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**FOR FURTHER INFORMATION CONTACT:** Mr. Robert Rupert, FHWA Office of Operations, (202) 366-2194, or via e-mail at [robert.rupert@dot.gov](mailto:robert.rupert@dot.gov); or, Mr. James Pol, U.S. DOT ITS Joint Program Office, (202) 366-4374, or via e-mail at [james.pol@dot.gov](mailto:james.pol@dot.gov). For legal questions, please contact Ms. Lisa MacPhee, Attorney Advisor, FHWA Office of the Chief Counsel, (202) 366-1392, or via e-mail at [atlisa.macphee@dot.gov](mailto:atlisa.macphee@dot.gov). Office hours for the FHWA are from 7:45 a.m. to 4:15 p.m., e.t., Monday through Friday, except Federal holidays.

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**A Brief Description of the Proposed Rule**

The FHWA proposes to require that each State establish a real-time

information program that would provide traffic and travel conditions reporting and support other efforts related to congestion relief. The provision of traffic and travel conditions reporting to other agencies and to travelers would enable agencies to communicate the operational characteristics within their State or metropolitan area. Such information would disclose the presence and severity of congestion and other travel impedances that limit traveler mobility and the efficient movement of goods.

These proposed regulations would not impose any requirement for a State to apply any particular technology, any particular technology-dependent application, or any particular business approach for establishing a real-time information program. States and other public agencies instead would be encouraged to consider any salient technology, technology-dependent application, and business approach options that yield information products consistent with the requirements set forth in this proposed rule. States will be encouraged to work with value added information providers to establish real-time information programs. Value added information providers presently and in the future will create information products for commercial use, for sale to a customer base, or for other commercial enterprise purposes. Based upon this proposed rule, such products could be derived from information from public sector sources in addition to the private sector's own capabilities for creating information content.

The FHWA proposes to require real-time information programs to be capable of delivering traffic and travel conditions on: traffic incidents that block roadway travel, roadway weather conditions, and construction activities affecting travel conditions. Those real-time information programs that deliver traffic and travel conditions for Metropolitan Areas exceeding a population of 1 million inhabitants also would provide travel times for highway segments.

The FHWA proposes to require general uniformity among the real-time information programs to ensure consistent service to travelers and to other agencies. The table below identifies the proposed traffic and travel condition categories and characteristics:

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**DEPARTMENT OF TRANSPORTATION**

**Federal Highway Administration**

**23 CFR Part 511**

[FHWA Docket No. FHWA-2006-24219]

RIN 2125-AF19

**Real-Time System Management Information Program**

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM); request for comments.

**SUMMARY:** Section 1201 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires the Secretary of Transportation (Secretary) to establish a Real-Time System Management Information Program that provides, in all States, the capability to monitor, in real-time, the traffic and travel conditions of the major highways of the United States and to share that data with State and local governments and with the traveling public. This proposed rule would establish minimum parameters and requirements for States to make available and share traffic and travel conditions information via real-time information programs.

**DATES:** Comments must be received on or before April 14, 2009. Late-filed comments will be considered to the extent practicable.

**ADDRESSES:** Mail or hand deliver comments to the U.S. Department of Transportation, Docket Management Facility, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, or fax comments to (202) 493-2251. Comments may be submitted

Category of information	Timeliness for delivery			
	Metropolitan areas (in minutes)	Non-metropolitan areas (in minutes)	Availability (in percent)	Accuracy (in percent)
Construction activities:				
Implementing or removing lane closures .....	10	20	90	85
Roadway or lane blocking traffic incident information .....	10	20	90	85
Roadway weather observation updates .....	20	20	90	85
Travel time along highway segments .....	10	NA	90	85

Further details are provided in this notice on how the FHWA determined these categories of information, the timeliness for delivery, availability, and accuracy in the Section-by-Section description. Readers of this notice are directed to the description for Section 511.309, "Provisions for traffic and travel conditions reporting" for the details.

The FHWA proposes to require that real-time information programs be established in two stages: First for reporting traffic and travel conditions along all Interstate highways in each State; second for reporting traffic and travel conditions along other Metropolitan Area, non-Interstate highways that sustain local mobility and that serve as diversion routes that alleviate congested locations.

The FHWA proposes that the establishment of the real-time information programs for reporting traffic and travel conditions along all Interstate highways in each State should be completed within two years. Therefore, the FHWA proposes to require a completion date of two years after publication of the final rule in the **Federal Register** to establish the real-time information program for traffic and travel conditions reporting on all Interstate highways.

Finally, the FHWA proposes to require that the establishment of the real-time information programs for reporting traffic and travel conditions along Metropolitan Area, non-Interstate highways be completed within 4 years of the date the final rule is published in the **Federal Register**. The selection of non-Interstate highways to be covered in a real-time information program will depend on factors determined by the local partners. The FHWA proposes to encourage selection criteria such as recurring or frequent congestion, utility for use as a diversion route, and susceptibility for other mobility and safety limiting impacts.

The FHWA requests comment on the proposed approach summarized above and described in detail below to monitor traffic and travel conditions in real-time, and on how such monitoring can make the most cost-effective use of

the limited resources available to the States. Further, the FHWA requests comment on the consideration, options, and use of information to account for the analysis of the balance between the benefits and cost of the proposed rule, as described in detail in the "Regulatory Cost Analysis of Proposed Rulemaking", available in the docket.

**Program Administration**

This proposed rule will be subject to the provisions set forth in § 1.36 of Title 23 of the Code of Federal Regulations which states, "[i]f the Administrator determines that a State has violated or failed to comply with the Federal laws or the regulations in this part with respect to a project, he may withhold payment to the State of Federal funds on account of such project, withhold approval of further projects in the State, and take such other action that he deems appropriate under the circumstances, until compliance or remedial action has been accomplished by the State to the satisfaction of the Administrator."

**Background**

In May 2006, the Department announced its *National Strategy to Reduce Congestion on America's Transportation Network* (the Congestion Relief Initiative), a bold and comprehensive national program to reduce congestion on the Nation's roads, rails, runways, and waterways.<sup>1</sup> The FHWA is concentrating on congestion relief by promoting a variety of technology and techniques, including: Tolling and Pricing; Public and Private Partnerships; Real-Time Traveler Information; Traffic Incident Management; Work Zone Mobility; and, Traffic Signal Timing. These efforts by the FHWA address many of the root

causes of recurring and non-recurring congestion.

At its most fundamental level, highway congestion is caused by the failure to develop mechanisms to efficiently manage use of existing capacity and expand capacity in locations where the benefits are the greatest. The ever increasing demands for the use of the nation's highways are severely imbalanced with the level of funding provided to maintain and construct new highways. For highway users, the phenomenon of demand outstripping supply ultimately manifests a cost upon individual travelers who have to bear increasing congestion. The price of highway travel (gas taxes, registration fees, etc.) currently bears little or no relationship to the cost of congestion. Put differently, the average rush hour driver pays out of pocket costs that do not reflect the true costs of the travel. As a result, the network gets swamped, vehicle throughput collapses, and the cost of congestion to all users grows rapidly.

In more immediate terms, congestion is caused by a number of additional factors, including traffic incidents, special events, weather, work zones, and poor signal timing. Various research studies conducted by the FHWA indicate that half of recurring congestion occurs because of bottlenecks, poor signal timing, and special events. The remainder is divided among non-recurring phenomena such as work zones, traffic incidents, and bad weather.

The purpose of the Real-Time System Management Information Program is to provide congestion relief by stimulating cooperation among State Departments of Transportation, other responsible agencies, and commercial entities to widen the accessibility of traffic and travel conditions information via real-time information programs. Travelers and transportation agencies increasingly will depend on traffic and travel conditions information, delivered by combinations of public and private

<sup>1</sup> Speaking before the National Retail Federation's annual conference on May 16, 2006, in Washington, D.C., former U.S. Transportation Secretary Norman Mineta unveiled a new plan to reduce congestion plaguing America's roads, rail, and airports. The National Strategy to Reduce Congestion on America's Transportation Network includes a number of initiatives designed to reduce transportation congestion. The transcript of these remarks is available at the following URL: <http://www.dot.gov/affairs/minetas051606.htm>.

information providers, to manage congestion.<sup>2</sup>

The value for a real-time information program to travelers is experienced at a personal level. Traffic and travel conditions information is “decision-quality” information that allows travelers to choose the most efficient mode, time of departure, and route to their final destination. This information should be easily accessed at a low cost in order to be useful to the average traveler. Timely and detailed information about traffic incidents, weather conditions, construction activities, and special events aid in improving travel time predictability, better choices, and reduced congestion.

