you using any ITS Standards?</b>	NTCIP 1203
<b>7.3 Do you use pre-canned messages most of the time?</b>	Sometimes.
<b>7.4 Are your CMS's linked to a regional system?</b>	No. No one outside Transtar can operate the signs or display messages.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	Yes. They receive comments on their web page which TTI manages. They evaluate these messages often and its customer feedback that drove the travel time campaign.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	Not really. There are too many guidelines out there. Sometimes, less is more. They would like to see guidelines for weather emergencies.
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	Can select a group of signs and one at a time.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	During hurricane season, they coordinate with Louisiana to see if there are any road closures and what they need to put up on their signs. All coordination by phone currently.

# Texas – San Antonio (1)

Name of Agency	TxDOT
<b>1 General Information</b>	
1.1 Contact Name/s and Number/s	Brian Fariello 210-731-5247
1.2 Address	3500 NW Loop 410 San Antonio, TX 78229
1.3 Date of Interview	1/8/04
1.4 Remarks	
<b>2 Agency Characteristics and System Deployed</b>	
2.1 Number of CMS Deployed	150 message signs in the San Antonio area.
2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling	There are 3 types. 1 and only one has 3 lines, 15 characters per line, 18 inch. This is an unusual design. Some are 3 lines of 18, 18 inch characters. Frontage road signs: 2 lines, 12 characters per line, 8 inch characters. All of our signs have scrolling capabilities.
2.3 What future CMS deployment plans do you have?	We'll double our coverage, adding another 200 in the long term.
2.4 Primary Areas Deployed	Freeways in all areas of the city.
2.5 Controlling Agency	TxDOT controls the signs 24/7.
2.6 What is the main purpose of the CMS?	Display messages on: <ul style="list-style-type: none"> <li>• Travel time (real-time)- Yes</li> <li>• Construction - Yes.</li> <li>• Real-time incidents, etc? Yes - this is the main purpose.</li> </ul>
<b>3 Messaging – LEVEL OF USE</b>	
3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?	<u>Travel Time</u> : Daily 6am to 10pm every weekday. Updated every minute automatically. <u>Homeland Security/Emergencies</u> : No. <u>AMBER ALERT</u> : We just put one today. In the past 12 months, We've been on alert 11 times. But some of those were tests. Besides the tests and including the current AMBER Alert running, there have been 7 actual alerts.
<b>4 Messaging - BASIS</b>	
4.1 What condition is occurring?	<u>Travel Time</u> : Loops and detectors are gathering travel time data. <u>AMBER ALERT</u> : Child has been abducted by a non-parent. TxDOT's policy – when someone is reported kidnapped, there are a set of criteria. Alerts are initiated by the police department, then it goes to DPS in Austin, then they issue the alert. That alert goes to the local media, and one to the TxDOT office.
4.2 What segment or region is impacted?	<u>Travel Time</u> : TxDOT freeways in the San Antonio area. <u>AMBER ALERT</u> : They locate on a map the point of origin, and they will contact every district within 200 mile radius of the point of origin. Which gives us a working area of a 400 mile diameter.
4.3 What outcome or driver response is desired	<u>Travel Time</u> : We are very consistent in the messages; we're looking for the traveling public to come to expect the same structure. The interchanges used on the signs are the same every day. <u>AMBER ALERT</u> : We get a lot of response from drivers, because 911 is inundated with calls when there is a license plate number. You're looking for the effect – someone will see the alert and report the vehicle. But keep in mind not all recoveries are attributable to the signs. Our policy was developed under the Governor; the messages we display are out of our hands.

<b>5 Messaging – CONTENT</b>	
<b>5.1 How is the message structured to maximize driver comprehension</b>	<u>Travel Time</u> : Complete consistency in messages. Travel time to: Loop 410 is 5 minutes. No general messages that are not related. <u>AMBER ALERT</u> : Not sure exactly. The content is dictated by state policy, so we don't have input.
<b>5.2 How is the message tailored to suit different sign types and environmental conditions?</b>	<u>Travel Time</u> : We have smaller signs on frontage roads that can tell people immediate conditions. Environmental – if there is flooding or ice, we use the signs to give those conditions. <u>AMBER ALERT</u> : Same message no matter which sign.
<b>5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?</b>	<u>Travel Time</u> : Travel times are pretty specifically aimed towards the daily commuter, because out of area drivers won't know how to route around congestion. <u>AMBER ALERT</u> : These messages are aimed at everyone.
<b>5.4 Is the content automated or is it put together by an operator?</b>	<u>Travel Time</u> : Totally automated, except for the TMC operator that turns the system on at 6:00am and off at 10:00pm. Homeland Security/Emergencies: <u>AMBER ALERT</u> : We have preplanned scenarios. An operator gets the message, and activates a response. They do have to tailor the message of course with license plate numbers and a description of the vehicle.
<b>5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?</b>	<u>Travel Time</u> : Our travel times are available on the Transguide website ( <a href="http://www.transguide.dot.state.tx.us/index.php">http://www.transguide.dot.state.tx.us/index.php</a> ), message signs, radio, television stations, however in the case of radio and TV they are just reading from our website. We have no wireless devices, no pages. <u>AMBER ALERT</u> : We're part of the distribution chain. Department of Public Safety (DPS) notifies the radio stations and they begin to broadcast; television stations have a scroll at the bottom of the screen.
<b>5.6 What is the typical actual wording used on CMS</b>	<u>Travel Time</u> : TRAVEL TIME TO HUEBNER 5 – 7 MINS LP 410 8 – 10 MINS  <u>AMBER ALERT</u> : (Note: this is the wording of the AMBER alert running during the interview) Page 1: KIDNAPPED CHILD RED 91 FORD SUV CALL POLICE  Page 2: KIDNAPPED CHILD RED 91 FORD SUV LIC GA 730 YFV
<b>6 Messaging – OPERATIONAL POLICIES</b>	
<b>6.1 Whose authority is needed to initiate a message?</b>	<u>Travel Time</u> : TxDOT <u>AMBER ALERT</u> : DPS
<b>6.2 What are the arrangements for posting, updating, and terminating a message?</b>	<u>Travel Time</u> : They post automatically, and other scenarios such as incidents override them automatically. <u>AMBER ALERT</u> : DPS sends us a message to post, and sends an update when we can remove
<b>6.3 What is the process for inter-agency coordination?</b>	<u>Travel Time</u> : None <u>AMBER ALERT</u> : We are a link in the chain that begins with DPS.
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	<u>Travel Time</u> : We have 90 VMS used for AMBER Alerts. If an accident occurs on a freeway and lanes are closed or blocked, that is the top priority. Majority are still AMBER alerts. But an accident and road conditions are top priority. Ozone alerts same priority as travel times.
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	<u>Travel times</u> – An operator turns the system on in the morning, and it is automated until the system is turned off. The only variable is the actual travel time. It's not really driven by a set of guidelines; the process is automated. <u>AMBER ALERT</u> : We have a statewide AMBER Alert policy, directly from

	the office of the Governor.
<b>7.2 Are you using any ITS Standards?</b>	We are attempting to use as many as we can. Trying to incorporate NTCIP into CMS. We've been publishing local standards for years. Manufacturers of cameras have had to work with our protocol.
<b>7.3 Do you use pre-canned messages most of the time?</b>	
<b>7.4 Are your CMS's linked to a regional system?</b>	All information is brought back to the Transguide center in San Antonio. Statewide, no.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	We've done online surveys that have gotten us good feedback.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	<p>Don't use message signs for non-traffic related message such as "Drive safe and sober"</p> <p>I feel that I don't want to put a vehicle description at all if no license plate number. If a description goes out without a tag number, then the police get inundated with calls, as every person who sees a vehicle of the same description may call. In addition, you have the opportunity for someone to be a vigilante if they see that vehicle.</p>
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	All can be addressed simultaneously.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	Agreements with neighboring states are informal and rely on the relationships at a TMC supervisor level.

