

MAP-21 and SMS

Kristofer Canto

Compliance and Safety Oversight Manager

Bureau of Transit, Local Roads, Railroads & Harbors

Wisconsin Department of Transportation

Transit Safety Presentation #1 | December 1st, 2014



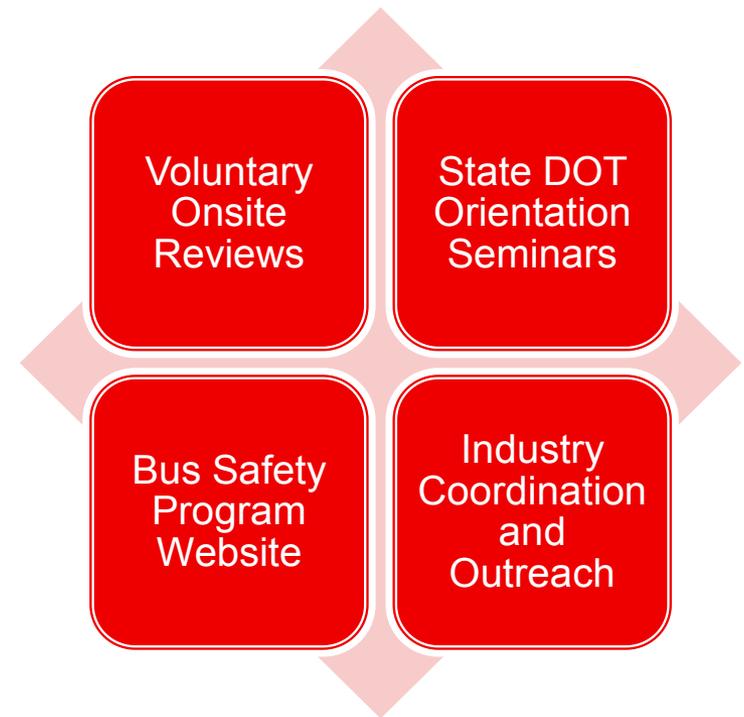
Overview

- ▶ Bus Safety Program
- ▶ MAP - 21 and FTA's New Regulatory Authority
- ▶ Define Safety Management Systems (SMS)
- ▶ Discuss Components of SMS
- ▶ Integrating SMS into Transit Agency Safety Plans
- ▶ Summary
- ▶ WisDOT Next Steps



Bus Safety Program

- ▶ Resource website (<http://bussafety.fta.dot.gov/>)
- ▶ Voluntary onsite reviews
- ▶ Orientation seminars
- ▶ Ongoing outreach



MAP – 21 and Bus Safety Oversight



MAP - 21

- ▶ Moving Ahead for Progress in the 21st Century Act signed into law July 2012
- ▶ Includes Section 5329 – “Public Transportation Safety Program”
- ▶ Creates a National Safety Program
 1. National Safety Plan
 2. Transit Agency Safety Plan – NPRM expected 2015
 3. Safety Certification Training Program
 4. *State Safety Oversight (SSO) Program (rail)*



Components of the National Safety Program

National Safety Plan 49 U.S.C. 5329(b)

- Establishes SMS as foundation for FTA's safety regulatory framework
- Includes the definition of State of Good Repair and Safety Performance Criteria

Transit Agency Safety Plan 49 U.S.C. 5329(d)

- Introduces SMS into practice through the development of Transit Agency Safety Plans
- Provides agencies with authority to set performance targets for safety based on requirements set out in the National Safety Plan

Safety Certification Training Program 49 U.S.C. 5329(c)

- Introduces SMS concepts that apply to transit grantees regardless of modes
- Improves technical competencies of safety oversight professionals, including federal/state employees or other personnel, such as employees of public transportation agencies responsible for safety oversight



Transit Agency Safety Plan

- ▶ The Transit Agency Safety Plan will demonstrate:
 - Compliance with the National Safety Plan by setting targets to meet identified performance criteria and standards (i.e. <15 traffic incidences in a year)
 - Implementation of a Safety Management Systems Framework

- ▶ 5311 – plan may be drafted and certified by the recipient or the state
- ▶ 5307 – FTA designates which public transportation providers may have their safety plans drafted or certified by the state



Transit Agency Safety Plan

- ▶ **At a minimum, these plans must include:**
 1. A requirement that the board of directors, or equivalent entity, approve the Transit Agency Safety Plan and any updates to the plan
 2. Methods for identifying and evaluating safety risks throughout all elements of the recipient's public transportation system
 3. Strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions



Transit Agency Safety Plan

▶ Continued...

