

Real-time System Management Information Program

**ITS Tennessee State Chapter
Annual Meeting
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Agenda

- Background / SAFETEA-LU
- Provisions of the Rule
- Changes from NPRM
- Rule Summary
- Summary of Additional Comments
- Next Steps

Background - Legislation

- SAFETEA-LU, Subtitle B, §1201
 - *Real-Time System Management Information Program*
- Establish a real-time system management information program in all States
- Monitor traffic & travel conditions of the major highways
- Share information to address congestion problems and facilitate traveler information.

Background - Approach

- No new funding provided
 - Explicit Federal-aid eligibility under NHS, STP, CMAQ
- Technology & detailed approach agnostic
 - Information-based requirements
- Build off of existing systems
 - Most States currently have some information
- Potential applications of information
 - Real-time performance monitoring
 - Traveler information

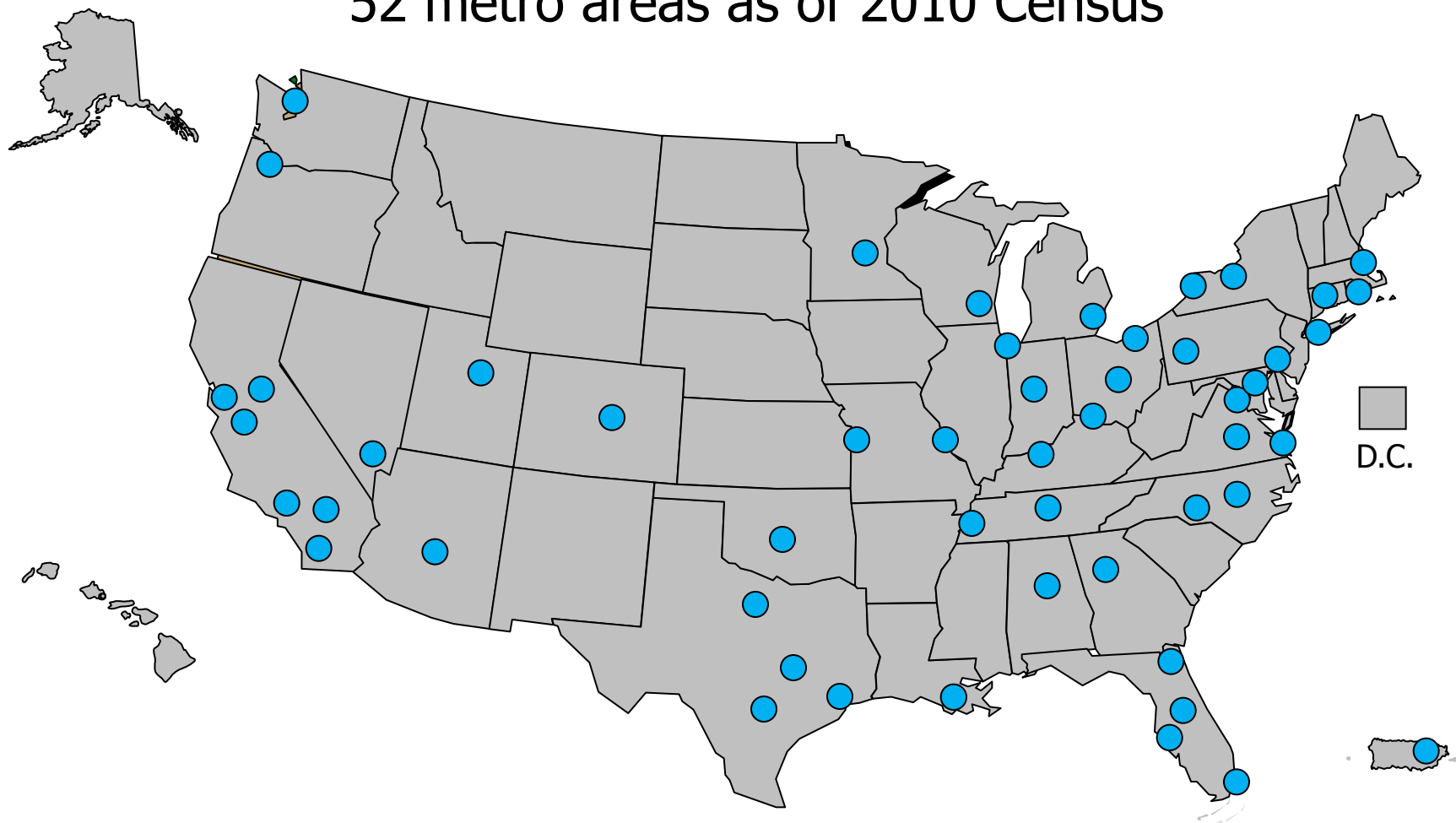
Provisions of the Rule

- 23 CFR Part 511 (1/2)

- Two-stage implementation
 - All Interstates within 4 years (November 8, 2014)
 - Other metropolitan “Routes of Significance” as identified by States in collaboration with local agencies within 6 years (November 8, 2016)
- Information to be made available
 - Construction lanes closures
 - Road- or lane-blocking traffic incidents
 - Hazardous conditions and road or lane closures due to adverse weather
 - Travel times (in Metropolitan areas)
- “Metropolitan” defined as greater than 1 million
 - New additions with 2010 Census: Salt Lake City, Raleigh

Metro Areas Over 1 Million

52 metro areas as of 2010 Census



Provisions of the Rule

- 23 CFR Part 511 (2/2)