# Texas- San Antonio (2)

<b>Name of Agency</b>	Texas Department of Transportation
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	Patrick Irwin
<b>1.2 Address</b>	3500 NW Loop 410 San Antonio, TX 78229
<b>1.3 Date of Interview</b>	1/7/04
<b>1.4 Remarks</b>	
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	We have 2 types of signs: Those on frontage roads, and freeway signs. There is a total of 140 San Antonio.
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	TxDOT's signs have 2 lines, 12 characters, 12 inch, and can scroll to two pages.
<b>2.3 What future CMS deployment plans do you have?</b>	TxDOT hopes to deploy about 100 more miles in San Antonio. They are putting in some CMS in New Braunfels, a suburb of San Antonio 35 miles north on I-35. The agency is also planning two sets between San Antonio and Houston on I-10. Signs in both directions will let users know about conditions in Houston or San Antonio. TxDOT will also be supporting a newly opened system in Laredo. During off hours, Transguide will support that system because Laredo doesn't have the capacity to manage it during off hours.
<b>2.4 Primary Areas Deployed</b>	City freeway system; i.e. TxDOT freeway system. There are a few on a state highway that acts as an alternate parallel route to the freeway. Those signs are managed by the city, those signs are used sparingly. These signs have 2 lines, 8 characters, 8 inches, and scrolling capability.
<b>2.5 Controlling Agency</b>	Regular 8-5 Operations: 24/7 Operations: TxDOT in cooperation with city of San Antonio police dept, co-located at Transguide.
<b>2.6 What is the main purpose of the CMS?</b>	Display messages on: <ul style="list-style-type: none"> <li>• Frontage CMS: Provide information to travelers on the frontage roads about congestion, accidents, and closures so they can make a decision whether to enter freeway or bypass.</li> <li>• Freeway CMS: the purpose of these signs is to give traffic conditions.</li> <li>• When an incident is not present, or one of our solutions scenarios is not active, i.e. when the signs are not being used for traffic management, then from 6:00 am to 10:00pm they signs provide travel times.</li> <li>• AMBER Alerts</li> </ul>
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<u>Travel Time</u> : Daily for almost every sign we have. <u>Homeland Security/Emergencies</u> : None <u>AMBER ALERT</u> : About a dozen.
<b>4 Messaging - BASIS</b>	
<b>4.1 What condition is occurring?</b>	<u>Travel Time</u> : Regular traffic between 6:00am and 10:00pm. <u>Homeland Security/Emergencies</u> : N/A <u>AMBER ALERT</u> : Child abduction. We have a very strict set of rules, set by the Department of Public Safety (DPS). For instance the abduction can't be by a parent, as well as a few other specific criteria.
<b>4.2 What segment or region</b>	<u>Travel Time</u> : TxDOT Freeways.

is impacted?	<p>Homeland Security/Emergencies: N/A</p> <p><b>AMBER ALERT:</b> Not the entire network; only a 200 mile radius of the “last seen” area.</p>
4.3 What outcome or driver response is desired	<p><b>Travel Time:</b> Driver response is twofold. For the local traveler, the signs more or less tells him or her how to judge conditions, whether normal or abnormal. Gives the driver sufficient information to allow for intelligent alternate routing. For the non local driver, the signs are meant to give them good information as to the duration of the congestion ahead.</p> <p>Homeland Security/Emergencies: N/A</p> <p><b>AMBER ALERT:</b> We’ve had very good luck with the use of AMBER Alerts. A driver in San Antonio called in to report a vehicle that had in fact been sought in a child abduction.</p>
<b>5 Messaging – CONTENT</b>	
5.1 How is the message structured to maximize driver comprehension	<p><b>Travel Time:</b> Because we have a good network of detection devices; every half-mile on the freeways, we can get good accurate travel speeds. We list them by major intersections, an average of 2 – 3 miles apart. We provide travel time in a range of minutes. For instance we’ll say “under 5 minutes” or if the time is between 5 – 20 the signs will report “18-20 minutes.” You have to give a range to keep the nitpickers from calling in to let us know that it took 13 rather than 12 minutes to get from point A to point B.</p> <p>Homeland Security/Emergencies: N/A</p> <p><b>AMBER ALERT:</b> We will provide information on whether this is a male or female child abducted, by a male or female. We will then put a license number and description of the vehicle, and finally, call 911.</p>
5.2 How is the message tailored to suit different sign types and environmental conditions?	<p><b>Travel Time:</b> For all categories, the information has to be presented the same every time, for consistency. For those that cannot scroll, that is a problem.</p>
5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?	<p><b>Travel Time:</b> Aimed both at commuters and unfamiliar drivers, as mentioned earlier.</p> <p>Homeland Security/Emergencies: N/A</p> <p><b>AMBER ALERT:</b> Both.</p>
5.4 Is the content automated or is it put together by an operator?	<p><b>Travel Time:</b> Once our operators put it in by hand, the system is totally automated. It repeats information in an automated fashion.</p> <p><b>AMBER ALERT:</b> Content is manual, but we adhere to DPS guidelines.</p>
5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?	<p>Homeland Security/Emergencies: N/A</p> <p><b>AMBER ALERT:</b> Totally managed by DPS and they have the responsibility to coordinate with other agencies. We don’t have 511 in Texas. But, radio stations and other media also get the information.</p>
5.6 What is the typical actual wording used on CMS	<p><b>Travel Time:</b> Signs might read “Vehicle on right shoulder, use caution, freeway closed, major accident ahead.” There are between 200 and 300 messages in our library. We want our messages to be site specific. Generic messages tells the traveler what is going on overall. We found when we first started, we were telling motorists things like “right lane closed”. Motorists found it objectionable – they want to know why. Must create a sense of urgency so the motorist will comply with messages.</p>
<b>6 Messaging – OPERATIONAL POLICIES</b>	
6.1 Whose authority is needed to initiate a message?	<p><b>Travel Time:</b> TxDOT</p> <p>Homeland Security/Emergencies: N/A</p> <p><b>AMBER ALERT:</b> Authority rests with TxDOT in Ft. Worth. We all recognize that so our TMC engineer does not have to approve the posting of a message. We get a fax through, and enter the information specified.</p>
6.2 What are the arrangements for posting, updating, and terminating a message?	<p><b>Travel Time:</b> In the case of traffic events, once the event is canceled or another solution scenario is useful, that is automated. The system may suggest another solution.</p> <p><b>AMBER ALERT:</b> We get a follow-up fax from Ft. Worth advising us to remove or update the message.</p>
6.3 What is the process for inter-agency coordination?	<p><b>Travel Time:</b> We have public safety folks in our operations room. We support them and they know to the degrees to which we can do that. We</p>

	don't have extensive written interagency agreements here. We just cooperate; we have worked together since the late 60's.
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	<u>Travel Time</u> : Incidents override travel times. If a secondary, or smaller incident occurs, we will go back and forth between the two. be overwhelming from an operations standpoint.
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	We have an operator's handbook that describes our philosophy and operational procedures but nothing more specific than that.
<b>7.2 Are you using any ITS Standards?</b>	We are developing NTCP for our signs. And whichever standards are available with our statewide integrator, we are applying those as soon as is practical, according to our regional architecture.
<b>7.3 Do you use pre-canned messages most of the time?</b>	"Canned" message suggests it's not specific. We have a library of phrases, but we pay attention to where the event is and customize the information to be as relevant as possible.
<b>7.4 Are your CMS's linked to a regional system?</b>	They can be – we will soon have center-to-center communication; we are working it out with Dallas now. We do have the capability.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	Yes. People talk to us about not so much the text, but the accuracy of the travel times. In construction, when we may lose some speed detector systems, we have to do some manual interpretation. People sometimes call to let us know our travel times are not accurate. Overall, people tell us they are able to avoid congestion because of the messages.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	The most critical point in putting in these units is to make sure that your speed information is correct. Detectors must be placed with a degree of density that will allow you to get good travel times or travel speeds. CMS only conveys information, and that information must be accurate and timely. If it doesn't have value, then you have an expensive toy, and people see that. Those CMS are the window to the system; it's how we communicate critical information to the traveling public. On the technical side, you have to have an aggressive maintenance program to support that CMS. Certain bulbs may fade, certain transformers may not last as long,. FHWA should get maintenance supervisors together to share information. There should be a user's group, similar to peer to peer.
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	All three of these options are available.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	It is informal and cooperative. Neighboring states call and we'll help them. When center-to-center rolls in with El Paso and they've got something going on, we'll support that. Right now it's manual with AZTech in Phoenix, and New Orleans and other Louisiana cities.