4. A process and timeline for conducting an annual review and update of the plan
5. Performance targets based on the safety performance criteria and State of Good Repair (SGR) standards set out in the National Safety Plan
6. Assignment of an adequately trained safety officer who reports directly to the general manager, president, or equivalent officer of the recipient; and
7. A comprehensive staff training program for the operations personnel and personnel directly responsible for safety



Safety Management Systems (SMS)



Safety Management Systems

- ▶ Scalable and flexible management framework to support transit systems of all sizes
- ▶ Proactive method for managing safety
- ▶ A way to ensure data-driven safety decision making
- ▶ Focused on the overall safety performance, not compliance with regulation and requirements



- ▶ ***The goal of SMS is to ensure that public transit agencies have a strategic decision-making process to proactively identify, prioritize, and control emerging safety risks before those risks become critical system failures***



How can we manage what we don't measure?

▶ Reactive (Pre-SMS)

- Documenting
- Tracking
- Trending
- Lagging indicators

▶ Proactive (SMS)

- Leading indicators
- Reporting risks and potential risks
- Threat & Vulnerability Assessments

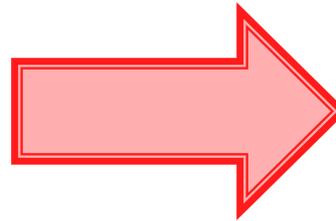
From Compliance Approach

Documentation of current procedures and practices

Safety regulators as primary audience

Focus on compliance to prescriptive regulations

Reactive response to lagging indicators such as accidents



To SMS Approach

Documentation of strategies to address priority safety risks

Agency leadership, employees and stakeholders as primary audience

Focus on measurement of effectiveness of risk control strategies and achieving safety outcomes

Proactive focus on accident precursors such as close calls

SMS Pillars

- ▶ Safety Management Systems (SMS) Policy and Procedures
- ▶ Safety Risk Management
- ▶ Safety Assurance
- ▶ Safety Promotion



Key Features of SMS

- ▶ **Risk Analysis** – proactive to enhance service safety performance
- ▶ **Positive Safety Culture** – supports safety communication and reporting
- ▶ **Partnership and Knowledge Sharing** – intra/inter agency and state, local, federal government
- ▶ **Accountability** – managers allocating resources, & employees delivering positive safety results



Key Features of SMS

- ▶ **Collaboration** – management and labor working together to ensure agreement on safety priorities
- ▶ **Decision-Making** – structured and strategic for safety resource allocation
- ▶ **Safety Assurance** – to increase confidence in safety risk controls established
- ▶ **Safety Promotion** – communication and agency-wide buy in and training
- ▶ **Scalable and Flexible** – based on the size of the agency and complexity of services delivered



Key SMS Activities

- ▶ Collecting and analyzing data and information to proactively identify hazards
- ▶ Taking actions to mitigate the potential outcomes of these risks
- ▶ Monitoring risk through a system of safety controls
- ▶ Monitoring mitigation measures to ensure the success of those strategies
- ▶ Using data to support the allocation of resources to promote and support safety performance
- ▶ Perform each of these activities as part of an ongoing, highly functional SMS process



- Accountable Executive
- Instilling Culture of Change
- Management Commitment
- Integration of Existing Programs
- Policies and Objectives
- Organization Structure
- Roles and Responsibilities
- SMS Processes
- Documentation

- Hazard Identification
- Risk Analysis
- Monitoring
- Risk Assessment
- Risk Mitigation



SMS POLICY AND PROCEDURES

RISK MANAGEMENT

RISK CONTROL STRATEGIES

SAFETY ASSURANCE

SAFETY PROMOTION

- Monitoring
- Quality Assurance
- Incident Investigations
- Reviews, Audits and Inspections
- Data Collection and Analysis
- Change Management
- Performance Management
- Close-call/near miss Reporting Systems