- Timeliness of information
 - Construction & Incident information within 20 minutes / within 10 minutes in Metro areas
 - Adverse weather conditions within 20 minutes
 - Travel times within 10 minutes
- Quality measures
 - Accuracy of 85%
 - Availability of 90%

Changes from NPRM

- Time for compliance extended by 2 years
 - November 8, 2014 for Interstates
- Change roadway weather requirements from all conditions to hazardous conditions and road/lane closures due to adverse weather conditions
 - Aligns weather impacts with those associated with construction & incidents
 - Reduces infrastructure or other cost requirements to meet weather reporting parameter, providing flexibility to States in addressing needs
- Require States (in collaboration with FHWA) to identify methods used to ensure quality of information meets minimum requirements
- Travel times only required for limited-access routes
 - Addresses comments about arterials

Not in the Rule

- No requirement for dissemination to general public, use of specific technologies or specific applications
- No method identified or discussed for measuring accuracy or other quality metrics
- No specific (i.e., new) enforcement actions
 - Usual Federal oversight, stewardship actions

Final Rule with Request for Comments

- First time for FHWA
 - Rule was Final with publication November 8, 2010
 - Sought comments about costs & benefits and general information about current and planned programs.
- Five questions; responses submitted to the Docket
 - Docket ID: FHWA-2010-0156-0001 at [Regulations.gov](http://www.regulations.gov)
- 31 parties submitted responses
 - 14 State DOTs, 4 associations/coalitions, 4 individuals, 3 manufacturers, 2 data providers, 2 consultants, 1 city, 1 MPO
- Summary of Responses published July 19 in [Federal Register](#)

Request for Comments: Questions 1-3

1. *What are the costs and benefits of each individual provision required under rule? If some provisions have net costs, would certain modifications to those provisions lead to net benefits?*
2. *What are the impacts of requiring these provisions on States and Metropolitan Areas (do some States and Metropolitan Areas realize net costs instead of net benefits)? If some States and Metropolitan Areas realize net costs, would certain modifications to provisions ensure net benefits?*
3. *Is there a specific, alternative approach to calculating costs and benefits that would be more appropriate than the current use of the Atlanta Navigator Study?*
 - Received some good information on costs but very little specific on benefits
 - Benefits either too complicated or too many unknowns
 - Even if net costs, still valuable to traveler
 - No indication of a “more appropriate” method
 - Received some B/C studies, generally for integrated systems

Request for Comments - 4th Question

4. It is important to understand how information is typically disseminated so that the technologies used to collect and monitor data is compatible with technologies used to disseminate this information. This is especially important to keep up with new technological advances and to ensure that States use the most effective, low cost methods to both collect and disseminate information.

- A. What technologies States will use to collect and monitor information under this rule?*
- B. What technologies are States planning to use to disseminate this information or what are they already using?*
- C. Do the technologies State plan to use present any interoperability issues? Do they allow for use of advanced technologies that could be the most cost-effective means of collecting and disseminating this information?*
- D. Are there any structural impediments to using low-cost advanced technologies in the future given the provisions and specifications contained in this rule?*
- E. Given the research investment into wireless communications systems in the 5.9 GHz spectrum for Intelligent Transportation Systems applications, to what extent could systems in this spectrum also be used to fulfill the requirements of this rule and/or enable other applications?*
- F. Given that there are legacy technologies in place now, and that there are new technologies on the horizon that are being adopted, how can we ensure that investments made today to comply with this rule are sustainable over the long term?*

4th Question - Responses

- Generally traditional techniques used by States to gather & disseminate information, with more of the same planned; field communications, including manual entry of information, is an issue for some States
- Standardized data formats aids interoperability
- State procurement rules may be an impediment in some cases to using low-cost technologies (e.g., proprietary); also combining public & private data may present some impediments
- Timing unclear for wide-spread 5.9Ghz deployment; 5.9Ghz element (or complement) of broader communications; Federal role needed for cooperative 5.9Ghz communications
- Sound engineering / planning to help mitigate risks with rapidly advancing technologies; vigilance to Regional ITS Architectures

Request for Comments - 5th Question

5. *This rule defines “Metropolitan Areas” to mean the geographic areas designated as Metropolitan Statistical Areas by the Office of Management and Budget with a population exceeding 1,000,000 inhabitants. Is this population criterion appropriate, rather than considering traffic, commuting times, or other considerations?*
- General agreement that 1,000,000 was good in determining which metro areas to consider
 - Number of comments related to roadway coverage within a metro area; i.e., some sections of limited-access roadways within the geographic boundaries of the MSA do not experience recurring congestion either at all or overnight, so is there a need for travel time information [24/7]?

Follow-Up Activities

- Refine guidelines related to roadway coverage in metropolitan areas
 - MSA geographic coverage too broad since MSA is for statistical reporting purposes
 - Planning boundaries are more practical, with possible allowance for requesting exceptions
- Revisit temporal coverage for travel time information
 - Overnight hours may experience very little variation or even detection (i.e., no vehicles)
 - Develop guidance for consistent application

Additional Resources

- Gathering successful practices
 - Implementation
 - Gauging & ensuring quality information
 - Making information *available*
- Peer exchanges
 - Re-energizing 511 Coalition to support implementation of *Real-Time System Management Information Programs*
 - Using AASHTO Subcommittee on Systems Operation & Management as stakeholders

Next Steps

- Continue “Roll-out” Information
 - Presentations, etc.
- Guidelines for Implementation
 - Quality measures, metro coverage, etc.
- Process Review Guidelines
 - FHWA Division Offices
- Monitor Implementation
- Update Data Exchange Formats
 - Activities to determine appropriate standards, update guidance, etc.

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