# Texas – Austin

<b>Name of Agency</b>	Texas Department of Transportation
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	Charles Koonce
<b>1.2 Address</b>	125 East 11 <sup>th</sup> St. Austin, TX 787010
<b>1.3 Date of Interview</b>	1/20/04
<b>1.4 Remarks</b>	
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	I don't have the exact number, but there are more than 395 statewide, since that is the number of signs we use for AMBER Alerts. These are the large, fixed mount signs.
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	The number of lines varies. Typically there are 3 lines, 15 characters per line. Typically 18 inch characters.
<b>2.3 What future CMS deployment plans do you have?</b>	We have various projects ongoing.
<b>2.4 Primary Areas Deployed</b>	In Texas, all of the urban areas, Dallas, Ft. Worth, San Antonio, El Paso, Austin, Laredo, Amarillo, as well as a number of other areas.
<b>2.5 Controlling Agency</b>	24/7 Operations: TxDOT
<b>2.6 What is the main purpose of the CMS?</b>	Mainly incident management
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<u>Travel Time:</u> Daily <u>Homeland Security/Emergencies:</u> 0 <u>AMBER ALERT:</u> 5
<b>4 Messaging - BASIS</b>	
<b>4.1 What condition is occurring?</b>	<u>Travel Time:</u> Regular rush hour congestion in San Antonio. <u>AMBER ALERT:</u> Child abduction.
<b>4.2 What segment or region is impacted?</b>	<u>Travel Time:</u> San Antonio freeways <u>AMBER ALERT:</u> In Texas, when a statewide alert is issued through DPS, there is a 200 mile radius from the point of abduction. We determine from that point where we have signs within the radius.
<b>4.3 What outcome or driver response is desired</b>	<u>Travel Time:</u> Knowledge on the part of the daily commuter – information needed to make decisions regarding staying on the current route or taking an alternate route. <u>AMBER ALERT:</u> Identification of the suspect's car and a call to 911.
<b>5 Messaging – CONTENT</b>	
<b>5.1 How is the message structured to maximize driver comprehension</b>	<u>Travel Time:</u> Message is as concise as possible. <u>AMBER ALERT:</u> Needs to be concise and to the point. We limit it to 2 frames.
<b>5.2 How is the message tailored to suit different sign types and environmental conditions?</b>	The signs have an overbright mode for nighttime and adverse weather conditions
<b>5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?</b>	<u>Travel Time:</u> Aimed at all groups. <u>AMBER ALERT:</u> Everyone.
<b>5.4 Is the content automated or is it put together by an</b>	<u>Travel Time:</u> Automated <u>AMBER ALERT:</u> Mixed – we have scenarios. The description we receive

operator?	from law enforcement varies.
5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?	<u>AMBER ALERT</u> : The information goes out via HAR and local media.
5.6 What is the typical actual wording used on CMS	Travel Time: TRAVEL TIME TO I 35 5 – 7 MINS LP 410 8 – 10 MINS  <u>AMBER ALERT</u> : Kidnapped child is the first line on our AMBER alerts.
<b>6 Messaging – OPERATIONAL POLICIES</b>	
6.1 Whose authority is needed to initiate a message?	Travel Time: TxDOT <u>AMBER ALERT</u> : Texas Department of Public Safety
6.2 What are the arrangements for posting, updating, and terminating a message?	Travel Time: Automatically posted and terminated at the end of the day. <u>AMBER ALERT</u> : DPS contacts us at both conditions; to post and to remove an alert.
6.3 What is the process for inter-agency coordination?	Travel Time: None <u>AMBER ALERT</u> : We get a fax from DPS.
6.4 How are messages prioritized when multiple messages are desired?	<u>AMBER ALERT</u> : A huge incident that impacts traffic will take precedence over an AMBER Alert, but that is the only category for which this is true.
<b>7 OTHER</b>	
7.1 Do you have some guidelines that you currently use to display messages?	Our districts have consistent guidelines with DMS messaging techniques.
7.2 Are you using any ITS Standards?	NTCIP compliance is a provision in our contract when we purchase new signs.
7.3 Do you use pre-canned messages most of the time?	We have a list of scenarios from which to choose.
7.4 Are your CMS's linked to a regional system?	There are some that are connected between Dallas and Ft. Worth.
7.5 Have you received any feedback on the types, content, etc of messages from anyone?	Feedback is generally positive; people like travel times.
7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?	Yes. FHWA should establish some guidance regarding standardized message scenarios for AMBER alerts. Our first line reads kidnapped child, in other states it may be "Child Abduction" or "Amber alert" – there should be a standard.
7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?	All signs can be addressed simultaneously.
7.8 How do you handle coordination of messages with neighboring states?-	As needed. By phone usually. Our Amarillo TMC has been contacted by New Mexico regarding signs for inclement weather.

# Wisconsin – MONITOR

<b>Name of Agency</b>	Wisconsin DOT's Traffic Operations Center – MONITOR SYSTEM
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	Doug Dembowski 414-227-2149 414-227-2164 (fax)
<b>1.2 Address</b>	
<b>1.3 Date of Interview</b>	11/6/03
<b>1.4 Remarks</b>	
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	34 Permanent Signs Some Portable throughout the state – mainly for county maintenance crews.
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	Most of the signs are 3 line 21 character.
<b>2.3 What future CMS deployment plans do you have?</b>	Madison area is planning to implement 2 to 3 signs. When funding becomes available the Milwaukee area will also expand on the current coverage. Their original focus was to serve the commuters going into the downtown area. Future plans will concentrate on routes leaving the downtown area.
<b>2.4 Primary Areas Deployed</b>	Currently 21 or 22 on the freeways going into downtown Milwaukee. 13 signs on the arterials feeding into these main freeways.
<b>2.5 Controlling Agency</b>	<u>Regular Operations</u> - 5am to 7pm M-F. They have an on-call operator for after hours who has access to the system and can post messages. The Milwaukee County Sherrifs office also has control of the system. They don't post any messages on the signs.
<b>2.6 What is the main purpose of the CMS?</b>	Display messages on: <ul style="list-style-type: none"> <li>• Travel time (real-time)</li> <li>• Construction and Lane Closures</li> <li>• Real time incidents</li> <li>• Congestion Limits</li> <li>• Special Events</li> <li>• Amber Alerts</li> </ul>
<b>2.7 Where offered, what is the historical origin of providing travel time information?</b>	They have been collecting data from the loop detectors and providing travel time information on the internet on the congestion map. They tested and calibrated the data from the detectors for 3 or 4 years. After they were confident that the data was robust and accurate, they decided to display the information on the signs.
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<u>Travel Time</u> : - Daily – 24 Hours automated system. <u>Homeland Security/Emergencies</u> : None <u>AMBER ALERT</u> : 1
<b>4 Messaging - BASIS</b>	
<b>4.1 What condition is occurring?</b>	<u>Travel Time</u> : Freeway time in "x" minutes to downtown <u>AMBER ALERT</u> : Child Abduction – Tune to local radio
<b>4.2 What segment or region is impacted?</b>	<u>Travel Time</u> : Time in "x" minutes via different routes to downtown. <u>AMBER ALERT</u> : No detail information on segments
<b>4.3 What outcome or driver response is desired</b>	<u>Travel Time</u> : - Choose different routes based on the travel times. When there are multiple routes to arrive at a certain destination, the signs provide travel times via the different routes. <u>AMBER ALERT</u> : There were a lot of calls made to 911 when commuters