- Asset Management and Maintenance
- Health, Wellness, and Fatigue Management
- Work Zone Safety
- Defensive Driving and Operations
- Crisis Management and Continuity of Operations
- Emergency Response Procedures

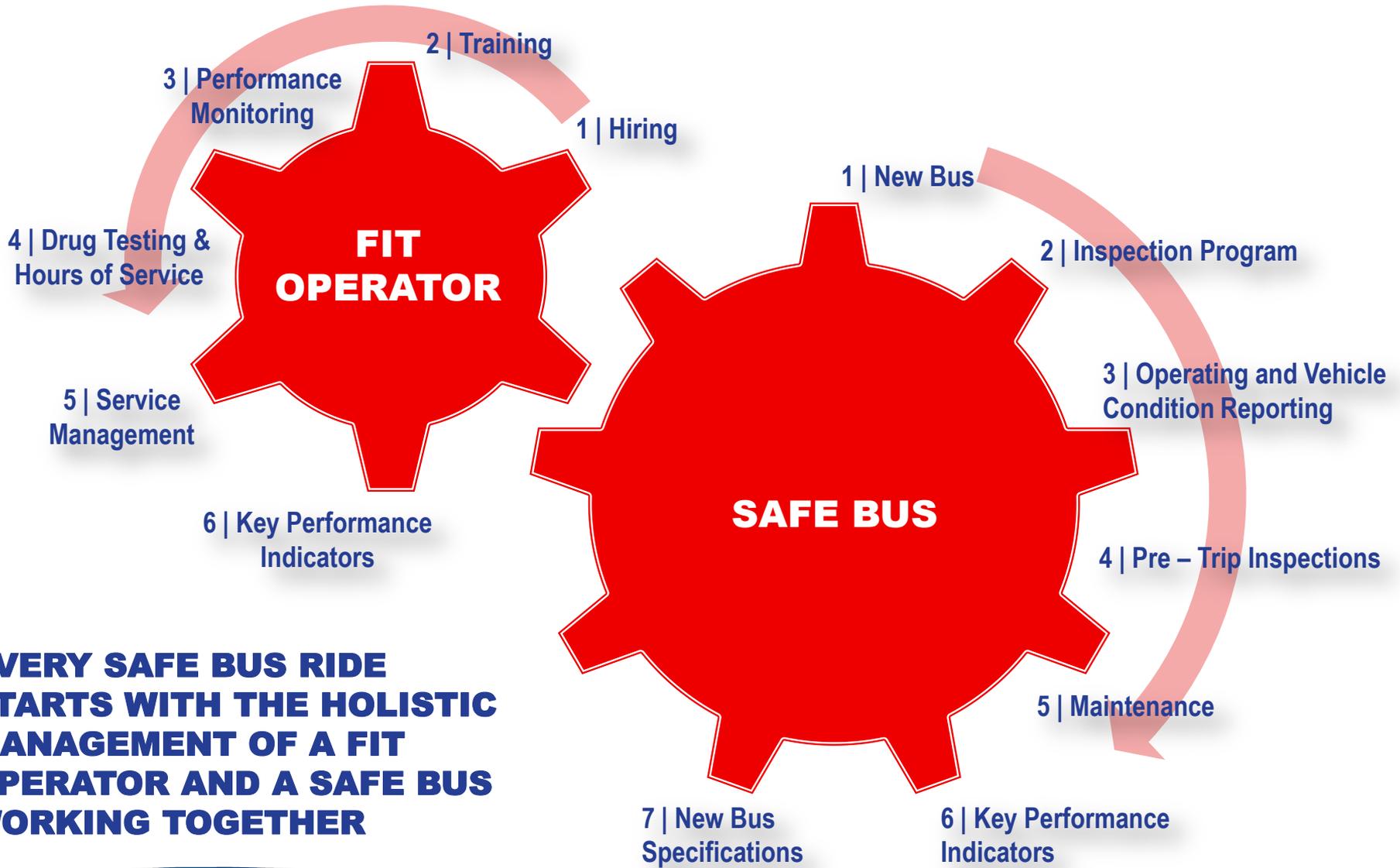
- Safety Culture
- Safety Education and Training
- Risk Communication and Awareness



Who should be at the SMS table?

