

Creating TriMet's Culture of Safety

Leading the way to service excellence – an update

May 2011

Background

TriMet's Task Force on Safety and Service Excellence was created in July 2010 to address the charge from TriMet's General Manager: "How to migrate TriMet to the highest levels of safety performance, and thereby improve performance in all areas of its business." The Task Force brought expertise in public safety, traffic engineering, professional drivers, pedestrians, bicyclists and private business together with TriMet bus and rail operators. In nine meetings leading to the release of its report in October 2010, the Task Force worked closely with TriMet staff to "provide the general manager with guidance for further action."

The report prepared by the Task Force made 19 recommendations covering four major areas to improve the safety performance of the organization. The work of the committee was conducted side-by-side with a technical safety review by K&J Safety and Security Consulting Services and a detailed line-by-line review of TriMet routes by TriMet's own training and safety staff.

The four categories of Task Force recommendations were:

1. **TriMet Culture:** Make safety a value, not just a priority, by transforming TriMet's culture.
2. **Communication and Engagement:** Empower operators to be active participants in their work as the face of the agency to the public. Engage the community in helping TriMet be successful in an ever-growing complex operating environment.
3. **Accountability, Empowerment and Support:** Elevate and expand the Safety Department by appointing an executive director of safety, who will be responsible for developing and implementing a comprehensive safety program, enhanced tools for accountability, and an employee support structure.
4. **Tools, Systems and Processes:** Develop metrics for driving performance and make better use of safety data to inform decision making.

The work of the TriMet Safety & Service Excellence Task Force provided a valuable framework for TriMet's safety review, though TriMet's efforts have gone beyond the 19 recommendations. TriMet has tracked its progress against those recommendations. Since the spring of 2010 TriMet has been focused on efforts to make sure the service it provides to the community is delivered in the safest way possible. The work has advanced on many fronts, with immediate focus on safety concerns associated with TriMet's daily operations including revisions in "standard operating procedures" and development of systems that will ensure the safe delivery of service.

What's Next

In the year ahead, the safety-oriented work program will mature into a "Safety Management System", departing from the very useful framework of recommendations provided with the Safety and Service Excellence Task Force recommendation. This will be part of a maturation

process that will move TriMet from reaction an integrated and sustainable approach that is proactive and eventually predictive.

The Safety Management System (SMS) will be a decision-making process that will become part of our business and operation. It will require self-examination and will promote continuous improvement of safety by using specific methods for predicting hazards, gathering feedback from employees and collecting meaningful data. The information will be analyzed and assessed to control the safety risks. It will allow TriMet to determine the need for further actions by sharing knowledge and information. Ultimately, this will lead to the safety mindset and culture TriMet desires.

What's Been Accomplished?

While the culture of safety assurance lies with every aspect of TriMet operations and management, day to day responsibility is centered in its Operations Division. An all-hands retreat of Operations management staff was held in November 2010 to determine how the Task Force recommendations might best be translated into a detailed work plan. Today, that plan calls out approximately 259 tasks, which are being implemented and tracked. Over 100 of those tasks have been completed. TriMet is committed to not only implementing, but in sustaining these changes. Below is the progress to date on each of the 19 Task Force recommendations:

1. General Manager's call to Action: TriMet General Manager, Neil McFarlane, has called for migrating TriMet to the highest levels of performance and thereby improving performance in all areas of business. Internally, "The TriMet Way" posted in all employee work areas calls on TriMet to "make life better for the community by being **safe**, dependable, responsive, easy and inviting." Safety is a first consideration in all that TriMet does. The General Manager has clearly made **safety an organizational value**.

This cultural shift is also reflected in the organization's mission:

*The Total Transit System includes frequent, reliable and comfortable service, easy access to stops and stations, clear customer information, and a **safe and secure trip**—while ensuring transit equity and environmental justice and moving toward sustainability.*

- a. *We strive to make life better for our community by providing high-quality transit service that is **safe**, dependable, responsive, easy and inviting.*
- b. *We believe that we will reach the highest level of service excellence in a work environment where **safety is a fundamental value**. [emphasis added]*

On April 1, all job descriptions for managers, directors and executive directors were changed to reflect safety as a fundamental value.