The value for a real-time information program to transportation agencies would be greater control of system-wide transportation assets. Information collection and dissemination are critical for enabling public agencies to provide for efficient interstate movement of goods and to reduce the level of congestion commonly experienced in metropolitan areas. Thus, the minimum set of information that would be required in this proposed rule include:

- Construction activities affecting travel conditions, such as implementing or removing lane closures;
- Roadway or lane blocking traffic incident information;
- Updated roadway weather observations; and,
- Travel time information along highway segments in metropolitan areas.

This proposed rule results from the efforts of private industry, elected officials, and public officials to reduce congestion and the burden it places on travelers. The 109th Congress recognized the collaborative efforts to reduce congestion and directed the FHWA to provide congestion relief to American travelers.

Under the heading of “Congestion Relief,” section 1201 of SAFETEA-LU (Pub. L. 109-59, 119 Stat. 1144, Aug. 10, 2005) requires the Secretary of Transportation to establish a Real-Time System Management Information Program to provide, in all States, the capability to monitor, in real-time, the traffic and travel conditions of the major highways of the United States and to share that information to improve the security of the surface transportation system, to address congestion problems,

to support improved response to weather events and surface transportation incidents, and to facilitate national and regional highway traveler information. The purposes of the Real-Time System Management Information Program are to:

(1) Establish, in all States, a system of basic real-time information for managing and operating the surface transportation system;

(2) Identify longer range real-time highway and transit monitoring needs and develop plans and strategies for meeting such needs; and

(3) Provide the capability and means to share that data with State and local governments and the traveling public.

Section 1201(c)(1) of SAFETEA-LU states that as State and local governments develop or update regional intelligent transportation system (ITS) architectures, described in 23 CFR 940.9, such governments shall explicitly address real-time highway and transit information needs and the systems needed to meet such needs, including addressing coverage, monitoring systems, data fusion and archiving, and methods of exchanging or sharing highway and transit information. The FHWA envisions that States carrying out updates of regional ITS architectures would consider broadening the geographic coverage area for gathering and reporting traffic and travel conditions.

This NPRM does not pertain to subsections 1201(b) or 1201(c)(2) of the SAFETEA-LU, which address the establishment of data exchange formats. Data exchange formats shall be established to ensure that the data provided by highway and transit monitoring systems may be exchanged readily among State and local governments and information applications that communicate to the traveling public. The FHWA established these data exchange formats to satisfy the 2-year statutory deadline defined by SAFETEA-LU to complete this task. The SAFETEA-LU legislation establishes that States shall incorporate the data exchange formats established by the Secretary. The FHWA published data exchange formats and a technical memorandum describing the implementation and use of the data exchange formats in the **Federal Register** on October 15, 2007 (72 FR 58347) and on the FHWA Office of Operations Web site, available at URL: <http://www.ops.fhwa.dot.gov>.

#### May 2006 Request for Information

On May 4, 2006, the FHWA published a notice in the **Federal Register** (71 FR 26399) outlining some proposed

preliminary program parameters and seeking public comments on the proposed description of the Real-time System Management Information Program, including its outcome goals, definitions for various program parameters, and the current status of related activities in the States. The comments submitted in response to this notice were used to develop this proposed rulemaking.<sup>3</sup> We received a total of 44 comments to the docket, of which 22 of the submissions were from State Departments of Transportation (DOT’s). Responses also were received from representatives of the private sector and national associations.

Many of the State DOT’s that responded identified that they were capable of achieving many of the goals outlined in the notice by 2009, provided that there would be a phased approach for achieving key milestones. The public sector responses often cited funding limitations, budget and planning cycles, and the lack of data collection infrastructure as obstacles to fully achieving all of the program goals by a 2009 date. All of the private sector responses indicated that all of the stated objectives could be achieved by 2009 and perhaps sooner.

The private sector respondents generally believed that having the information on nearly every road, at least in urban areas, was a reasonable goal. Many State and local public sector respondents did support reporting of conditions along arterial highways, but preferred to define which ones locally. Respondents generally noted that rural and urban areas might have different needs for coverage. Several rural States noted that monitoring the National Highway System plus other limited access roadways would overwhelm their strained resources and would not necessarily improve the quality of the traffic and travel conditions reporting. One private sector respondent suggested using the same definition of “major highway” as the mapping industry.

There was general support for including travel times and speeds, as well as extent and degree of congested conditions in urban areas. Several rural States objected to the congestion requirement. Several States suggested adding expected duration for incidents, scheduled events, Homeland Security emergency notifications, maintenance work zones as well as construction work zones, hurricane evacuation, and terrorist acts. There was strong and

<sup>2</sup> Additional discussion on the extensibility of traffic and travel conditions information is provided in *Closing the Data Gap: Guidelines for Quality Advanced Traveler Information System (ATIS) Data* available at the following URL: [http://www.itsdocs.fhwa.dot.gov//JPODOCS/REPT\\_MIS/13580.html](http://www.itsdocs.fhwa.dot.gov//JPODOCS/REPT_MIS/13580.html)

<sup>3</sup> All comments received via the U.S. DOT Docket Management System or the Federal eRulemaking portal can be viewed at <http://www.regulations.gov>. The submitted comments can be retrieved via Docket No. 24219.

articulate opposition from States about including information on public transportation disruptions.

There was general support for the proposed definition of “real-time” for congestion, travel time, and lane blockage information. There was no consensus among the respondents concerning the proposed thresholds for timeliness and accuracy: Private sector respondents commonly suggested more stringent thresholds, some State agencies suggested weaker thresholds; some overall respondents agreed with the thresholds identified in the notice. Several respondents, including State DOTs, noted that a more stringent timeliness threshold (5 minutes or less) would be more useful to the public. A few State agencies and private sector organizations noted that they were already meeting and exceeding these proposed threshold requirements. A few States objected to the timeliness threshold requirements as inappropriate for rural areas. Several respondents noted that the timeliness threshold requirements imply either a fully automated system or a 24/7 staff, which is likely not available immediately in all areas of the country.

Overall the responses reflected reasonable support for the proposed scope of the program, with the acknowledgement that there were dissenting opinions on some details. Nearly all the respondents anticipated that the FHWA would propose a rule to establish a program to advance the level of traffic and travel conditions reporting available today. The FHWA is proposing this NPRM to exercise the authority established by Congress to provide for congestion relief and to support the Department’s Congestion Relief Initiative. This proposed rule enables various methods for mitigating the effects of recurring and non-recurring congestion by assisting agencies in providing 511 telephone-based traveler information; enhancing traffic incident management; improving work zone mobility; updating and coordinating traffic signal timing; and providing localized bottleneck relief.<sup>4</sup>

The comments that were received in the docket contributed substantially to this proposed rule in two key areas: program phasing and content requirements. The preference for a phased approach in achieving the program implementation milestones led to the two distinct dates proposed for establishing a real-time information

program: One deployment for all Interstates 2 years after the date the final rule is published in the **Federal Register**, the other for non-Interstate highways in metropolitan areas by 4 years from the date the final rule is published in the **Federal Register**. The FHWA viewed that the combined efforts of the public and private sectors could successfully achieve these proposed milestones. The FHWA noted the interest of many public sector respondents about their preference to select the routes for traffic and travel conditions reporting.