	were asked to tune to local radio, when the Amber Alert message was put out. They are planning to revise the policy and provide detailed information on the HAR, so that the commuters can tune into the HAR station for additional information.
<b>5 Messaging – CONTENT</b>	
<b>5.1 How is the message structured to maximize driver comprehension</b>	<u>Travel Time</u> : In the beginning, they went through a few variations for displaying travel time. They changed it to “freeway time” from “travel time”.
<b>5.2 How is the message tailored to suit different sign types and environmental conditions?</b>	Travel time information is provided only on the permanent signs. The portable signs have limitations.
<b>5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?</b>	<u>Travel Time</u> : Aimed mostly at commuters going into downtown.
<b>5.4 Is the content automated or is it put together by an operator?</b>	<u>Travel Time</u> : - Automated <u>Congestion Limits</u> – Manual <u>Incident and Special Events</u> – Manual & Automated (Message plans can be activated) <u>AMBER ALERT</u> : Manual
<b>5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?</b>	<u>Travel Time</u> : Public can access major travel routes and get travel time information on the web page. TV and Radio stations get travel time information. Also, Metro Traffic can view all the messages on the sign cause they are inside the firewall. In the future, the HAR will be automated with travel times.
<b>5.6 What is the typical actual wording used on CMS</b>	Will send.
<b>5.7 Do you have any images you can share of CMS messaging applications?</b>	Will send.
<b>6 Messaging – OPERATIONAL POLICIES</b>	
<b>6.1 Whose authority is needed to initiate a message?</b>	<u>Travel Time</u> : This is automated. During rush hours, there is a lead operator/control manager in the operations center. <u>AMBER ALERT</u> : The operators can post the amber alert messages once they receive it from Dane County 911 (clearinghouse). The only AMBER ALERT message they have posted was initiated through the on-call operator during after hours.
<b>6.2 What are the arrangements for posting, updating, and terminating a message?</b>	<u>Travel Time</u> : Automated – When the travel time changes by 2 minutes or more, it automatically updates. <u>AMBER ALERT</u> : The message is put up for 24 hours, unless they hear from Dane County to take the message off.
<b>6.3 What is the process for inter-agency coordination?</b>	There is currently no electronic coordination. A few of the major cities are planning to be on the same fiber network as the MONITOR system in the future.
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	Priority of Messages: <ul style="list-style-type: none"> <li>• Major Incident</li> <li>• Amber Alert</li> <li>• Minor Incident/Construction</li> <li>• Special Events</li> <li>• Travel Times</li> </ul>
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	Manual – MONITOR Operations Manual. Amber Alert Policy – being revised.
<b>7.2 Are you using any ITS Standards?</b>	No. The upgraded systems will be NTCIP compliant.
<b>7.3 Do you use pre-canned messages most of the time?</b>	Yes. Pre canned most of the time.

<b>7.4 Are your CMS's linked to a regional system?</b>	No.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	Yes. Some complaints that the message is too short or sometimes too long.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	A Best Practices sort of document will be useful.
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	Yes.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	They are a part of the GCM Corridor. If they get a call from the GCM operations center, they will put up a message.

# Georgia

Name of Agency	Georgia DOT
<b>1 General Information</b>	
1.1 Contact Name/s and Number/s	Mark Demidovich 404-635-8014
1.2 Address	Georgia Department of Transportation 935 East Confederate Ave Bldg. 24 Atlanta, GA 30316
1.3 Date of Interview	1/14/04
1.4 Remarks	
<b>2 Agency Characteristics and System Deployed</b>	
2.1 Number of CMS Deployed	93
2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling	Vast majority have 3 lines, 21 characters per line, two pages.
2.3 What future CMS deployment plans do you have?	70 more
2.4 Primary Areas Deployed	<ul style="list-style-type: none"> <li>• Metro Atlanta</li> <li>• Coastal areas of Georgia, used mainly for hurricane evacuation</li> <li>• Dalton</li> <li>• Macon</li> <li>• In Adel, a fog detection system - 4 signs there</li> </ul>
2.5 Controlling Agency	24/7 Operations: GDOT
2.6 What is the main purpose of the CMS?	Display messages on: <ul style="list-style-type: none"> <li>• Travel time (real-time)</li> <li>• Construction</li> <li>• Real-time incidents, etc?</li> </ul> All of the above. When there is no construction or incident, we post travel times.
<b>3 Messaging – LEVEL OF USE</b>	
3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?	<u>Travel Time</u> : Daily; hundreds of thousands of times in the past 12 months. <u>Homeland Security/Emergencies</u> : 0 <u>AMBER ALERT</u> : 6. 7 altogether since the beginning.
<b>4 Messaging - BASIS</b>	
4.1 What condition is occurring?	<u>Travel Time</u> : Normal traffic, or the absence of anything else <u>AMBER ALERT</u> : Child abduction
4.2 What segment or region is impacted?	<u>Travel Time</u> : Posted to a major downstream destination along the same freeway <u>AMBER ALERT</u> : Statewide by default.
4.3 What outcome or driver response is desired	<u>Travel Time</u> : Diversion if the travel time is high. A choice of alternate route. <u>AMBER ALERT</u> : Spotting the suspect's vehicle; using the information on the sign to help identify the vehicle.
<b>5 Messaging – CONTENT</b>	
5.1 How is the message structured to maximize driver comprehension	<u>Travel Time</u> : Top line: We give a downstream destination, for instance I-75 at Main St. Second line: how many miles ahead, Third line: Travel time: 9 – 11minutes.

	<p><u>AMBER ALERT</u>: Top line: Child abduction alert. Second line: Make and model of the car, toggled with tag number. Third line: call 911</p>
5.2 How is the message tailored to suit different sign types and environmental conditions?	<p><u>Travel Time</u>: There is no difference in signs or messages based on these conditions.</p> <p><u>AMBER ALERT</u>: Signs are built to the same specs regardless of where they're going. In GA, we don't have a hugely widely ranging climate. We do have the fog detection system, but the CMS used are not different.</p>
5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?	<p><u>Travel Time</u>: Commuters and anyone else traveling during rush hour.</p> <p><u>AMBER ALERT</u>: Everyone.</p>
5.4 Is the content automated or is it put together by an operator?	<p><u>Travel Time</u>: Completely automated</p> <p><u>AMBER ALERT</u>: An operator at our TMC will type in a message one time, then call our IT dept. They have a script that goes out onto all signs. We used to do it one by one, but that took forever, so the script now allows us to do it all at once. They're posted automatically, but the creation of the message is manual.</p>
5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?	<p><u>Travel Time</u>: Travel times are also available on our website. Our traveler information number (*DOT) isn't automated; it's answered by operators, and the operators have access to the info should a caller request it, although I've never heard of that happening.</p> <p><u>AMBER ALERT</u>: Information also goes onto our website, and to radio and TV stations.</p>
5.6 What is the typical actual wording used on CMS	<p>ROADWORK ON I-75 SB 6 MI S OF HARTLEY BR 1 RIGHT LANE CLOSED</p> <p>TRAVEL TIME FROM I-285 TO I-20 7-9 MIN TO 10<sup>TH</sup> ST. 11 – 13 MIN</p> <p>17<sup>TH</sup> ST OVERPASS 5 MI AHEAD TRAVEL TIME: 5-6 MIN</p> <p>AMBER ALERT: CHILD ABDUCTION ALERT WHITE FORD PCKUP / GA XXX-XXX CALL 911</p>
<b>6 Messaging – OPERATIONAL POLICIES</b>	
6.1 Whose authority is needed to initiate a message?	<p><u>Travel Time</u>: GDOT</p> <p><u>AMBER ALERT</u>: Comes from GMA; Georgia Emergency Management. They have been designated as official releaser of an AMBER alert; it cannot come from anywhere else. All local police work with this agency. The information comes via fax.</p>
6.2 What are the arrangements for posting, updating, and terminating a message?	<p><u>Travel Time</u>: They are turned on at 6:00am</p> <p><u>AMBER ALERT</u>: GMA sends the fax to post the message, then sends an update fax to cancel the message.</p>
6.3 What is the process for inter-agency coordination?	<p><u>Travel Time</u>: None</p> <p><u>AMBER ALERT</u>: Coordination takes place with GMA</p>
6.4 How are messages prioritized when multiple messages are desired?	<p><u>AMBER ALERT</u>: Anything that takes priority over an AMBER alert would have to be a very large incident with wide ranging impact. It would be decided on a case by case basis by the Supervisor at GDOT</p>
<b>7 OTHER</b>	
7.1 Do you have some guidelines that you currently use to display messages?	Guidelines are stated in our operations manual.
7.2 Are you using any ITS Standards?	Signs are built to NTCIP standards.