2. Employee Engagement: Safety begins with TriMet's day-to-day operations that are provided by an experienced and dedicated frontline workforce. These employees are best able to identify potentially unsafe conditions and their resolution. This essential input is being secured in a number of ways:

- a. **Safety Exchange:** Frontline employee input has already been received through a new venue called “Safety Exchange” where employees can share their suggestions and concerns on safety-related topics. These informal sessions have been held both in operator report rooms and in the field.
 - b. **Request for Safety Assessment:** The Operator Condition Report (“Yellow Card” system), whereby operators report defects or problems along their route, has now been revised with a separate, on-line “Request for Safety Assessment (RSA)” where safety concerns can be called out and given immediate attention. The RSA has been accessible to bus operators since mid-March. It will eventually be available to all employees. An online issues log is available for operators to check the status of their request.
 - c. **Safety Committees:** TriMet has reviewed the composition and the role of its nine safety committees to make them more effective and inclusive. Those committees with revolving membership are discussed under #16, below. It is intended that committee representatives become ambassadors to the rest of the workforce. The Transit Change Review Committee has also been restructured to place safety at the top of its agenda.
3. Strategic Data Sharing: Metrics that describe TriMet’s safety-oriented performance are grounded in a number of information sources. These include input from frontline employees, customer comments, incident and crash data and specific initiatives including hot spot observations and periodic line-by-line reviews of TriMet service.

The analysis of this information is taking the form of the safety dashboard, mappings, and graphics. TriMet has installed flat screen monitors in operator report areas where much of this information is displayed alongside instructive safety scenarios. There is great potential in using this medium to share information and elicit additional feedback. In the meantime, this information is being posted on bulletin boards, on the internal website and in printed materials.

This information is also being used by Transportation Managers and Supervisors to identify individual performance and safety concerns that might be corrected with Operator counseling and retraining.

The Safety Dashboard will also be reflected on TriMet’s public website and presented in the 5-year Transit Investment Plan to be published in June.

4. Community Advisory Committee: The 12-member Safety Education Advisory Committee (SEAC) has been created and held its first meeting on March 15, 2011. The purpose of the SEAC is to collaboratively strengthen community presence and promotion of safety programs and services by bringing together community representatives who have an active interest and stake in helping make our streets safe; to share ideas and create leverage for effective strategies that raise awareness; and promote safe behavior for pedestrians, bicyclists and motor vehicles around buses and trains.

The mission of the committee is to “review and assess, and provide guidance and support to each other’s agency efforts to affect successful outcomes to safety strategies, campaigns, events and activities to promote safe behavior around transit. A key indicator of success will be the demonstration of increased awareness and practice of safe behaviors around transit by targeted audiences.”

The committee will ensure focus on priority audiences, areas and issues; leverage resources of key stakeholders, partner agencies and jurisdictions to promote safety; identify and activate opportunities for improved safety outreach and public education, and provide actionable feedback to TriMet with regard to safety education, enforcement and engineering efforts to make our streets safer.

While this committee is a primary conduit between TriMet and the community it serves, TriMet will continue to engage the community at its various planning forums, Board meetings, and through customer service inquiries.

5. Engagement with Partner Organizations: Partnerships play a key role in TriMet’s planning, service development and operations. This is no less the case in bolstering a safety culture at TriMet. The 12-member Safety Education Advisory Committee noted above is one essential link between TriMet and the community it serves.

TriMet has increased its representation on the Metro Regional Safety Workgroup, an interagency group focused on promoting safe transportation, setting regional safety-oriented priorities and providing for the consistent reporting on safety concerns and trends.

It is recognized that transit riders require safe and convenient transit access. TriMet is responsible for the conditions at bus stops and MAX stations, but must work with jurisdiction partners to elevate the need for safe bike and pedestrian access to transit. TriMet’s in-progress “Pedestrian Network Analysis Project” is setting the stage for a program of capital improvements that will create a safer pedestrian environment around transit throughout the region. TriMet will continue to work with partners to secure and leverage resources to create safer street crossings and complete sidewalks and paths.

6. Language and Definitions: Integral to elevating a safety culture at TriMet has been the review of terminology and all documentation. This includes both replacement terminology (e.g. “crashes” versus “accidents”) and the elevated importance of safety in describing roles and procedures. A review of the TriMet lexicon is complete and TriMet is integrating safety-oriented language into all modes of internal and external communication.
7. Executive Director of Safety: This new position (Safety and Security Executive) was a recommendation of the K & J comprehensive safety review and the Safety and Service Excellence Task Force. Harry Saporta, a national and international leader in safety and security, with more than 31 years in the field has been selected for this position.