There was wide variability in the content requirements for traffic and travel conditions reporting, especially in selecting a threshold for disseminating information after it has been collected. The FHWA considered the responses in parallel with the types of information that are needed to provide congestion relief. Based on the comments, the focus of the information to be reported centered on non-recurrent events like construction/maintenance; road closures and major delays; major special events; and, weather and road surface conditions.<sup>5</sup>

#### **Transportation System Operations Enhancements Enabled by the Proposed Rule**

A critical factor in the ability of transportation managers to respond effectively to a wide variety of events and situations is the availability of information that conveys the operating status of transportation facilities in real-time. Through the availability of information that improves upon today’s geographic coverage, data accessibility, accuracy, and availability, transportation system operators would have the tools necessary to reduce congestion, facilitate incident management, and improve management of transportation systems assets.

Real-time information programs are proposed to be established so that States easily can exchange information on the real-time operational status of the transportation network with other States and with the private sector, value-added information market.<sup>6</sup> This cooperation

<sup>5</sup> These types of content are consistent with those documented in *Implementation and Operational Guidelines for 511 Services, v.3.0* (2005), available at the following URL: <http://www.deploy511.org/implementationguide.htm>. The guidelines were prepared by the 511 Deployment Coalition of the American Association of State Highway and Transportation Officials (AASHTO), ITS America, the American Public Transportation Association (APTA), and the USDOT to promote service consistency to help achieve a nationwide 511 system.

<sup>6</sup> The value-added information market creates products intended for commercial use, for sale to

and sharing of information could stimulate the dissemination of traffic and travel conditions that include Web or wireless access to route-specific travel time and toll information; route planning assistance using historical records of congestion by time of day; and communications technologies that gather traffic and incident-related data from a sample of vehicles traveling on a roadway and then publishing that information to travelers via mobile phones, personal digital assistants (PDAs), in-car units, or dynamic message signs.

The establishment of real-time information programs could enable the exchange of commonly applied information among public and private partners, which would stimulate national availability of travel conditions information. Real-time information programs could increase the available quantity of data for conditions prediction, expand commercial markets that broker information, provide validated and accurate data for performance measure development and reporting, and stimulate new information products that could not be achieved with present day methods.

The Real-Time System Management Information Program as described in the statute is focused upon making data available for a range of applications that benefit States and travelers. The proposed rule would implement that statute to provide a substantial foundation for the collection and gathering of data in a manner that would provide coherent use for other applications. The *511 Implementation and Operational Guidelines Version 3.0*<sup>7</sup> (2005) illustrate what detailed information from a real-time information program could be provided for other applications:

- **Location**—The location or portion of route segment where a reported item is occurring, related to mileposts, interchange(s) and / or common landmark(s).
- **Direction of Travel**—The direction of travel where a reported item is occurring.
- **General Description and Impact**—A brief account and impact of the reported item.
- **Days/Hours and/or Duration**—The period in which the reported item is “active” and possibly affecting travel.
- **Travel Time or Delay**—The duration of traveling from point A to

a customer base, or for other commercial enterprise purposes. The market may rely on information gathered by States, from other sources, or from the market’s own capabilities to create the information.

<sup>7</sup> Available at the following URL: <http://www.deploy511.org/implementationguide.htm>.

<sup>4</sup> Additional information about FHWA’s focus on congestion is available at the following URL: <http://www.fhwa.dot.gov/congestion/toolbox/index.htm>.

point B, a segment or a trip expressed in time (or delay a traveler will experience).

- Detours/Restrictions/Routing Advice—As appropriate, summaries of required detours, suggested alternate routes or modes and restrictions associated with a reported item.
- Forecasted Weather and Road Surface Conditions—Near-term forecasted weather and pavement conditions along the route segment.
- Current Observed Weather and Road Surface Conditions—Conditions known to be in existence that impact travel along the route segment.

The extent of the proposed rule would be solely the provision of real-time information, yet the outcomes possible through this program would also reach the business of the private sector and the public sector. The proposed rule itself is neither centered on a particular technology nor on a technology-dependent application. States establishing a real-time information program would be able to employ any solution chosen to make the information available. States and public agencies can enter into collaborative agreements with the private sector for establishing the program and gathering the data. States and public agencies could purchase value added information products from value added information providers. States and public agencies could apply combinations of these, and other, approaches to establish a successful real-time information program.

#### *Section-by-Section Discussion*

This NPRM proposes to incorporate a new, Part 511 to be titled Real-Time System Management Information Program.

#### *Section 511.301 Purpose*

The purpose of this part would be to implement the requirements of subsections 1201(a)(1); 1201(a)(2); and, 1201(c)(1) of SAFETEA-LU, which directs the Secretary to establish a Real-Time System Management Information Program that creates the capability in each State to monitor and collect, in real-time, the operational status of the transportation system network.

#### *Section 511.303 Policy*

Researchers working on a study on mobility considered the following question, “Are Traffic Congestion and/or Travel Reliability Getting Worse?” Their observations noted that “four years (2000 through 2003) of archived detector data in the Mobility Monitoring Program point to an overall national trend of steady growth in traffic congestion and decline in travel

reliability.”<sup>8</sup> The continued growth in congestion poses a burden on society by degrading quality of life, diminishing economic productivity, and jeopardizing personal safety.<sup>9</sup> The Real-Time System Management Information Program would become an asset for the Department as it advances the Congestion Relief Initiative. Promoting Operational and Technical Improvements is featured as one of the elements in the Departmental Congestion Initiative, stressing the need to improve operational performance, including providing better real-time traffic information to all system users.

In Subtitle B to the SAFETEA-LU, Congress directs the FHWA to improve the security of the surface transportation system, to address congestion problems, to support improved response to weather events and surface transportation incidents, and to facilitate national and regional highway traveler information. Section 1201 of SAFETEA-LU directs the Department of Transportation to establish a Real-Time System Management Information Program that establishes real-time monitoring of traffic and travel conditions of the major highways of the United States and to enable States to share that data with other governments and with the traveling public. The data used to craft traffic and traveler conditions information are extensible, which systems developers would apply towards enabling a range of applications that agencies and travelers use to make more effective decisions.

In the *Travel Time Data Collection Handbook*,<sup>10</sup> the FHWA documented that the availability of traffic conditions reporting offers data that are extensible for a broad array of uses:

#### **Planning and Design**

Develop transportation policies and programs  
Perform needs studies/assessments  
Rank and prioritize transportation improvement projects for funding

<sup>8</sup> Monitoring Urban Roadways in 2003: Current Conditions and Trends from Archived Operations Data, available at the following URL: <http://mobility.tamu.edu/mmp/FHWA-HOP-05-018/findings.stm>.

<sup>9</sup> Detailed facts and figures are provided on the FHWA Focus on Congestion Web site, available at the following URL: [http://www.fhwa.dot.gov/congestion/describing\\_problem.htm](http://www.fhwa.dot.gov/congestion/describing_problem.htm).

<sup>10</sup> Report No. FHWA-PL-98-035, published in 1998, is available at the following URL: <http://www.fhwa.dot.gov/ohim/timedata.htm>. The Travel Time Data Collection Handbook provides guidance to transportation professionals and practitioners for the collection, reduction, and presentation of travel time data. The handbook provides a reference for designing travel time data collection efforts and systems, performing travel time studies, and reducing and presenting travel time data.

Evaluate project-specific transportation improvement strategies  
Input/calibration for air quality/mobile source emission models  
Input/calibration for travel demand forecasting models  
Calculate road user costs for economic analyses

#### **Operations**

Develop historical travel time data base  
Input/calibration for traffic models (traffic, emissions, fuel consumption)  
Real-time freeway and arterial street traffic control  
Route guidance and navigation  
Traveler information  
Incident detection

#### **Evaluation**

Congestion management system/performance measurement  
Establish/monitor congestion trends (extent, intensity, duration, reliability)  
Identify congested locations and bottlenecks  
Measure effectiveness and benefits of improvements  
Communicate information about transportation problems and solutions  
Research and development

The utility of the information may extend to events of various breadths of impact and scale. The information that is conveyed via real-time information programs can be considered highly valuable for the coordination of response and recovery from no-notice events, such as industrial accidents and willful acts of destruction, as well as those events that stimulate large displacements of people and disruptions to goods movements, such as in the event of hurricanes. The real-time information program should be treated as an asset for the first responder community, the homeland security community, and the transportation community.