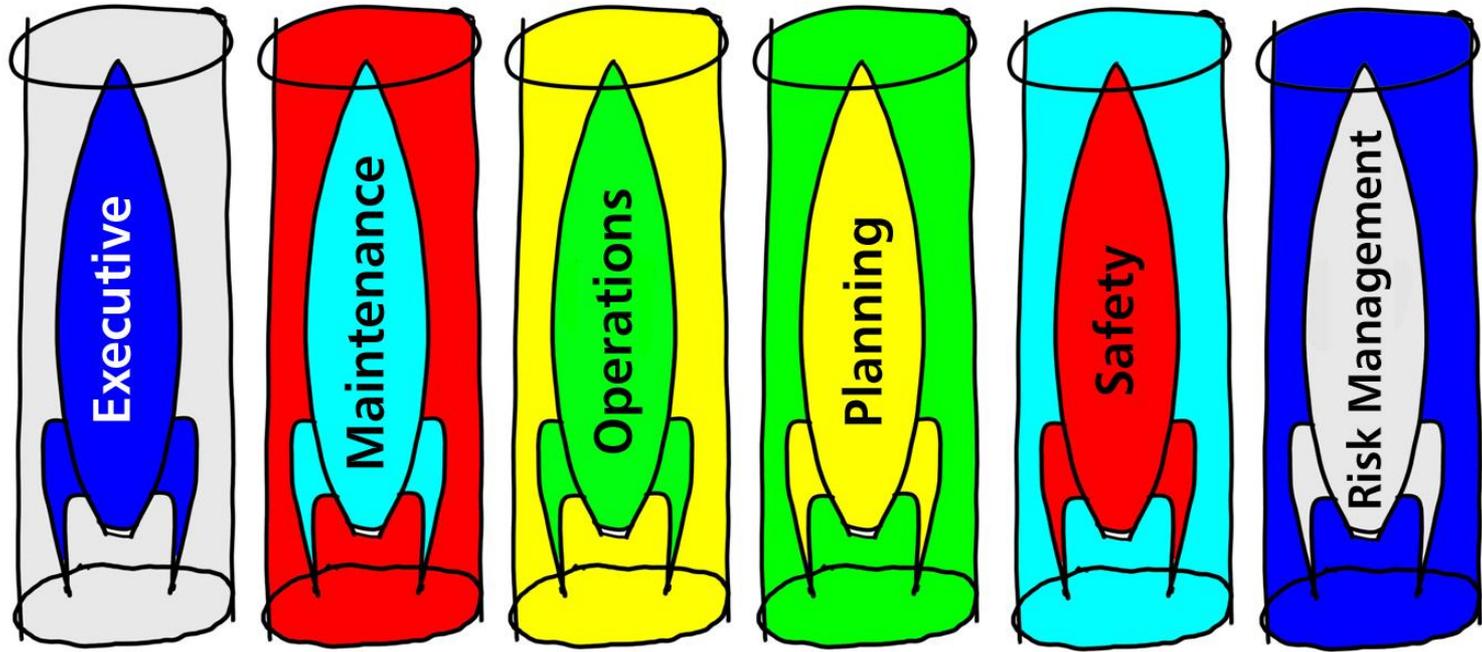
- ▶ Management
- ▶ Operations
- ▶ Maintenance
- ▶ Safety
- ▶ Human Resources
- ▶ Risk Management
- ▶ Procurement
- ▶ Marketing





EVERY SAFE BUS RIDE STARTS WITH THE HOLISTIC MANAGEMENT OF A FIT OPERATOR AND A SAFE BUS WORKING TOGETHER





death by silo.

How to Incorporate SMS into Transit Agency Safety Plans?



Fundamental SMS Questions Answered in Transit Agency Safety Plans

- ▶ What will likely be the cause of the transit agency's next accident? Is the transit agency doing risk monitoring to discover and address those potential causes?



Fundamental SMS Questions Answered in Transit Agency Safety Plans

- ▶ How does the transit agency know the likely cause of the next accident? Does the transit agency have internal auditing, required and voluntary reporting, data collection and analyses, and tracking to indicate that personnel are accurately informed about the biggest risks?