Harry Saporta has worked on most major transit projects around the world. Most recently, he worked in Abu Dhabi as lead of the Surface Transport Safety and Security Project for all modes of surface transportation for the Emirate's Department of Transport. He also is no stranger to TriMet with 19 years as Safety Manager during the construction of the Eastside, Westside and Airport MAX projects. While here, he developed a comprehensive rail and bus safety and emergency management program. He has also served as Director of Safety and Security for the Federal Transit Administration (FTA), responsible for developing safety and security programs to meet the safety, homeland security and transit security, and emergency management needs of the US public transportation industry.

Harry Saporta reports directly to the General Manager and oversees the agency's safety and security programs. With this position will come a more proactive role for the Safety Department.

8. Hiring and Training Practices: A review is in progress to determine if and how TriMet can improve its hiring process to better assess behavioral, attitudinal and fitness compatibility with the demanding roles as a bus or rail operator. Investigation to date shows that TriMet does well in this regard relative to peer agencies.

TriMet has already reviewed and is making adjustments to its training program and the monitoring of operator performance through their probationary period

While recertification has been in place for Rail Operators, that program has been revised with an enhanced safety focus. Additional resources (both Operator and Trainer positions) were created to launch a Bus Operator recertification process on April 18th. This new eight-hour class is annually updating and recertifying 6 operators at a time.

TriMet has revised its probationary training program with a safety emphasis to include a once-a-month probationary class to assure retention and application of safe practices among new operators.

TriMet is also evaluating and updating our agency training programs. Revised training will include the following modules:

- a. Safety Driven Service Excellence (all employees)
 - b. Communicating in a Safety Driven Organization (all employees)
 - c. Managing Performance (all managers and supervisors)
 - d. Job specific safety training (specific workgroups)
9. Health and Wellness: TriMet strives to create a healthy work environment that is conducive to employee productivity, satisfaction and wellness. Operators need convenient access to programs and information that promote healthy living and fitness. Resources already in place need to be better utilized and promoted. These needs are addressed in the following ways:
 - a. A welcoming and relaxing work report area providing options for effective use of employee "down time" is needed. TriMet is planning renovations that will improve this

setting for operators and mechanics; however, full implementation of renovations awaits budgeted resources.

- b. Healthy meal selections in employee report areas have been a long-standing challenge as full-service meal providers are not readily supported by the isolated work locations and it is difficult to maintain healthy food selections in vending machines. TriMet is working with vendors to identify strategies for providing healthier selections that would be appealing to employees.
- c. Both the Regence and Kaiser health care programs provide a series of forums that promote healthy lifestyles, wellness and weight control programs. TriMet is working with its health-care providers to promote and make these programs more accessible to employees.
- d. The Cascade Center Employee Assistance Program also provides a series of wellness programs addressing weight management, fitness, smoking cessation pre and postnatal care and health self-management. Health coaches introduce employees to these programs and help employees set wellness goals, but these programs also need to be better promoted, with convenient and un intimidating employee access.
- e. The non-profit TriMet Employees Incorporated (TEI) provides fitness facilities and resources at all TriMet operating facilities. Membership fees are nominal. Access is available at all hours. Simple ways to incorporate fitness into what can be a sedentary operator routine are also being promoted.

It is recognized that these programs are only effective when used by employees. TriMet will look to using existing employee assistance programs to promote these essential wellness strategies. TriMet is also investigating ways to bring these wellness resources closer to the employees with health fairs and on-site sessions with wellness counselors.