The FHWA does not propose to require a particular technology or methodology for use in establishing the real-time information program. Instead, the FHWA encourages States to consider all available and cost-effective approaches, including those that involve the participation of the value added information providers or other public-private partnership ventures.

#### *Section 511.305 Definitions*

This section proposes to include definitions for terms that have special significance to a proposal under the Real-Time System Management Information program.

The proposed definition for “Statewide incident reporting system” is the same that is listed in section 1201(f) of SAFETEA-LU.

**Section 511.307 Eligibility for Federal Funding**

The FHWA proposes to permit a State to use its National Highway System, Congestion Mitigation and Air Quality Improvement (CMAQ) program, and Surface Transportation Program Federal-aid program apportionments for activities related to the planning and deployment of real-time monitoring elements that advance the goals of the Real-Time System Management Information Program. The FHWA has issued policy guidance, available at [http://www.ops.fhwa.dot.gov/travelinfo/resources/ops\\_memo.htm](http://www.ops.fhwa.dot.gov/travelinfo/resources/ops_memo.htm), indicating that transportation system operations activities, such as real-time monitoring, are eligible under the major Federal-aid programs noted previously, within the requirements of the specific programs. State planning and research funds would also be available for activities relating to the planning of real-time monitoring elements.

Title 23, U.S. Code, section 120(a) provides for a 90 percent Federal share payable for projects providing traffic

and travel conditions reporting on the Interstate System. Only projects that provide traffic and travel conditions reporting on the Interstate highways are subject to this provision. The establishment of real-time information programs on non-Interstate highways is subject to an 80 percent Federal share payable, as provided under 23 U.S.C. 120(b).

**Section 511.309 Provisions for Traffic and Travel Conditions Reporting**

This section describes the proposed parameters and performance characteristics for States to establish effective traffic and travel conditions reporting capabilities. The parameters and performance characteristics were outlined in the notice published in the **Federal Register** on May 4, 2006 (discussed in more detail in the Background section). The responses to this notice were applied to define the proposed project parameters.

At a minimum, the proposed information categories for traffic and travel conditions reporting would include: construction activities affecting

travel conditions, such as implementing or removing lane closures; roadway or lane blocking traffic incident information; regularly updated roadway weather conditions; and, travel time along metropolitan area highway segments.

The responses to the May 2006 **Federal Register** notice indicated little preference for the provision of transit event information to be included with the other categories of traffic and travel conditions reporting. The FHWA requests and welcomes comments on the viability and practicality for including transit event information. Additionally, the FHWA requests and welcomes comments on whether transit event information should be explicitly identified as part of the final regulation to be codified in the Code of Federal Regulations.

The following table summarizes the proposed categories and criteria for the data. Also note that there are separate characteristics for traffic and travel conditions reporting in metropolitan areas and non-metropolitan areas.

Category of information	Timeliness for delivery			
	Metropolitan areas (in minutes)	Non-metropolitan areas (in minutes)	Availability (in percent)	Accuracy (in percent)
Construction activities:				
Implementing or removing lane closures .....	10	20	90	85
Roadway or lane blocking traffic incident information .....	10	20	90	85
Roadway weather observation updates .....	20	20	90	85
Travel time along highway segments .....	10	NA	90	85

The rationale for determining these proposed traffic and travel conditions characteristics is based upon responses to the request for comments notice dated May 2006, several research studies commissioned by FHWA and other transportation associations, and guidance documents published by the FHWA. The following paragraphs provide the details on how the FHWA determined that these characteristics are appropriate for the proposed rule.

The relationship between data accuracy and timeliness for delivery may be described as indirectly proportional: the longer the time-span for delivery the more accurate the data become. There are other contributing factors involved and the relationship does not hold true in every possible application. However, it is unmistakable that unambiguous and efficient data exchange depends on data quality. One way to ensure that data quality and data accuracy satisfy a minimum threshold is to perform validity checks to test if data have become corrupted from the time it

is created at the source location to the time it is received. Simply put, performing validity checks takes time.

Researchers who have studied the characteristics of metropolitan area information gathering have noted a wide variance in the timeliness characteristic.<sup>11</sup> “The time aggregation level varies widely, from 20 seconds in San Antonio to 15 minutes in several areas.” The timeliness characteristic in this proposed rule is most essential for reporting of travel time along highway segments in metropolitan areas. A common practice in many metropolitan areas is the point detection of speeds and volume, in which information is collected discreetly for one point along

<sup>11</sup> *Monitoring Urban Roadways in 2003: Current Conditions and Trends from Archived Operations Data*, available at the following URL: <http://mobility.tamu.edu/mmp/FHWA-HOP-05-018/data.stm>. The Mobility Monitoring Program is an effort by the FHWA to track and report traffic congestion and travel reliability on a national scale. The referenced document provides an analysis of archived traffic detector data, spanning 2000 through 2003, from nearly 30 cities.

the highway. Such an approach lends to preparing estimates of travel times along highway segments because of the lack of a spatial dimension in the original information gathering.

There are several contributing factors that led to the timeliness thresholds that the FHWA proposes in this rule: The wide array of traffic and travel conditions information gathering; the short life span of travel time information; the temporal variability in which many metropolitan areas gather information from source locations; the time needed to perform estimate calculations; and, the time needed to amass the data from other sources to perform adequate validity checks to ensure accuracy.

The FHWA proposes that metropolitan areas should be subject to a more stringent timeliness threshold than non-metropolitan areas. The basis for this is rooted in the results of several ITS Deployment Tracking Surveys that indicate growing sophistication in metropolitan area traffic and travel

conditions reporting.<sup>12</sup> Also, metropolitan areas are subject to congestion effects which can be measured through travel time and delay.

The FHWA proposes that non-metropolitan areas should satisfy a timeliness metric for information delivery threshold, yet such a threshold should consider the context of transportation operations in such locations. Non-metropolitan areas commonly feature fewer source locations for which traffic and travel conditions information are generated. The broader distances between the likely sources of information, the reduced availability of power and communications to convey source information, and the lower susceptibility to recurring congestion effects (e.g., poor signal timing, bottlenecks) justify a longer timeliness threshold. The timeliness threshold values for non-metropolitan areas in this proposed rule are oriented towards the movement of goods and for promoting the safety of travelers along the nation's Interstate highways.

It should also be noted that higher accuracy and more rapid availability of data likely will be needed to support complex operations such as High Occupancy Toll (HOT) operations and other congestion and value pricing applications. Additionally, States increasingly will rely on accurate performance measure data to determine the effectiveness of High Occupancy Vehicle (HOV) lanes for mitigating regional congestion. States should consider the data quality implications in advance of developing congestion management applications that rely upon data from various sources. Some States may consider the data gathering methods for specific transportation facilities such as dedicated HOT/HOV lanes, cordon area entry points, and other zones which may feature rigorous and complex data gathering mechanisms.

The FHWA believes that conveying travel times along highway segments would be valuable for a real-time information program. In a guidance document titled Travel Time Data Collection Report (Report FHWA-PL-98-035) the FHWA identifies the following broad characteristics for defining highway segments:

The segment lengths may vary depending upon the data collection technique, but should be no longer than the following general ranges:

- Freeways/Expressways: 1.6 to 4.8 km (1 to 3 mi)
- Principal Arterials: 1.6 to 3.2 km (1 to 2 mi)
- Minor Arterials: 0.8 to 3.2 km (1/2 to 2 mi)

The FHWA welcomes comments on the viability and practicality for using the above mentioned parameters as a guide for highway segment definition. Additionally, the FHWA welcomes comments on whether such parameters should be explicitly identified as part of the final regulation to be codified in the Code of Federal Regulations.