<b>7.3 Do you use pre-canned messages most of the time?</b>	Travel times, are basically canned since they're automated. Accident and roadwork messages are based on templates, but the details get filled in manually. The message looks the same, but the details change. In general canned messages make up about 80% of the text on our CMS.
<b>7.4 Are your CMS's linked to a regional system?</b>	Yes
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	<p>Travel times are very popular – we know this because when they're not running we get complaints.</p> <p>There is only negative regarding accident and event messages if there was no message up when there should have been. We've been in pretty good shape with the general public.</p> <p>To deal with the problem of a sign not being used, which people seem to be annoyed with, we have a bulb flash; we call it a heartbeat. This tells people the sign is working.</p> <p>We get a lot of suggestions, like posting signs that say things like "Buckle up for safety." As policy, we never put up general messages like these.</p>
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	<p>I'd like to see restrictions on those general messages. There should be a list of prohibited messages, or at least not recommended.</p> <p>I resist the push for FHWA to determine the message structure for the individual states. If we didn't match the mandated message structure, we'd have to make some big changes to our system. Our system is so automated, it would be a hassle to do updates necessary to comply with new restrictions. Also, we've trained our people here and hate to change it midstream.</p>
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	All or one by one. Not by regional groups.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	<p>We have an email alert system we've developed. Every state that touches us, and as far up to Virginia. It is simple and low tech, but effective. If you have an incident that would affect traffic in another state, every state in this group has an email address: <a href="mailto:incident@dot.state.(state).us">incident@dot.state.(state).us</a>. It bounces to several people for redundancy. If there is a major accident or anything likely to affect travel over state lines, the email asks please if you have the capability, advise motorists heading in our direction. We have used this several times.</p>

# California – Caltrans District 8

Name of Agency	Caltrans
<b>1 General Information</b>	
1.1 Contact Name/s and Number/s	Tom Ainsworth with Alan Kurst
1.2 Address	464 West 4 <sup>th</sup> St. San Bernardino, CA 924010
1.3 Date of Interview	1/22/04
1.4 Remarks	
<b>2 Agency Characteristics and System Deployed</b>	
2.1 Number of CMS Deployed	47 VMS in District 8, which is San Bernardino and Riverside
2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling	2 pages, 3 lines, 16 characters per line.
2.3 What future CMS deployment plans do you have?	Yes there are plans for more but sure of the exact number.
2.4 Primary Areas Deployed	VMS are deployed on freeways in urban areas, mainly around interchanges. We also have a few but also in rural areas like state and county lines.
2.5 Controlling Agency	24/7 Operations: Caltrans
2.6 What is the main purpose of the CMS?	Display messages on: <ul style="list-style-type: none"> <li>• Travel time (real-time)</li> <li>• Construction</li> <li>• Real-time incidents, etc?</li> </ul> <p>Advising motorists of road conditions.</p>
<b>3 Messaging – LEVEL OF USE</b>	
3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?	<p><u>Travel Time:</u> We have done it, but it's not a regular piece of information used. We have no automatic field devices; we had a pilot car running back and forth to report travel times into the TMC.</p> <p><u>Homeland Security/Emergencies:</u> None, except for a message regarding an extra delay at the airport due to vehicle inspections.</p> <p><u>AMBER ALERT:</u> 4 or 5. But when we first inaugurated the Plan in August 2002, we had 9 in one month.</p>
<b>4 Messaging - BASIS</b>	
4.1 What condition is occurring?	<u>AMBER ALERT:</u> Child abduction
4.2 What segment or region is impacted?	<u>AMBER ALERT:</u> All of the signs in our region are used, as long as there is not another priority need such as an incident.
4.3 What outcome or driver response is desired	<u>AMBER ALERT:</u> To be aware and call in. We've changed our response over time. Initially, law enforcement wanted people to call a specific number and that number was posted on the VMS. That was too much information; now we're down to one panel.
<b>5 Messaging – CONTENT</b>	
5.1 How is the message structured to maximize driver comprehension	<u>AMBER ALERT:</u> The message is conveyed in 1 page. We just say child abduction on the first line, then vehicle description on the second line, then the last line is used for state and license plate number. We don't say call 911. We used to use 2 panels to give a specific number. We are assuming that people will know to call 911.
5.2 How is the message tailored to suit different sign	<u>AMBER ALERT:</u> All our signs are the same in our district. In other districts, there are different kinds of signs; some have only 2 lines rather

types and environmental conditions?	than 3, so those districts had to modify how they post.
5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?	AMBER ALERT: All motorists.
5.4 Is the content automated or is it put together by an operator?	AMBER ALERT: It is put together by an operator. The only piece of canned information is "Child Abduction".
5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?	AMBER ALERT: When an AMBER Alert is issued, it's by CHP headquarters personnel. We don't put it up until directed. By that time, the CHP has already dealt with all other outlets for information.
5.6 What is the typical actual wording used on CMS	AMBER ALERT:  CHILD ABDUCTION WHITE TOYOTA SUV LIC # CA 123 ABC
<b>6 Messaging – OPERATIONAL POLICIES</b>	
6.1 Whose authority is needed to initiate a message?	AMBER ALERT: CHP
6.2 What are the arrangements for posting, updating, and terminating a message?	AMBER ALERT: CHP sends us a message via CAD and phone to post and to take the message down.
6.3 What is the process for inter-agency coordination?	AMBER ALERT: See 6.2; we get notification from CHP via CAD.
6.4 How are messages prioritized when multiple messages are desired?	AMBER ALERT:  1. Incidents 2. Weather 3. AMBER
<b>7 OTHER</b>	
7.1 Do you have some guidelines that you currently use to display messages?	Yes
7.2 Are you using any ITS Standards?	Signs are NTCIP compliant, but I don't know of any ITS standards for messaging.
7.3 Do you use pre-canned messages most of the time?	Usually the messages are input manually by an operator.
7.4 Are your CMS's linked to a regional system?	No. The ones in District 8 are controlled by District 8.
7.5 Have you received any feedback on the types, content, etc of messages from anyone?	We've gotten comments from the public regarding when they think we should and shouldn't use the signs. We monitor traffic at most of our sign locations via camera, in case they're creating more delay.
7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?	No.
7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?	To a degree. They can easily be addressed one at a time, but we can only control 20 signs at any one time. We go sequentially.
7.8 How do you handle coordination of messages with neighboring states?	On a limited basis. Nevada counterparts we've worked with them on messages for people on 15 – Vegas. Arizona. We work with our district counterparts when issues cross d lines.
	Getting the info down to a single page has worked out the best. At first we were running 6 lines with all sorts of info. Description fo the child, that doesn't do anyone any good.

# California – Caltrans Headquarters

<b>Name of Agency</b>	Caltrans (Headquarters)
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	Steve Boylov 916-654-3563
<b>1.2 Address</b>	Mail Station 36 1120 N St. Sacramento, CA 95826 36 mail stations
<b>1.3 Date of Interview</b>	1/23/04
<b>1.4 Remarks</b>	
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	554 permanent in CA Approximately 500 portable CMS
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	Most signs have 3 lines, 16 characters per line, 18 inch characters. Portable CMS have less capacity; 2 lines in most cases, usually 10 characters per line and 1 page.
<b>2.3 What future CMS deployment plans do you have?</b>	We have a master plan that will double the number we have now. We'd like to integrate TMS software that will allow us to use them all at once. We have in the state TMC's of different levels of sophistication.
<b>2.4 Primary Areas Deployed</b>	Urban and rural areas, but primarily in urban areas, and at or before major decision points such as freeway interchanges. Rural installations are few. But the rural signs are also deployed approaching major decision points such as mountain passes.
<b>2.5 Controlling Agency</b>	24/7 Operations: Caltrans
<b>2.6 What is the main purpose of the CMS?</b>	Display messages on: <ul style="list-style-type: none"> <li>• Travel time (real-time)</li> <li>• Construction</li> <li>• Real-time incidents, etc?</li> </ul> <p>Main purpose is motorist information, but the use depends on where the sign is. Mainly for weather information in some places, more often used for incidents in other places.</p>
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<u>Travel Time:</u> None <u>Homeland Security/Emergencies:</u> <ul style="list-style-type: none"> <li>• Over Christmas, we were asked to put up messages at airport locations. Those weren't universal, but there were a number that were posting some message about additional security. More portables were used for this than permanent. Use of CMS for this is relatively rare.</li> <li>• One other instance was when one of the jurisdictions was testing an alarm network, associated with a power plant. Using CMS for this was contrary to policy, but sometimes policy has to be overridden.</li> </ul> <p><u>AMBER ALERT:</u> Dozens every year.</p>
<b>4 Messaging - BASIS</b>	
<b>4.1 What condition is occurring?</b>	<u>AMBER ALERT:</u> Child abduction
<b>4.2 What segment or region is impacted?</b>	<u>AMBER ALERT:</u> It is regional. There is no centralized system that controls all CMS signs. CHP usually limits the alerts to regional notifications. There have been some statewide alerts, but in a state over 700 miles long, that is rare. The police generally have an idea where the suspect is headed – often the Mexican border. CHP has tried to work with