- 10. Recognition Programs: TriMet's formal operator recognition program has always included safety as a criterion for acknowledging exemplary performance, but safety is now being elevated as a primary consideration in acknowledging and rewarding employees. TriMet has solicited and received operator input on how this program might be reshaped to better reflect the organization's safety values and to provide appropriate program incentives. These revisions will be in place for operators, maintenance employees and supervisors later this year. The general manager has also created the General Manager's Safety and Service Excellence Award that will be given annually to employees who have demonstrated their commitment to safety and service quality.
- 11. Union Engagement: The various Safety Committees and the Transportation Safety Committee are all comprised of largely frontline employees who are all Amalgamated Transit Union (ATU) members. The Bus and Rail Safety Committees and TriMet's Security Committee include an ATU representative.
- 12. Safety "Dashboard": Metrics collected from various sources have been used to create a "safety dashboard" that provides a summarized review of safety performance for reference by management and frontline employees alike. The metrics are expressed against targets

and trends are identified. Safety related incidents are being mapped. The safety dashboard is posted in employee report areas and the TriMet website and will be shared weekly at Leadership meetings and monthly at TriMet Board meetings as part of the Monthly Performance Report.

TriMet expects to make the Safety Dashboard a sustained feature that will inform and reinforce the District's commitment to safety at all levels, all the time.

- Data Analysis in Support of Hazard Identification and Incident Prevention: Baseline data is being collected and data will be mined to provide greater prediction of problems before they become safety concerns. By combining operator work histories with circumstantial information regarding incidents and crashes, the root causes of these events can be better understood and corrected. Incident reporting systems are being revised to support this effort. This data will also provide some measure of effectiveness of hot spot corrections, operator recertification and other proactive measures to improve safety in all TriMet operations.
13. Yellow Card Program: A major component of the revised safety and service excellence program is the creation of a separate Request for Safety Assessment (RSA) that allows Operators to report safety concerns online as a distinct priority from other needs addressed in the Operating Condition Report (aka "Yellow Card"). This RSA system was initiated on March 14th. RSA submittals of approximately 10 per week are being recorded, assigned for resolution, and results reported back to the operator. Once the bus RSA system is running smoothly, expansion of the system for rail operators and all TriMet employees will be developed and put in place.
14. Systematic Hot Spot Review: Hot Spots - problem locations - in the TriMet system are identified with a number of sources:
- a. Operator and employee initiated RSAs described above.
 - b. Reports and mappings of incident and crash data – summarized in the Safety Dashboard.
 - c. A proposed system whereby Operators can report with the touch of a control head button (or two) "near misses" of various types in the course of operating their route. These events could be instantly recorded, mapped and aggregated with other data to reveal potential "hot spots" in need of attention.
 - d. Routine review of routes and potential hot spots by Field Supervisors and Trainers.
 - e. A comprehensive, interdepartmental line-by-line review described below.

Safety Department staff has been conducting field reviews of hot spot locations to better understand the source of potential hazards. At the end of March, seven hot spot locations had been studied by safety department staff. Behavioral concerns are being reported to transportation managers for corrective training or counseling with operators. Street layout concerns may be addressed with bus stop moves or closures, the rerouting of service, or corrective signage or lane markings carried out with partner jurisdictions.

15. Employee Safety Committees: Committees are in place for all aspects of TriMet operations. Representation on the rail and bus transportation committees is now balanced among the operating bases and includes a lead road supervisor. The committees are being armed with reports drawing on RSA data, collision data, curbside observations of operations, community and customer feedback and reports from all TriMet departments. Analyses brought to these committees will expose trends and help the committees set priorities for corrective actions. These committees are staffed by TriMet Safety Department, which is charged with advancing and resolving safety concerns. Trained and experienced safety committee members will act as ambassadors to the rest of the workforce – keeping safety on the front burner for all work groups. There is also a committee for each of TriMet’s facilities addressing site-specific safety topics.

The Transit Change Review Committee is now chaired by the safety executive and places safety at the top of each meeting’s agenda. The committee further includes a representative from Capital Projects, who can address bus stop and streetscape concerns.

16. Scheduling and Safety: The art of preparing transit schedules requires the careful collaboration of schedulers, trainers and bus operators. Customers want reliable service that gets them to destinations in the least time; however, the safe operation of the bus must be the first priority. TriMet has elevated the collaboration between the Training and Scheduling Departments to provide operators with the needed time for schedule recovery and essential breaks, with Lines 57, 75 and 12 being the first test routes. The objective is to remove operator stress while maintaining service quality. Additional service hours are being allocated for this to happen. This is part of a “safety first” message that takes precedence over all other aspects of service quality.