*Section 511.311 Real-Time Information Program Establishment*

This section proposes to require that every State establish a real-time information program for delivering traffic and travel conditions reporting along Interstate highways no later than 2 years after the date the final rule is published in the **Federal Register**. This section reiterates SAFETEA-LU section 1201(c)(1), requiring that updates to existing Regional ITS architectures shall conform to the National ITS Architecture<sup>13</sup> as described in 23 CFR 940. Furthermore, section 1201(c)(1) requires that updated Regional ITS architecture “address real-time highway and transit information needs and the systems needed to meet such needs” and include “methods of exchanging or sharing highway and transit information.” States would continue the current practice of providing the real-

time information through common Internet-based communications.

The FHWA anticipates that the capability exists to establish traffic and traveler information by the proposed completion date. There is ample evidence that traffic and travel conditions reporting exists that can be leveraged to establish the enhancements in this proposed rule. As of October 31, 2007, there were 40 active 511 systems<sup>14</sup> for delivering traveler information via telephony along with 29 co-branded 511 Web sites.<sup>15</sup> Several hundred information outlets spanning every State have been documented by the FHWA to illustrate a vibrant traveler information marketplace.<sup>16</sup>

The information types for non-metropolitan area traffic and travel conditions reporting are most often produced by individuals at the incident scene and construction site, and thus may be information produced by resources available in the present day. Updated weather conditions information commonly involves automated mechanisms to produce actionable observations. The FHWA, working with States and associations, continue to work collaboratively to produce information management tools that extend today's weather observation capabilities. The FHWA has preliminarily determined that the wealth of information sources that exist today make establishing the real-time information program within the proposed completion date feasible.

*Section 511.313 Metropolitan Area Real-time Information Program Supplement*

This section pertains to those Metropolitan Statistical Areas (MSAs) of 1 million inhabitants or more.<sup>17</sup> As of December 31, 2006, the MSAs that exceed the 1 million population threshold include the following 49 locations:

1	New York-Northern New Jersey-Long Island, NY-NJ-PA	18,323,002
2	Los Angeles-Long Beach-Santa Ana, CA	12,365,627
3	Chicago-Napeville-Joliet, IL-IN-WI	9,098,316
4	Philadelphia-Camden-Wilmington, PA-NJ-DE	5,687,147
5	Dallas-Fort Worth-Arlington, TX	5,161,544
6	Miami-Fort Lauderdale-Miami Beach, FL	5,007,564
7	Washington-Arlington-Alexandria, DC-VA-MD	4,796,183

<sup>12</sup> Based upon freeway miles with real-time traffic data collection technologies as described in the “National Trends” page of the ITS Deployment Statistics Web site, available at the following URL: <http://www.itsdeployment.its.dot.gov/Trendsgraph.asp?comp=FM>.

<sup>13</sup> The National ITS Architecture is a common framework for Intelligent Transportation Systems interoperability. The National ITS Architecture is maintained by the U.S. DOT and is available on the DOT Web site at <http://www.its.dot.gov>.

<sup>14</sup> Simply stated, 511 is an easy-to-remember 3-digit telephone number, available nationwide, that provides current information about travel conditions, allowing travelers to make better choices—choice of time, choice of mode of transportation, choice of route.

<sup>15</sup> Information on the deployment of 511 is available at the following URL: <http://www.deploy511.org>.

<sup>16</sup> Information on the 511 program is available at the following URL: <http://www.fhwa.dot.gov/trafficinfo/index.htm>.

<sup>17</sup> As defined in Table 3a of the “Ranking Tables for Population of Metropolitan Statistical Areas (Areas defined by the Office of Management and Budget as of June 6, 2003)”, available at the following URL: <http://www.census.gov/population/www/cen2000/phc-t29.html>.

8	Houston-Baytown-SugarLand, TX	4,715,407
9	Detroit-Warren-Livonia, MI	4,452,557
10	Boston-Cambridge-Quincy, MA-NH	4,391,344
11	Atlanta-Sandy Springs-Marietta, GA	4,247,981
12	San Francisco-Oakland-Fremont, CA	4,123,740
13	Riverside-San Bernardino-Ontario, CA	3,254,821
14	Phoenix-Mesa-Scottsdale, AZ	3,251,876
15	Seattle-Tacoma-Bellevue, WA	3,043,878
16	Minneapolis-St. Paul-Bloomington, MN-WI	2,968,806
17	San Diego-Carlsbad-San Marcos, CA	2,813,833
18	St. Louis, MO-IL	2,698,687
19	Baltimore-Towson, MD	2,552,994
20	Pittsburgh, PA	2,431,087
21	Tampa-St. Petersburg-Clearwater, FL	2,395,997
22	Denver-Aurora, CO	2,179,240
23	Cleveland-Elyria-Mentor, OH	2,148,143
24	Cincinnati-Middletown, OH-KY-IN	2,009,632
25	Portland-Vancouver-Beavertown, OR-WA	1,927,881
26	Kansas City, MO-KS	1,836,038
27	Sacramento-Arden-Arcade-Roseville, CA	1,796,857
28	San Jose-Sunnyvale-Santa Clara, CA	1,735,819
29	San Antonio, TX	1,711,703
30	Orlando, FL	1,644,561
31	Columbus, OH	1,612,694
32	Providence-New Bedford-Fall River, RI-MA	1,582,997
33	Virginia Beach-Norfolk-Newport News, VA-NC	1,576,370
34	Indianapolis, IN	1,525,104
35	Milwaukee-Waukesha-West Allis, WI	1,500,741
36	Las Vegas-Paradise, NV	1,375,765
37	Charlotte-Gastonia-Concord, NC-SC	1,330,448
38	New Orleans-Metairie-Kenner, LA	1,316,510
39	Nashville-Davidson-Murfreesboro, TN	1,311,789
40	Austin-Round Rock, TX	1,249,763
41	Memphis, TN-MS-AR	1,205,204
42	Buffalo-Niagara Falls, NY	1,170,111
43	Louisville, KY-IN	1,161,975
44	Hartford-West Hartford-East Hartford, CT	1,148,618
45	Jacksonville, FL	1,122,750
46	Richmond, VA	1,096,957
47	Oklahoma City, OK	1,095,421
48	Birmingham-Hoover, AL	1,052,238
49	Rochester, NY	1,037,831

In addition to the provisions of section 511.311, the State Departments of Transportation that correspond to the qualifying metropolitan areas would be required to deliver travel time information along Interstate highway segments throughout the entire metropolitan area. This section continues to propose a requirement to establish the real-time information program to deliver traffic and travel conditions reporting along the Interstate System highways within qualifying metropolitan areas no later than two years after the date the final rule is published in the **Federal Register**.

Section 511.313(d) proposes to require every State to identify routes of significance from among other non-Interstate highways that merit traffic and travel conditions reporting. States would apply existing coordination practices that are applied to make decisions concerning regional transportation system operations, management, and maintenance. Routes of significance would be identified by States, in consultation with the FHWA,

to identify non-Interstate highways that would be included in a metropolitan area real-time information program. Federally-funded, State and locally-funded, and privately-funded highways could be designated routes of significance. Other highways that apply tolling and variable end-user pricing could be designated routes of significance. It would be up to the discretion of the States to define the criteria for selecting routes of significance, however, States are encouraged to consider highway safety (e.g., crash rate, routes affected by environmental events), public safety (e.g., routes used for evacuations), economic productivity, and severity of congestion among the criteria. The FHWA proposes to require the State Departments of Transportation corresponding to the qualifying metropolitan areas to establish the real-time information program components for traffic and travel conditions reporting along the State-designated routes of significance within these

metropolitan areas no later than 4 years after publication of the final rule.

The rationale for determining the completion dates for Metropolitan Area traffic and travel conditions reporting is based upon responses to the request for comments notice dated May 2006, reported availability from States to the level of deployment of transportation operations applications, and research studies conducted by the FHWA and other organizations on operational challenges on the arterial highways that commonly serve as diversion routes away from congestion. The following paragraphs provide the details on how the FHWA determined that these time limits are appropriate for the proposed rule.