	us to limit it where the messages get posted.
<b>4.3 What outcome or driver response is desired</b>	<u>AMBER ALERT</u> : That the motorist help out as eyes and ears for law enforcement. So if they see a vehicle they think meets the description, they'd notify law enforcement.
<b>5 Messaging – CONTENT</b>	
<b>5.1 How is the message structured to maximize driver comprehension</b>	<u>AMBER ALERT</u> : Keeping it to one page. We work with law enforcement, trying to limit it to those alerts that are real. CHP tires to act as a filter on that so that not too many go out. Also we try to limit to an area that is likely to be of use.
<b>5.2 How is the message tailored to suit different sign types and environmental conditions?</b>	<u>AMBER ALERT</u> : <ul style="list-style-type: none"> <li>We have constraints on the portables, which don't have nearly as much capability. We put AMBER Alerts on some portables on a few isolated locations. These signs need to use more abbreviations.</li> <li>We'll take the AMBER Alerts off if we need the signs for traffic management, which is actually common during peak hours. We are supposed to have an agreement with CHP that we should only use signs for the first few hours, but we have not been successful. CHP is in charge, but we try to negotiate.</li> </ul>
<b>5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?</b>	<u>Homeland Security/Emergencies</u> : Of the few we've done, it's aimed at people going to the airport. <u>AMBER ALERT</u> : Everyone.
<b>5.4 Is the content automated or is it put together by an operator?</b>	<u>AMBER ALERT</u> : An operator enters the message.
<b>5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?</b>	<u>AMBER ALERT</u> : These days, there are many websites that mine our and CHP's data.
<b>5.6 What is the typical actual wording used on CMS</b>	<u>AMBER ALERT</u> :  CHILD ABDUCTION BLUE FORD PCKP LIC #  We have worked hard with law enforcement to avoid putting a phone number up. We want a single page message.  The very first one we had, we posted 911, and it was swamped. We don't want to put up local PD numbers, 800 numbers.
<b>6 Messaging – OPERATIONAL POLICIES</b>	
<b>6.1 Whose authority is needed to initiate a message?</b>	<u>AMBER ALERT</u> : Usually it begins with local police department, who contacts the CHP. We take our cue from CHP. CHP is responsible for the Emergency Broadcast System, of which CMS are not really a part.
<b>6.2 What are the arrangements for posting, updating, and terminating a message?</b>	<u>AMBER ALERT</u> : CHP officially has the authority to initiate, update and remove.
<b>6.3 What is the process for inter-agency coordination?</b>	<u>AMBER ALERT</u> : CHP notifies us via fax or CAD system.
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	<u>AMBER ALERT</u> : Incident and traffic management issues first AMBER Alert, usually not during peak hours, but it depends.
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	We have a CMS guidelines book. It is being revised currently; final draft is due in about 60 days. We want to help the op put up better messages.
<b>7.2 Are you using any ITS Standards?</b>	Everything technically meets the ITS protocols. We use type 170 controllers, which are our own.

<b>7.3 Do you use pre-canned messages most of the time?</b>	They are available for incident management, but operators enter much of the text as well.
<b>7.4 Are your CMS's linked to a regional system?</b>	Yes. They cannot be operated statewide from a central location.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	Yes. Feedback is usually positive. Occasionally not. We are our own toughest critics, so our own people will discuss what is a good message and what is not.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	<ul style="list-style-type: none"> <li>• Universal agreement on the terminology. Page, frame, panel; different jurisdictions call it something different.</li> <li>• Appropriate abbreviations. It's been limited in terms of the audience and the way it's done. The ways we do it now, doesn't benefit from any real on the road research, mostly lab research with students, which is a subset of the whole population out there. Should we use North, N, NB, what?</li> <li>• Guidelines regarding when messages should be posted. There should be some hard research about when we should put the messages up. Also, what messages are most effective? We think we know, but it's not based on hard research.</li> <li>• Message Design - should letters flash? Should we look to using colors, symbols? Travel times – how good does it need to be? How often, how much of an effort is it worth?</li> </ul> <p>In headquarters, it's not a problem for me to refuse public service organizations and the like to put up public service announcements. In districts, it's harder to refuse local organizations. The districts say, why not? Who makes the decision? Like fireworks – we put up a sign around July 4<sup>th</sup> about be careful with fireworks. One year, they asked me to put up a jingle. I didn't do it, but where do you draw the line?</p>
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	Statewide: No Regionally: All at once or one at a time
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	Informal. Local TMCs and dispatchers have knowledge and names of who to contact in neighboring states. Coordination is reasonably good. Most of the state lines are in isolated locations, so not a lot of signs anyway.

# California – Caltrans District 12

Name of Agency	Caltrans
<b>1 General Information</b>	
1.1 Contact Name/s and Number/s	Paul King TE (949)936-3410 (off), 949-279-9504 (cell)
1.2 Address	Caltrans District 12 Orange County TMC Operations Floor
1.3 Date of Interview	1/28/04
1.4 Remarks	
<b>2 Agency Characteristics and System Deployed</b>	
2.1 Number of CMS Deployed	51 signs total. 42 of them are operational. All permanent signs.
2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling	All of them are 16 character, 3 line.
2.3 What future CMS deployment plans do you have?	They do have some planned for the future. Not sure how many.
2.4 Primary Areas Deployed	All on freeways in the Orange county area.
2.5 Controlling Agency	24/7 Operations: The TMC operates 24/7.
2.6 What is the main purpose of the CMS?	<p>Display messages on:</p> <ul style="list-style-type: none"> <li>• Real-time Accidents/Incidents</li> <li>• Lane Closures</li> <li>• Amber Alert</li> <li>• Security Related – Deployed messages for the airport.</li> <li>• Travel time -future</li> </ul> <p>For travel time – The headquarters was studying the feasibility of providing travel times and checking to see if the detector system was capable of giving accurate data. They also had legal issues with some guy claiming that he has a patent on providing travel times on CMS. There is a feasibility paper that was published by UC Berkeley – trying to get a hold of this.</p>
<b>3 Messaging – LEVEL OF USE</b>	
3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?	<p>Travel Time: None</p> <p><u>Homeland Security/Emergencies</u>: Airport Security Checks - 2</p> <p><u>AMBER ALERT</u>: 4. Every single instance that they have put out the amber alert message, they have had success in the child being found. They do not put up any messages on Amber Alerts until it comes from ENTAC (a CHP function).</p>
<b>4 Messaging - BASIS</b>	
4.1 What condition is occurring?	<p><u>Homeland Security/Emergencies (airport)</u>: They only out these messages when 2 conditions occur:</p> <ul style="list-style-type: none"> <li>• National Threat level is orange</li> <li>• Airport Security informs them that there will be vehicle inspections.</li> </ul> <p><u>AMBER ALERT</u>: Child Abduction</p>
4.2 What segment or region is impacted?	<p><u>Homeland Security/Emergencies</u>: Only the signs that are on the access routes to the airport – region specific</p> <p><u>AMBER ALERT</u>: All areas – county wide</p>
4.3 What outcome or driver response is desired	<p><u>Homeland Security/Emergencies</u>: Avoid the closed airport access roads.</p> <p><u>AMBER ALERT</u>: Keep an eye out for the car</p>