17. CCTV Use with Operators: The use of CCTV in the operator’s compartment is still being evaluated.

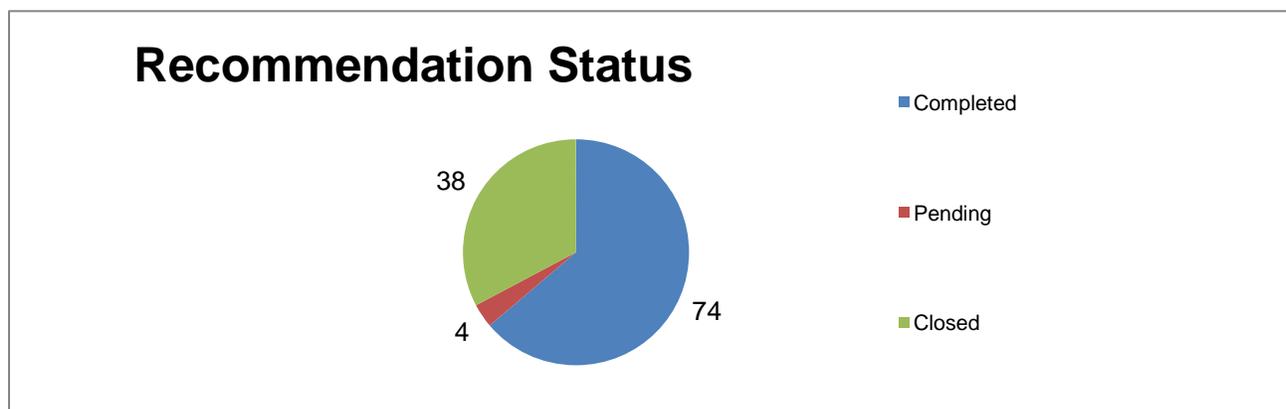
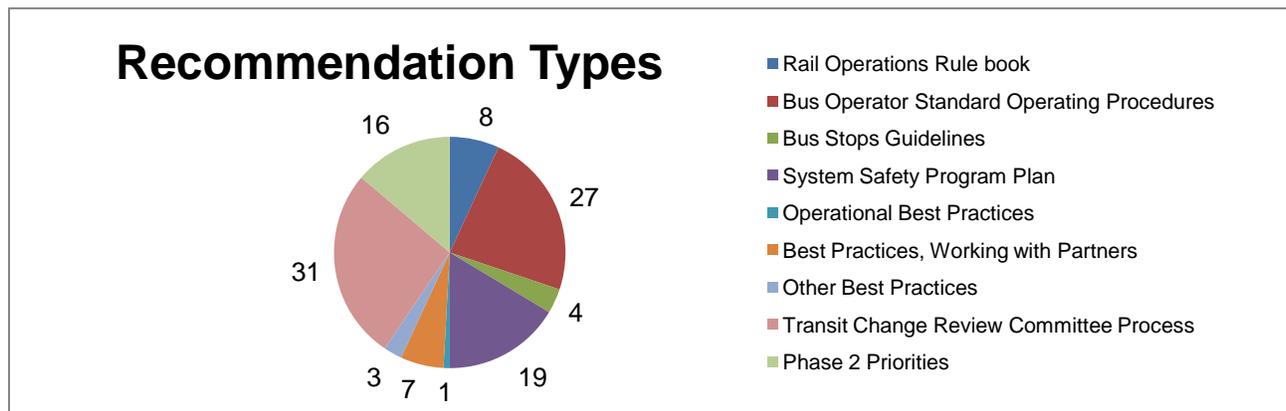
18. Improved Emergency Plans: There were instances during previous winter storms where operators felt stranded and out of touch. This was not adequately addressed in the Winter 2010 Emergency Plan, but these concerns will be addressed as that plan is updated this summer. The new radio system to be installed this year will improve the tracking capability in emergencies. Frontline employees need to be up to date in these circumstances. In this way they too can reassure customers and provide them with the safest service under adverse conditions.

System Safety Review and Evaluation Report Recommendations

K&J Safety and Consulting Services, Inc.

Coincident with the preparation of the Safety and Service Excellence Task Force Recommendation was the commissioning of a study by an independent safety consultant. Many

of the recommendations from that study pertain to “standard operating procedures”. That report listed 116 proposed corrective actions of which only four are still being resolved (97% resolved).