The FHWA anticipates that the capability exists in the largest metropolitan areas to establish traffic and traveler information by the proposed completion date. Deployment statistics collected by the FHWA from State and other public agencies illustrate substantial capabilities to perform traffic and travel conditions

reporting.<sup>18</sup> In 2005 there were 56 metropolitan areas out of 71 surveyed metropolitan areas that feature traffic and travel reporting capabilities, providing reporting coverage of over 6,500 miles of metropolitan area freeways. This figure corresponds to a 38 percent proportion of coverage of all 17,000 freeway miles contained within the 56 metropolitan areas known to have reporting features. There is ample evidence that traffic and travel conditions reporting exists today that can be leveraged to establish the enhancements in this proposed rule. The FHWA believes that the wealth of information sources that exist today enable Interstate reporting by the proposed completion date.

A separate completion date is proposed for establishing real-time information programs that extend geographic coverage to State selected highways. Many of the responses to the May 2006 Request for Comments indicated a desire for a phased approach in which States could establish broader geographic coverage. The responses also indicated that traffic and travel conditions reporting along non-Interstate highways may lack some key information characteristics, most notably travel time reporting. The FHWA recognizes that travel time reporting along non-Interstate highways and arterial highways can be challenging because of issues such as property access features, coordination with Interstate interchanges, and signalized intersection control. The FHWA also recognizes that metropolitan areas need to coordinate with a range of partners to agree upon additional non-Interstate highways that merit traffic and travel conditions reporting to serve a number of purposes, including providing a diversion route away from congestion. In this proposal, the FHWA estimates that the additional 24 months represents adequate time to determine the additional facilities and establishing the real-time information program for these locations.

#### *Section 511.315 Program Administration*

This section proposes that compliance with Part 511 will be monitored by the FHWA. The FHWA may decline to approve Federal-aid projects pursuant to 23 CFR 1.36 if a State fails to establish a real-time information program described in section 511.311 and section 511.313.

#### **Rulemaking Analyses and Notices**

All comments received before the close of business on the comment closing date indicated above will be considered and will be available for examination in the docket at the above address. Comments received after the comment closing date will be filed in the docket and will be considered to the extent practicable. In addition to late comments, the FHWA will also continue to file relevant information in the docket as it becomes available after the comment period closing date, and interested persons should continue to examine the docket for new material. A final rule may be published at any time after close of the comment period.

#### **Executive Order 12866 (Regulatory Planning and Review) and DOT Regulatory Policies and Procedures**

The FHWA has determined preliminarily that this action would be an economically significant rulemaking action within the meaning of Executive Order 12866 and would be a significant within the meaning of the U.S. Department of Transportation's regulatory policies and procedures. This rulemaking proposes provisions and parameters for States to implement real-time monitoring of the transportation system as mandated in section 1201 of SAFETEA-LU. The Real-Time System Management Information Program is a newly created and complex program, receiving no dedicated Federal funding. This action is considered significant because of the substantial State and local government, and public interest in the information products enabled through this program.

This proposed rule is not anticipated to adversely affect, in a material way, any sector of the economy. This proposed rulemaking sets forth provisions and parameters for State Departments of Transportation to implement on Interstate highways and maintain from 2010 until 2018 an effective Real-Time System Management Information Program, which will result in some cost impacts to States or Metropolitan Planning Organizations (MPOs). This period would reflect the establishment of real-time information programs plus a seven-year period of operation. The seven-year period of operation assumes that equipment and supporting material for the real-time information program is fully replaceable after the operational life cycle. The FHWA has conducted a cost analysis identifying each of the proposed regulatory changes that would have a significant cost impact for MPOs or State DOTs. This cost analysis is

included as a separate document, entitled "Regulatory Cost Analysis of Proposed Rulemaking," and is available for review in the docket. Based on the cost analysis, we propose an estimate that the net present value of the estimated costs and benefits through 2018 represents at least a \$1.8 Billion benefit to American travelers and taxpayers, corresponding to a benefit-cost ratio of 2.5. In addition, the State DOTs have the flexibility to use most other Federal highway dollars including Congestion Mitigation and Air Quality (CMAQ) program and Surface Transportation Program (STP) funds for real-time monitoring program implementation. Additionally, State Planning and Research (SPR) funds can be applied fully towards the planning of real-time monitoring projects.

The FHWA requests comments on the economic analysis of these proposed regulations including appropriateness of using the Georgia NavigAtor study in the "Regulatory Cost Analysis of Proposed Rulemaking" to estimate benefits. Comments, including those from the State DOTs, regarding specific burdens, impacts, costs, and cost-effective use of limited resources would be most welcome and would aid us in more fully appreciating the impacts of substantially increasing the real-time monitoring and reporting capabilities nationwide. FHWA requests comments from State DOT's and others regarding how they anticipate they will comply with these proposed regulations, including the technologies to be used and the estimated cost per center-line mile. Hence, we encourage comments on all facets of this proposal regarding its costs, burdens, and impacts.

#### **Regulatory Flexibility Act**

In compliance with the Regulatory Flexibility Act (Pub. L. 96-354, 5 U.S.C. 601-612) we have evaluated the effects of this proposed action on small entities. The FHWA has determined that States and MPOs are not included in the definition of small entity set forth in 5 U.S.C. 601. Small governmental jurisdictions are limited to representations of populations of less than 50,000. MPOs, by definition, represent urbanized areas having a minimum population on 50,000. The FHWA preliminarily certifies that this action would not have a significant economic impact on a substantial number of small entities.

#### **Unfunded Mandates Reform Act of 1995**

Section 202 of the Unfunded Mandates Reform Act of 1995 (UMRA) (Pub. L. 1041-4; 109 Stat. 48) requires

<sup>18</sup> The ITS Deployment Statistics Database Web site is available at the following URL: <http://www.itsdeployment.its.dot.gov>.

Federal agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by States, local, or tribal governments, in the aggregate, or by the private sector, of more than \$100 million annually (adjusted for inflation to \$136.1 million in 2007 dollars). Before promulgating a rule for which a written statement is needed, section 205 of the UMRA generally requires the agency to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objective of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows the agency to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the agency publishes with the final rule an explanation of why that alternative was not adopted.

The effects of this proposed rulemaking are discussed earlier in the preamble and in the "Regulatory Cost Analysis of Proposed Rulemaking" contained in the docket for this rulemaking. Because the proposed rule is neither centered on a particular technology nor on a technology-dependent application, these documents consider a number of alternatives and provide a number of technological choices, thereby offering broad flexibility to minimize costs of compliance with the standard. This NPRM proposes a phased approach and limits the content requirements for a real-time information system only to those needed to provide congestion relief. Additionally, while no new funding is available for this program, States and MPOs are afforded flexibility to use its National Highway System, CMAQ, and Surface Transportation Program Federal-aid apportionments for activities related to the planning and deployment of real-time monitoring elements that advance the goals of the Real-Time System Management Information Program. As such, the agency has provided a proposal that selects the most cost-effective alternative that achieves the objectives of the rulemaking. As noted above, the FHWA requests and welcomes comments on this benefit-cost analysis, providing the public input necessary to ensure the most cost-effective use of limited government resources.

#### Executive Order 13132 (Federalism)

This proposed action has been analyzed in accordance with the

principles and criteria contained in Executive Order 13132, and the FHWA has determined preliminarily that this proposed action would not have sufficient federalism implications to warrant the preparation of a Federalism assessment. The FHWA has also preliminarily determined that this proposed action would not preempt any State law or State regulation or affect the States' ability to discharge traditional State governmental functions. The FHWA contacted the National Governors' Association in writing about its determination. The National Governors' Association did not respond. The FHWA requests and welcomes comments on the Federalism implications of these proposed regulations.

#### Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, *et seq.*), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct, sponsor, or require through regulations.