<b>5 Messaging – CONTENT</b>	
<b>5.1 How is the message structured to maximize driver comprehension</b>	<p><u>Homeland Security/Emergencies</u>: They try and avoid putting out long messages. They want travelers to tune to the HAR for additional information.</p> <p><u>AMBER ALERT</u>: They have 2 templates and one of them is the same as the homeland security one – they ask the public to tune to the HAR for additional information. They did some interviews and surveys with general public and the one thing they realized is that people do not remember phone numbers. Out of the 50 responses they received, none of them remembered the phone number or all the digits of the license plate number. They place a strong emphasis on providing the STATE of the license plate along with other information.</p>
<b>5.2 How is the message tailored to suit different sign types and environmental conditions?</b>	N/A
<b>5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?</b>	<p><u>Homeland Security/Emergencies</u>:- All</p> <p><u>AMBER ALERT</u>: All</p>
<b>5.4 Is the content automated or is it put together by an operator?</b>	<p><u>Homeland Security/Emergencies</u>: Operator</p> <p><u>AMBER ALERT</u>: Operator</p>
<b>5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?</b>	<p><u>Homeland Security/Emergencies</u>: Goes to the HAR. Also the California Highway Information Network (CHIN) at headquarters will generate a message and put it out on the Internet and phone. The Emergency Disaster Alert System (EDAS) will also send out e-mail alerts and put messages on the internet.</p> <p><u>AMBER ALERT</u>: The TMC can put additional information on the HAR and its usually available on the Internet also.</p>
<b>5.6 What is the typical actual wording used on CMS</b>	<p><u>Homeland Security/Emergencies</u>: (airport)</p> <p style="text-align: right;">John Wayne Airport Vehicle Inspection Tune to 1620 AM</p> <p><u>AMBER ALERT</u>:</p> <p style="text-align: right;">CHILD ABDUCTION Description of Vehicle State of the Plate, License Plate Number</p>
<b>6 Messaging – OPERATIONAL POLICIES</b>	
<b>6.1 Whose authority is needed to initiate a message?</b>	<p><u>Homeland Security/Emergencies</u>: District TMC Lead person</p> <p><u>AMBER ALERT</u>: California Highway Patrol – ENTAC has to send the message and the details and then the TMC lead person.</p>
<b>6.2 What are the arrangements for posting, updating, and terminating a message?</b>	<p><u>Homeland Security/Emergencies</u>: The airport will call them and let them know that there are vehicle inspections. They put out appropriate messages based on how its going to affect traffic going into the airport.</p> <p><u>AMBER ALERT</u>: The ENTAC (CHP system) lets them know when to put up the message and when to take it off. The 4 times they have put it up,</p>
<b>6.3 What is the process for inter-agency coordination?</b>	<p><u>Homeland Security/Emergencies</u>: The airport security staff which is manned 24 hours calls them and coordinates the information.</p> <p><u>AMBER ALERT</u>: The Amber Alert information, once it has been confirmed by ENTAC comes through the CAD system log of CHP operations. The CHP dispatch center is co-located with the TMC operations.</p>
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	<ol style="list-style-type: none"> <li>1. Traffic and Incident Related Messaging</li> <li>2. Lane Closures, Construction</li> <li>3. Homeland Security, Amber Alerts</li> <li>4. Travel times (in the future)</li> </ol>
<b>7 OTHER</b>	
<b>7.1 Do you have some</b>	They are in the middle of completely redesigning their current guidance

<b>guidelines that you currently use to display messages?</b>	document. They embraced the TMC Pooled fund study Module 5. The guidance that they are working on (nearly complete) will be for the whole state.
<b>7.2 Are you using any ITS Standards?</b>	Yes. NTCIP 1203
<b>7.3 Do you use pre-canned messages most of the time?</b>	No. They do have some standards messages.
<b>7.4 Are your CMS's linked to a regional system?</b>	No.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	No.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	<ul style="list-style-type: none"> <li>- They are pleased to find out that the FHWA is working towards some standards on these types of messages,</li> <li>- They suggest that we look into and consider the guidelines that the expert Caltrans team has put together and provide us with some suggestions. This guidance will cover all messages for CMS and will cover both urbanized and rural areas.</li> </ul>
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	Simultaneously
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	N/A. Their district does not have any neighboring states.

# Oregon

<b>Name of Agency</b>	Oregon Department of Transportation
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	Galen McGill 503-986-4486
<b>1.2 Address</b>	ODOT Traf Man Section 355 Cap St. NE 5 <sup>th</sup> Fl Salem, OR 97301
<b>1.3 Date of Interview</b>	1/16/04
<b>1.4 Remarks</b>	
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	41
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	2 types of sign: 3 line, 18 character, 18 inch 3 line, 12 character, 12 inch. These are smaller signs, used on non-interstates. Both types are permanent signs. Both can display up to three panels.
<b>2.3 What future CMS deployment plans do you have?</b>	Another 4 or 5 under construction currently. There are more in the pipeline.
<b>2.4 Primary Areas Deployed</b>	Portland The rest are in key areas for winter weather such as mountain passes. They are placed in advance of key decision or turn-around points for closures.
<b>2.5 Controlling Agency</b>	24/7 Operations: ODOT
<b>2.6 What is the main purpose of the CMS?</b>	Display messages on: <ul style="list-style-type: none"> <li>• Travel time (real-time)</li> <li>• Construction</li> <li>• Real-time incidents, etc?</li> </ul> CMS are used for all of these; it depends on the sign and the location.
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<u>Travel Time</u> : Morning and evening rush and other special occasions. Homeland Security/Emergencies: None  <u>AMBER Alert</u> : 2
<b>4 Messaging - BASIS</b>	
<b>4.1 What condition is occurring?</b>	<u>Travel Time</u> : Regular morning and evening congestion. <u>AMBER Alert</u> : Child abduction
<b>4.2 What segment or region is impacted?</b>	<u>Travel Time</u> : Portland <u>AMBER Alert</u> : These alerts are posted to all signs simultaneously; statewide.
<b>4.3 What outcome or driver response is desired</b>	<u>Travel Time</u> : Ability for drivers to make decisions regarding alternate routes. <u>AMBER Alert</u> : Possible identification of suspect's car. <u>From the ODOT VMS Manual</u> : "The primary purpose of a VMS is to provide information for motorists to make rapid decisions in response to roadway, traffic, or adverse weather conditions.
<b>5 Messaging – CONTENT</b>	
<b>5.1 How is the message structured to maximize</b>	<u>Travel Time</u> : Travel times are given between key points; recognized points on the highway network. For example: "To Hwy 217 Interchange: X

driver comprehension	minutes. <u>AMBER Alert:</u> We don't give a description on CMS; we post a message advising there is an alert, and tune to local news radio.
5.2 How is the message tailored to suit different sign types and environmental conditions?	<u>Travel Time:</u> No difference. <u>AMBER Alert:</u> No difference. All signs are the same and messages are the same in areas of varying environmental conditions.
5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?	<u>Travel Time:</u> These messages are aimed at the commuter, but we don't want to leave people out. Incident messages apply to everyone. <u>AMBER Alert:</u> Everyone.
5.4 Is the content automated or is it put together by an operator?	<u>Travel Time:</u> We have message libraries. Everything is automated. Others are posted by an operator, but the choices come from a library. Operators do have the ability to create completely new messages if needed, but they need supervisor approval. <u>AMBER Alert:</u> Message library. They have guidelines.
5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?	<u>Travel Time:</u> Same people who put in the data that drives 511 and website – all coming from same source. <u>AMBER Alert:</u> No – not 511 nor website.
5.6 What is the typical actual wording used on CMS	TRAVEL TIME INFO VLY JCT – LINCOLN CTY xx MIN  AMBER ALERT TUNE RADIO TO LOCAL NEWS
<b>6 Messaging – OPERATIONAL POLICIES</b>	
6.1 Whose authority is needed to initiate a message?	<u>Travel Time:</u> ODOT <u>AMBER Alert:</u> 2 agencies are able to issue an alert: Oregon State Police, or Washington County Consolidated Communications Agency 911 center. Those agencies coordinate using a specific procedure – Law Enforcement Data system (LED)
6.2 What are the arrangements for posting, updating, and terminating a message?	<u>Travel Time:</u> The messages are posted daily during am and pm rush automatically. <u>AMBER Alert:</u> It should be displayed for no more than three hours, or until the AMBER Alert is called off, whichever occurs first.
6.3 What is the process for inter-agency coordination?	<u>Travel Time:</u> No interagency coordination; ODOT handles this and is the only agency posting these messages. <u>AMBER Alert:</u> One of the two agencies mentioned above alerts us via LED.
6.4 How are messages prioritized when multiple messages are desired?	AMBER Alert: From ODOT's VMS usage manual, message priority <i>typically</i> follows the following convention: <ul style="list-style-type: none"> <li>• Road and ramp closures and emergencies;</li> <li>• Incident or crash;</li> <li>• Construction or maintenance operations;</li> <li>• Adverse weather or environmental conditions</li> <li>• AMBER Alert</li> <li>• Traffic operations information associated with special events;</li> <li>• Travel time information;</li> <li>• Special public safety messages</li> </ul>
<b>7 OTHER</b>	
7.1 Do you have some guidelines that you currently use to display messages?	Sure – in that message guideline.
7.2 Are you using any ITS Standards?	Yes – NTCIP – all new signs are compliant. We are in the midst of finalizing a contract for portable CMS.
7.3 Do you use pre-canned messages most of the time?	
7.4 Are your CMS's linked to	Yes – we have statewide software so we can control that. That software