Fundamental SMS Questions Answered in Transit Agency Safety Plans

- ▶ What is the transit agency doing to mitigate the risk? Does it have a viable strategy or action plan, along with appropriate budgetary and staff resources in place to control or mitigate the risks?



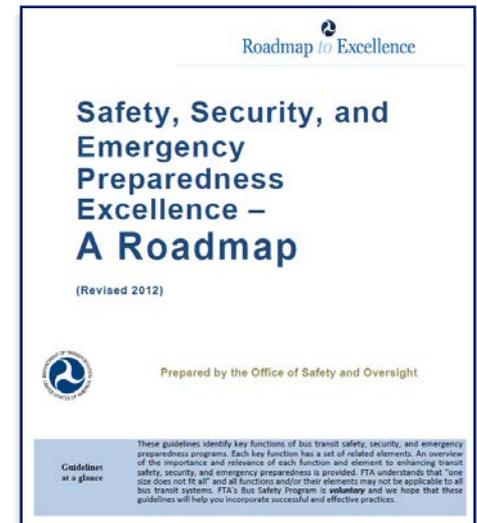
Fundamental SMS Questions Answered in Transit Agency Safety Plans

- ▶ Is the strategy or action working?
Does the agency have measures in place that will tell agency staff if the strategy or action plan is working to control or mitigate the identified risks?



FTA Safety, Security, and Emergency Preparedness Excellence – a Road Map

- ▶ Key Functions
 - Management
 - Operations and Maintenance
 - Human Resources
 - Safety Activities
 - Emergency/All-Hazards Management



<http://bussafety.fta.dot.gov/Roadmap.pdf>



Summary

- ▶ Under MAP-21 FTA has been given greater regulatory authority and will require that recipients of 5307/5311 funding develop a Transit Agency Safety Plan
- ▶ Transit Agency Safety Plans will be developed using a Safety Management Systems Framework (SMS)
 - What is most likely to be the cause of your next accident or serious incident?
 - How do you know that?
 - What are you doing about it?
 - Is it working?
- ▶ Notice of Proposed Rule Making expected Mid to Late 2015



Recommended Transit Agency Safety Plan Elements

A. Policy Statement:	A policy statement establishing senior management commitment to continual safety improvement, signed by the executive accountable for the operation of the agency and the board of directors
B. Document Revision and Control:	A description of the regular annual process used to review and update the plan including a timeline for implementation of the process
C. Description of Core Safety Responsibilities:	A description of the responsibilities, accountabilities, and authority of the accountable executive, the key safety officers, and key members of the safety management team
D. Safety Training Program:	A description of the comprehensive safety training program for agency staff that ensures that staff are trained and competent to perform their safety duties
E. Safety Risk Management Approach:	A description of the formal processes the agency uses to identify hazards, analyze and assess safety risks, and develop, implement and evaluate risk controls
F. Prioritized Safety Risks:	A description of the prioritized, significant safety risks to the public personnel and property
G. Risk Control Strategies and Actions for Prioritized Safety Risks:	A description of the risk control strategies and actions that the agency will undertake to minimize exposure of the public, personnel and property to hazards, including a schedule for implementing the risk control strategies and the primary entity responsible for each strategy
H. Safety Assurance:	A list of defined safety performance indicators for each priority risk and associated targets the agency will use to determine if it is achieving the specified safety goals
I. Desired Safety Outcomes or Goals:	A description of desired safety outcomes for each risk using the measurable safety performance indicators established



WisDOT Next Steps

- ▶ Develop templates, resources and training materials
- ▶ Provide ongoing technical assistance
- ▶ Facilitate training opportunities and assist in distributing relevant resources
 - FTA/WisDOT led training tentatively scheduled for April 21, 22 or 23rd of 2015



Resource Website

- ▶ Library of 1300 resources
- ▶ Self-assessment tool (helps transit agencies identify safety gaps)
- ▶ Case studies
- ▶ Safety news and events
- ▶ E-Learning modules
- ▶ (<http://bussafety.fta.dot.gov/>)
- ▶ (<http://www.floridatsn.org/>)



Questions?

Kristofer Canto

Compliance and Safety Oversight Manager

Bureau of Transit, Local Roads, Railroads & Harbors

Wisconsin Department of Transportation

Phone: 608-266-8165

Email: Kristofer.Canto@dot.wi.gov