The FHWA has determined that this proposed rule contains a requirement for data and information to be collected and maintained in the support of operational decisions that affect the safety and mobility of the traveling public related to information on construction activities, including implementing and removing lane closures; roadway or lane blocking traffic incident information; roadway weather observation updates; and, calculated travel times along highway segments. In order to streamline the process, the FHWA intends to request that the OMB approve a single information collection clearance for all of the data in this proposed regulation. The FHWA reminds potential respondents that the Real-Time System Management Information Program is a program that supports solely the collection of transportation system data, primarily through automated means, with the transportation system data available for other use. The proposed Real-Time System Management Information Program itself does not produce informational or reporting products that are required by the Department of Transportation or other entities in the Federal Government.

Respondents to this information collection include State Transportation Departments from all 50 States, Puerto Rico, and the District of Columbia. The FHWA estimates that 20 States presently do not appear to provide real-time information on a continual basis to the public or to other States using

conventional information dissemination technologies.<sup>19</sup> The FHWA estimates that a total of 175,200 burden hours per year would be imposed on these non-Federal entities to provide all the required information to comply with the proposed regulation requirements for real-time information programs.

Further, there are 32 States operating at least one 511 traveler information dissemination service that provide nearly all of the information categories identified in this proposed regulation.<sup>20</sup> The automated systems that gather the input for delivery for 511 also convey information via Dynamic Message Signs (DMS) for en-route travelers. The use of DMS is common for conveying travel time information messages. Based on known reports for 511 delivery services and for travel time messages on DMS<sup>21</sup> a more accurate calculation of the burden hours is possible. For all 32 States known to provide automated real-time traveler information: All 32 States provide construction activities information; all 32 States provide roadway incident information; 28 States provide roadway weather observations; and, 15 States provide travel time information on highway segments.

The estimated total burden to provide the additional information needed to attain full compliance with the proposed regulation includes 175,200 burden hours for States with no observable real-time information capability, plus 148,920 burden hours for States with real-time information capabilities to deliver travel time information, plus 35,040 burden hours for States with real-time information capabilities to deliver weather observation updates. The total estimated burden therefore is 359,160 hours for automated sources to deliver the information categories identified in this proposed regulation.

The FHWA is required to submit this proposed collection of information to OMB for review and approval, and accordingly, seeks public comments. Comments are requested regarding any aspect of these information collection requirements, including, but not limited

<sup>19</sup> Based upon the table "Freeway Miles Under Traffic Surveillance" from the 2005 Metropolitan Summary survey. This table is retrievable from the ITS Deployment Statistics Web site, available at the following URL: <http://www.itsdeployment.its.dot.gov/Results.asp?year=2005&rpt=M&filter=1&ID=307>.

<sup>20</sup> Based upon the document titled, "Profiles of Traveler Information Services Update 2008," available at the following URL: [http://www.fta.dot.gov/documents/2008\\_511\\_Profiles.pdf](http://www.fta.dot.gov/documents/2008_511_Profiles.pdf). As of July 2008 there are 41 known 511 systems in operation.

<sup>21</sup> Based on the page "Travel times on DMS Status," available at the following URL: <http://ops.fhwa.dot.gov/travelinfo/dms/index.htm>.

to: (1) The accuracy of the estimated burden; (2) ways to enhance the quality, utility and clarity of the collected information; and, (3) ways to minimize the collection burden without reducing the quality of the collected information.

#### National Environmental Policy Act

The agency has analyzed this proposed action for the purpose of the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4347) and has determined that the establishment of the Real-Time System Management Information Program, as required by the Congress in SAFETEA–LU, may yield a \$384 million benefit from the reduction of greenhouse gas emissions and also from reductions of fuel consumption<sup>22</sup> and has determined preliminarily that this rule will not significantly affect the quality of the human environment. The promulgation of regulations has been identified as a categorical exclusion under 23 CFR 771.117(c)(20).

#### Executive Order 12630 (Taking of Private Property)

The FHWA has analyzed this proposed rule under Executive Order 12630, Governmental Actions and Interface with Constitutionally Protected Property Rights. The FHWA does not anticipate that this proposed action would affect a taking of private property or otherwise have taking implications under Executive Order 12630.

#### Executive Order 12988 (Civil Justice Reform)

This action meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

#### Executive Order 13045 (Protection of Children)

We have analyzed this proposed rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. The FHWA certifies that this proposed action would not cause any environmental risk to health or safety that might disproportionately affect children.

#### Executive Order 13175 (Tribal Consultation)

The FHWA has analyzed this action under Executive Order 13175, dated November 6, 2000, and believes that the proposed action would not have

substantial direct effects on one or more Indian tribes; would not impose substantial direct compliance costs on Indian tribal governments; and would not preempt tribal laws. The proposed rulemaking addresses provisions and parameters for the Real-Time System Management Information Program and would not impose any direct compliance requirements on Indian tribal governments. Therefore, a tribal summary impact statement is not required.

#### Executive Order 13211 (Energy Effects)

We have analyzed this proposed action under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use dated May 18, 2001. We have determined that the proposed rule is not a significant energy action under that order since it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Therefore, a Statement of Energy Effects is not required.

#### Executive Order 12898 (Environmental Justice)

Executive Order 12898 requires that each Federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minorities and low-income populations. The FHWA has preliminarily determined that this proposed rule does not raise any environmental justice issues. The FHWA requests comment on this assessment.

#### Regulation Identification Number

A regulation identification number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

#### List of Subjects in 23 CFR Part 511

Grant programs—transportation, Highway traffic safety, Highways and roads, Transportation, Travel, Travel restrictions.

Issued on: January 6, 2009.

Thomas J. Madison, Jr.,  
Federal Highways Administrator.

In consideration of the foregoing, the FHWA proposes to add a new part 511,

to Title 23, Code of Federal Regulations, to read as follows:

### PART 511—REAL-TIME SYSTEM MANAGEMENT INFORMATION PROGRAM

#### Subpart A—[Reserved]

#### Subpart B—[Reserved]

#### Subpart C—Real-Time System Management Information Program

Sec.

511.301 Purpose.

511.303 Policy.

511.305 Definitions.

511.307 Eligibility for Federal Funding.

511.309 Provisions for traffic and travel conditions reporting.

511.311 Real-time information program establishment.

511.313 Metropolitan area real-time information program supplement.

511.315 Program administration.

**Authority:** Section 1201, Pub. L. 109–59; 23 U.S.C. 315; 23 U.S.C. 120; 49 CFR 1.48.

#### Subpart A—[Reserved]

#### Subpart B—[Reserved]

#### Subpart C—Real-Time System Management Information Program

##### § 511.301 Purpose.

The purpose of this part is to establish the provisions and parameters for the Real-Time System Management Information Program. This regulation provides the provisions for implementing Subsections 1201(a)(1), (a)(2), and (c)(1) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA–LU) (Pub. L. 109–59; 119 Stat. 1144), pertaining to Congestion Relief.

##### § 511.303 Policy.

This regulation establishes the provisions and parameters for the Real-Time System Management Information Program so that State Departments of Transportation, other responsible agencies, and partnerships with other commercial entities can establish a real-time information program that secures accessibility to traffic and travel conditions information to other public agencies, the traveling public, and to other parties who may deliver value added information products on a fee-for-service basis.

##### § 511.305 Definitions.

Unless otherwise specified in this part, the definitions in 23 U.S.C. 101(a) are applicable to this subpart. As used in this part:

*Accessibility* means the relative ease with which data can be retrieved and

<sup>22</sup> This estimated benefit is documented in Table 1 on Page 14 of the *Regulatory Benefit-Cost Analysis of Proposed Rulemaking* included in this docket.

manipulated by data consumers to meet their needs.

*Accuracy* means the measure or degree of agreement between a data value or set of values and a source assumed to be correct.

*Availability* means the degree to which data values are present in the attributes (e.g., volume and speed are attributes of traffic) that require them. Availability is typically described in terms of percentages or number of data values.

*Congestion* means the level at which transportation system performance is unacceptable due to excessive travel times and delays.

*Coverage* means the degree to which data values in a sample accurately represent the whole of that which is to be measured.

*Data quality* means the fitness of data for all purposes that require such data.

*Metropolitan Areas* means the geographic areas designated as Metropolitan Statistical Areas by the Office of Management and Budget in the Executive Office of the President with a population exceeding 1,000,000 inhabitants.