<b>a regional system?</b>	allows us to control any sign from the statewide system. Portland is linked into the ATMS system.
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	We found that public education was needed regarding travel times. At first, people were slowing down so much to read the signs, it was causing problems. So we stopped posting for awhile, and started again with a good media campaign, which made the situation better. We don't get a lot of direct feedback, other than when there is a direct problem. What little feedback we get is generally positive.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	No
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	Our new ones can be addressed all at once or one at a time. The legacy signs have their own application which you have to dial into individually. So there is a lag time for AMBER alerts on those signs.
<b>7.8 How do you handle coordination of messages with neighboring states?</b>	There is some coordination with California. We're building a sign in Idaho and working with them as far as traffic coming in to Oregon.

# Maryland – Maryland SHA CHART Program

<b>Name of Agency</b>	Maryland State Highway Authority (SHA) – CHART Program
<b>1 General Information</b>	
<b>1.1 Contact Name/s and Number/s</b>	Alvin Marquess Operations Manager Ph: 410-582-5677 a.marquess@sha.state.md.us
<b>1.2 Address</b>	7491 Connelley Drive Hanover, MD-21076
<b>1.3 Date of Interview</b>	1/29/04
<b>1.4 Remarks</b>	
<b>2 Agency Characteristics and System Deployed</b>	
<b>2.1 Number of CMS Deployed</b>	-60 Permanent Signs -40 Portable signs that have cell phone communications – lots more portable that are scattered around the state. -10 Portable + Permanent sites with power and electricity.
<b>2.2 Describe functionality of CMS, e.g. characters, lines, and scrolling</b>	Majority of the signs (permanent) one are 3 line 21 character and some of them are 3 line 18 character. Portable ones are 3 line 8 character.
<b>2.3 What future CMS deployment plans do you have?</b>	They have a business plan for the future that includes additional signs but due to budgetary constraints, they have put a hold on everything.
<b>2.4 Primary Areas Deployed</b>	All on Freeways – 1 or 2 exceptions.
<b>2.5 Controlling Agency</b>	24/7 Operations: SHA TMC operates 24 hours.
<b>2.6 What is the main purpose of the CMS?</b>	Display messages on: <ul style="list-style-type: none"> <li>• Traffic Information – Incidents</li> <li>• Delays</li> <li>• Congestion</li> <li>• Road Work</li> <li>• Weather Related Traffic Information</li> <li>• Amber Alerts</li> <li>• Security Messages</li> </ul>
<b>2.7 Where offered, what is the historical origin of providing travel time information?</b>	No travel time currently provided. They do not feel that their detectors are at a point where they can provide accurate data for travel time information.
<b>3 Messaging – LEVEL OF USE</b>	
<b>3.1 In the past 12 months, approximately how many events (for each type of application) have resulted in the use of CMS?</b>	<u>Homeland Security/Emergencies</u> : 2 ( everytime the national threat level is raised to ORANGE) <u>AMBER ALERT</u> : 7 times.
<b>4 Messaging - BASIS</b>	
<b>4.1 What condition is occurring?</b>	<u>Homeland Security/Emergencies</u> : Orange Threat Level nationally. <u>AMBER ALERT</u> : Child Abduction – very strict criteria.
<b>4.2 What segment or region is impacted?</b>	<u>Homeland Security/Emergencies</u> : Scatter it around – signs that are atleast 5 miles apart <u>AMBER ALERT</u> : All signs
<b>4.3 What outcome or driver response is desired</b>	<u>Homeland Security/Emergencies</u> : To raise public awareness and to be vigilant. <u>AMBER ALERT</u> : Look out for the car.

<b>5 Messaging – CONTENT</b>	
<b>5.1 How is the message structured to maximize driver comprehension</b>	<u>Homeland Security/Emergencies</u> : Keep it as short as possible – 1 page. <u>AMBER ALERT</u> : Try to keep it to 1 page – sometimes it goes to 2 pages when they have vehicle description.
<b>5.2 How is the message tailored to suit different sign types and environmental conditions?</b>	All their signs have the same fixed font size – permanent ones.
<b>5.3 Is the message aimed at commuters, unfamiliar drivers or other groups?</b>	<u>Homeland Security/Emergencies</u> : All groups <u>AMBER ALERT</u> : All groups
<b>5.4 Is the content automated or is it put together by an operator?</b>	<u>Homeland Security/Emergencies</u> : They have some pre-stored messages that are used as skeleton messages and they use the same one or modify it accordingly. <u>AMBER ALERT</u> : They have some pre-stored messages and they modify specific lines.
<b>5.5 How is the message coordinated with other information dissemination techniques, i.e. 511?</b>	<u>Homeland Security/Emergencies</u> : To HAR and the extensive web page (www.chart.state.md.us) <u>AMBER ALERT</u> : Same as above.
<b>5.6 What is the typical actual wording used on CMS</b>	<u>Homeland Security/Emergencies</u> : Report Suspicious Activity Call 1-800-492-TIPS  <u>AMBER ALERT</u> : CHILD AMBER ALERT Vehicle Description, License Plate # Call 911
<b>5.7 Do you have any images you can share of CMS messaging applications?</b>	Will try and send some screen captures of older messages that were posted.
<b>6 Messaging – OPERATIONAL POLICIES</b>	
<b>6.1 Whose authority is needed to initiate a message?</b>	<u>Homeland Security/Emergencies</u> : State Police gets notified and they call the SHA operations. <u>AMBER ALERT</u> : State Police notifies the SHA.
<b>6.2 What are the arrangements for posting, updating, and terminating a message?</b>	<u>Homeland Security/Emergencies</u> : They keep the security message up till the national threat level is reduced to below orange. <u>AMBER ALERT</u> : Usually for 3 hours unless they have been requested to keep it longer for certain reasons.
<b>6.3 What is the process for inter-agency coordination?</b>	For all messages – the whole state has 6 operations centers which have workstations and which display all the messages on all the signs. The operations centers have access to the signs and can change the messages based on the area.
<b>6.4 How are messages prioritized when multiple messages are desired?</b>	They have an automated priority criteria for the messages: <ul style="list-style-type: none"> <li>• Accident (if there are 2 accidents, then one will come on the first panel and the second will show up on the second panel).</li> <li>• Road Work and alternate routes</li> <li>• Congestion and Delays</li> <li>• Amber Alerts</li> <li>• Special Events</li> <li>• Homeland Security</li> <li>• General Safety Messages</li> </ul>
<b>7 OTHER</b>	
<b>7.1 Do you have some guidelines that you currently use to display messages?</b>	They have a guidelines book that is under revision. They mostly follow the FHWA guidelines and based their guidelines from that.
<b>7.2 Are you using any ITS Standards?</b>	Their new signs are all NTCIP compliant.
<b>7.3 Do you use pre-canned</b>	For the routine stuff.

<b>messages most of the time?</b>	
<b>7.4 Are your CMS's linked to a regional system?</b>	Its linked statewide
<b>7.5 Have you received any feedback on the types, content, etc of messages from anyone?</b>	From time to time they receive some feedback through their web site or sometimes travelers call them.
<b>7.6 Is there anything specific you would like to see in Guidelines that are being established by FHWA?</b>	Yes – Keep messages on the signs TRAVEL related.
<b>7.7 Can all signs be addressed simultaneously, in regional groups, or one at a time?</b>	Yes.
<b>7.8 How do you handle coordination of messages with neighboring states?-</b>	They are part of the I-95 Corridor Coalition – so they coordinate with Transcom (by phone) and with Pennsylvania. They also coordinate with Virginia pretty much on a day to day basis (all by phone currently).