“Completed” recommendations were accepted and implemented or changes have been made in the spirit of the recommendation. “Closed” recommendations rejected because the reviewer may not have had information needed to make an informed judgment or the recommendation was carefully considered and a conscious decision was made not to implement the recommendation.

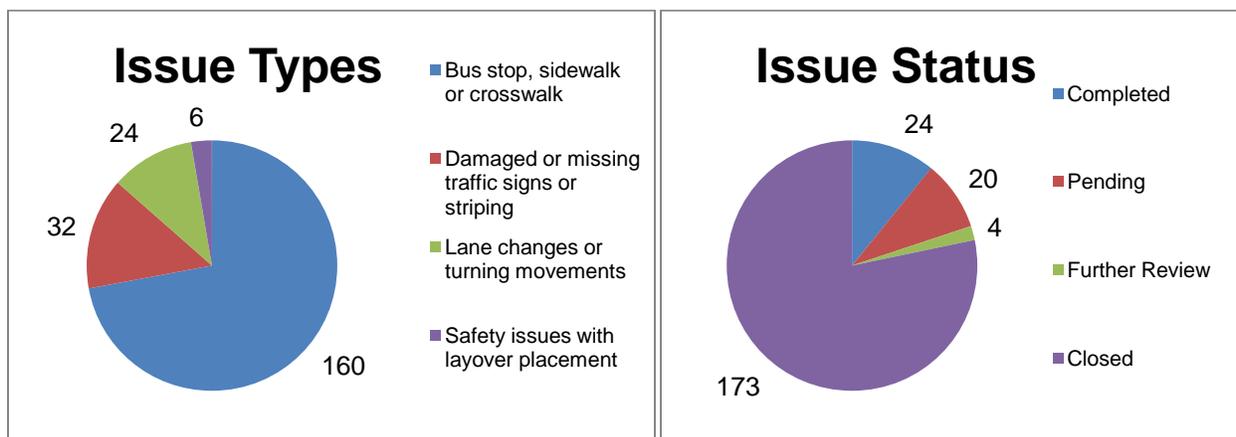
One recommendation of that study was that TriMet consider a practice of honking prior to making left hand turns (represented as two of the “Pending” items, above). Recognizing that might not be well received by pedestrians and adjacent building occupants, TriMet consulted with transit operators in Cleveland and Washington DC and have similarly installed 10 “Taking Bus” units for a trial period on Lines 14 and 15. These units call out “Pedestrians, bus is turning” as the bus makes a right or left hand turn. The results, after a month of testing, are mixed, but mostly negative. The primary concern is that the message is activated by the buses steering mechanism too late in the turn to be useful. Both operators and customers find the “chatter” of these units to be annoying. This test is proceeding with the units adjusted for earlier activation. Those buses are now assigned to Line 17. TriMet is also investigating a unit that is activated by the turn signal and GPS, thus allowing the message to be conveyed *before* the bus begins the turn.

TriMet Line-by-Line Review

Immediately following the pedestrian tragedy of last spring, TriMet initiated a line-by-line review of each of its routes with a particular focus on bus lane changes, turn movements and bus stop placement. 221 locations potentially in need of improvement were identified and 197 (89%) of them have been resolved. This review produced the following breakdown of needs:

Category of Corrective Action	Completed	Closed	Pending	Further Review	Total
Review the placement of the bus stop as well as street, sidewalk and bike lane design	20	132	5	3	160
Address safety concerns related to damaged or missing traffic signs as well as lane striping and lane direction issues	2	18	12	0	32
Lane changes / turns including safety concerns related to lane use for turns or other maneuvers as well as distance available to signal for lane changes prior to turns	2	20	0	1	23
Layovers including safety concerns at location where the bus parks for an extended period of time	0	3	3	0	6

“Completed” items are safety concerns that have received some action for resolution. “Closed” items are those where the issue was already resolved, did not really exist or where a conscious decision was made that there is not a safety issue requiring resolution. Many “closed” items are instances where a bus making a stop blocks a driveway or side street. This was determined to not necessarily pose a safety concern.



Issues varied greatly and solutions included bus stop removal or relocation, routing changes or improved signage or striping for both bus operators and other motorists. In one instance, unique

electronic signage has been used to create a safer environment for turning a bus around at the end of its route. Work continues on this list even as new potential safety concerns are identified.