*Real-time information program* means creating the methods by which States gather the data necessary for traffic and travel conditions reporting. Such means may involve State-only activity, State partnership with commercial providers of value added information products, or other effective means that enable the State to satisfy the provisions for traffic and travel time conditions reporting stated in this Subsection.

*Statewide incident reporting system* means a statewide system for facilitating the real-time electronic reporting of surface transportation incidents to a central location for use in monitoring the event, providing accurate traveler information, and responding to the incident as appropriate. This definition is consistent with Public Law 109-59; 119 Stat. 1144, Section 1201(f).

*Timeliness* means the degree to which data values or a set of values are provided at the time required or specified.

*Traffic and travel conditions* means the characteristics that the traveling public experiences. Traffic and travel conditions include the following characteristics:

(1) Road or lane closures because of construction, traffic incidents, or other events;

(2) Roadway weather or other environmental conditions restricting or adversely affecting travel;

(3) Extent and degree of congested conditions, (e.g., length of roadway experiencing stop-and-go or very slow,

prevailing speed of traffic less than half of speed limit); and

(4) Travel times or speeds on limited access roadways in metropolitan areas that experience recurring congestion. Traffic and travel conditions may report predicted conditions in addition to the real-time conditions.

*Validity* means the degree to which data values fall within the respective domain of acceptable values.

*Value added information products* means crafted products intended for commercial use, for sale to a customer base, or for other commercial enterprise purposes. These products may be derived from information gathered by States. These products may be created from other party or proprietary sources. These products may be created using the unique means of the value added information provider.

#### **§ 511.307 Eligibility for Federal funding.**

Subject to project approval by the Secretary, a State may obligate funds apportioned to the State under Title 23 United States Code sections 104(b)(1), also known as National Highway System funds, 104(b)(2), also known as Congestion Mitigation and Air Quality funds, and 104(b)(3), also known as Surface Transportation Program funds, for activities relating to the planning and deployment of real-time monitoring elements that advance the goals and purposes of the Real-Time System Management Information Program. State Planning and Research funds, apportioned according to 23 U.S.C. 505(a), may be applied to the development and implementation of a real-time information program.

Those project applications to establish a real-time information program solely for Interstate System highways are entitled to a Federal share of 90 percent of the total project cost, pursuant to 23 U.S.C. 120(a). Those project applications to establish a real-time information program for non-Interstate highways are entitled to a Federal share of 80 percent of the total project cost, as per 23 U.S.C. 120(b).

#### **§ 511.309 Provisions for traffic and travel time conditions reporting.**

(a) All real-time information programs that are funded in whole or in part with the highway trust fund are subject to these provisions.

(1) *Construction activities.* The timeliness for delivery of full construction activities affecting travel conditions, such as implementing or removing lane closures, will be 20 minutes or less from the time of the event occurrence for highways outside of Metropolitan Areas. The timeliness

for delivery of full construction activities affecting travel conditions, such as implementing or removing lane closures, will be 10 minutes or less from the time of the event occurrence for highways within Metropolitan Areas.

(2) *Roadway or lane blocking incidents and events.* The timeliness for delivery of roadway or lane blocking traffic incident, or other event information will be 20 minutes or less from the time that the incident is detected, or reported, and verified for highways outside of Metropolitan Areas. The timeliness for delivery of roadway or lane blocking traffic incident, or other event information will be 10 minutes or less from the time that the incident is detected, or reported, and verified for highways within Metropolitan Areas.

(3) *Roadway weather observations.* The timeliness for delivery of roadway weather observation updates from observation locations along highway segments will be 20 minutes or less from the observation time for highways within Metropolitan Areas and also for highways outside of Metropolitan Areas.

(4) *Travel time information.* The timeliness for delivery of updated travel time information along highway segments within Metropolitan Areas will be 10 minutes or less from the time that the travel time calculation is completed.

(5) *Information accuracy.* The designed accuracy for a real-time information program shall be 85 percent accurate at a minimum, or have a maximum error rate of 15 percent.

(6) *Information availability.* The designed availability for a real-time information program shall be 90 percent available at a minimum.

(b) Real-time information programs may be established using legacy monitoring mechanisms applied to the highways, using a statewide incident reporting system, using new monitoring mechanisms applied to the highways, using value added information products, or using a combination of monitoring mechanisms and value added information products.

#### **§ 511.311 Real-time information program establishment.**

(a) *Requirement.* States shall establish real-time information programs that are consistent with the parameters defined under § 511.309. The real-time information program shall be established to take advantage of the existing traffic and travel condition reporting capabilities, and build upon them where applicable. The real-time information program shall provide, as a minimum, geographic coverage to encompass all Interstate highways

operated by the State. In addition, the real-time information program shall complement current transportation performance reporting systems by making it easier to gather or enhance required information.

(b) *Data quality.* The States shall develop the methods by which data quality can be ensured to the data consumers. The criteria for defining the validity of traffic and travel conditions reporting from real-time information programs shall be defined by the States in collaboration with their partners for establishing the programs.

(c) *Participation.* The establishment, or the enhancement, of a real-time information program should include participation from the following agencies: Highway agencies; public safety agencies (e.g. police, fire, emergency/medical); transit operators; and other operating agencies necessary to sustain mobility through the region and/or the metropolitan area.

(d) *Update of Regional ITS Architecture.* All States and regions that have created a Regional ITS architecture in accordance with Section 940 in Title 23 of the Code of Federal Regulations are required to complete an update of the Regional ITS architecture. The updated Regional ITS architecture shall explicitly address real-time highway and transit information needs and the methods needed to meet such needs. The updated Regional ITS architecture shall address coverage, monitoring systems, data fusion and archiving, and accessibility to highway and transit information for other States and for value added information product providers. The updated Regional ITS architecture shall feature the components and functionality of the real-time information program.

(e) *Effective date.* Traffic and travel conditions reporting needs for all Interstate system highways shall be considered. Establishment of the real-time information program for traffic and travel conditions reporting along the Interstate system highways shall be completed no later than [date 2 years after date of publication of final rule].

#### **§ 511.313 Metropolitan Area real-time information program supplement.**

(a) *Applicability.* Metropolitan Areas exceeding a population of 1,000,000 inhabitants are subject to the provisions of this section.

(b) *Requirement.* Metropolitan Areas shall establish a real-time information program for traffic and travel conditions reporting with the same provisions described in § 511.311.

(c) *Effective date.* Traffic and travel conditions reporting needs and the

impacts from congestion for all Metropolitan Area Interstate system highways shall be considered. Establishment of the real-time information program for traffic and travel conditions reporting along the Metropolitan Area Interstate system highways shall be completed no later than [date 2 years after date of publication of the final rule].

(d) *Routes of significance.* States shall designate metropolitan area, non-Interstate highways that are routes of significance that merit traffic and travel conditions reporting. States shall apply the existing practices and procedures that are used for compliance with 23 CFR part 940, and with 23 CFR part 420. States shall select routes of significance based on various factors relating to roadway safety (e.g. crash rate, routes affected by environmental events), public safety (e.g. routes used for evacuations), economic productivity, severity of congestion, frequency of congestion, and utility of the highway to serve as a diversion route for congestion locations. States shall consider, in consultation with the FHWA, routes that are federally funded, State and locally funded, and privately funded when designating routes of significance. States shall consider toll facilities and other facilities that apply end user pricing mechanisms when designating routes of significance. Arterial highways and other highways that serve as diversion routes for congestion shall be considered for designating routes of significance. Establishment of the real-time information program for traffic and travel conditions reporting along the State-designated metropolitan area routes of significance shall be completed no later than [date 4 years after date of publication of the final rule].

#### **§ 511.315 Program administration.**

(a) Prior to authorization of highway trust funds for construction or implementation of ITS projects, compliance with § 511.311 and § 511.313 shall be demonstrated.

(b) Compliance with this part will be monitored under Federal-aid oversight procedures as provided under 23 U.S.C. 106 and 133, and 23 CFR 1.36.

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