TRANSIT
ASSET
MANAGEMENT

Winter 2024 Peer Exchange
Aligning FTA Reporting and Requirements

U.S. Department of Transportation
Federal Transit Administration

Overview

The Federal Transit Administration (FTA) [Transit Asset Management](#) (TAM) Program hosted a peer exchange on February 28-29, 2024, in Washington, D.C. The purpose of the peer exchange was to bring together a small group of transit professionals from around the country to support professional capacity building for transit agency staff and engage in-person to discuss asset management strategies that providers can use to meet and, in many cases, go beyond the requirements in the [TAM Rule (49 CFR 625)](#).

The Winter 2024 Peer Exchange focused on considerations for aligning TAM activities with other FTA related requirements (including but not limited to NTD reporting, Public Transit Agency Safety Plans [PTASPs], and incorporating many agencies' data into MPO and statewide plans). Participants included six transit agency and regional representatives who manage transit assets or otherwise contribute to fleet management planning and related practices from the following four organizations:

- Charlotte Area Transit System (CATS)
- Houston METRO
- Maryland Transit Administration (MTA)
- Southern California Association of Governments (SCAG)

The goals of this peer exchange were to:

1. Promote peer-to-peer education and collaboration around effective practices in aligning TAM activities with other FTA requirements;
2. Support transit agencies and other relevant stakeholders with understanding that aligning planning horizons can help streamline data collection and asset management processes; and

3. Support agencies with aligning their TAM activities with agency goals beyond traditional TAM planning.

This document highlights the key takeaways in aligning TAM activities with other FTA related requirements as described by participants and summarizes perspectives shared during the facilitated discussion.

Frequency of Relevant FTA Reporting

TAM Plans: Agencies are required to update their TAM plan in its entirety at least once every four years. The first compliant TAM plans were due October 2018, and the first round of updated TAM plans were due by October 2022. The next TAM Plan update must be completed by October 2026.

State Transportation Improvement Program (STIP) and Transportation Improvement Program (TIP): Each state is required to develop a statewide transportation improvement program (STIP) covering a period of at least four years. The TAM plan cycle should coincide, to the extent possible, with the State and metropolitan planning cycle for the development of the STIP and TIP.

National Transit Database (NTD): Annual Report Submission. FTA determines each agency's NTD report due date based on the agency's fiscal year end date. Reporters submit their Annual Report four months after their fiscal year ends.

Public Transit Agency Safety Plan (PTASP): Each transit agency must annually certify via FTA's Certifications and Assurances process that its safety plan meets the requirements of the final rule. PTASP must be kept on file for at least 3 years.

Participants

Name	Agency	City and State
Christopher Ingram	Charlotte Area Transit System (CATS)	Charlotte, NC
Alberto Aviles	Houston METRO	Houston, TX
Alexi Miller	Houston METRO	Houston, TX
Mariyana Tozeva	Maryland Transit Administration (MTA)	Baltimore, MD
Shelbrea McCleese	Maryland Transit Administration (MTA)	Baltimore, MD
Priscilla Freduah-Agyemang	Southern California Association of Governments (SCAG)	Los Angeles, CA

Introduction

Participants provided short introductions of their organizations and experiences with aligning TAM planning activities. They identified several agency-specific successes and challenges with aligning TAM horizons.

These organizations have a number of varying characteristics that allowed for diverse peer-to-peer knowledge sharing. The group included local transit agencies as well as organizations that coordinate with several providers and manage TAM efforts regionally.

Each organization brought a unique perspective on how to integrate TAM activities with other agency tasks, offered suggestions for performing data collection, and highlighted aspects to consider for data reporting. The experiences they shared during the peer exchange reflected different political and funding environments, as well as the unique asset maintenance and investment needs they face today and anticipate facing in the future.

Areas of success for some agencies were challenges for other agencies. By addressing these challenges and building on the identified successes, agencies can enhance their asset management practices and streamline data collection and reporting across various FTA requirements.

Key Takeaways

- Data Collection and Collaboration:
  - Agencies are improving methods in which they are collecting and analyzing data through collaboration with relevant departments (maintenance, finance, etc.) and TAM staff.
  - When performing condition assessments, agencies can collect both the required information for FTA as well as additional data to streamline their processes.
  - Strategies for effective NTD reporting include developing a data collection and management system, using technology and automation (where appropriate and applicable), and leveraging available resources.
  - There are efforts to create asset management processes that stay with the organization rather than with individuals.
  - Agencies are working to ensure data reflects and informs its intended purpose. Data should be reliable and able to assist decision-making.
- Safety Reporting

- o TAM intersects with PTASP when mitigation for a safety risk affects an asset or asset management.
  - o Regional planning organizations (i.e. Group TAM Plan sponsors or MPOs) may have the ability to look across a region and see if the safety issues in one service area are similar or different in another area.
  - o Training TAM staff in Risk Analysis and PTASP can help to understand how safety can influence asset management.
  - o Agency TAM and Safety teams can help provide guidance to one another in their data collection processes.
- Enterprise Asset Management (EAM) Systems:
  - o Agencies are integrating EAM systems to manage their asset data. EAMs were identified as a useful tool for aiding in justification for asset replacement and maintenance planning. They can also help clarify roles and responsibilities associated with data collection and reporting.
  - o Training and capacity-building efforts are needed to ensure staff can effectively manage and utilize asset management systems.
- Zero Emission Vehicles/ Zero Emission Transition Plans:
  - o Achieving zero emissions requires acquiring new assets and adopting new technologies. Agencies are developing plans to transition to zero-emission fleets.
  - o The use and maintenance of these assets is different from that of the existing fleet.
  - o Some agencies are exploring innovative solutions for Zero Emission fleet, and specifically for Battery Electric Buses (BEBs), including battery leasing and repurposing degraded batteries for electricity storage.
- Funding:
  - o Some agencies have experienced an increase in funding for capital investments, but operational funding has not increased. This is leading to challenges in maintaining and expanding service.
  - o There is a high cost to acquiring zero emission vehicles and building the necessary facilities and infrastructure that can be required.
- Regulatory Compliance and Reporting
  - o Agencies face difficulties in keeping up with regulatory changes and incorporating new requirements into their plans and reporting processes, including incorporating these changes into an MPOs long-range plan (Regional Transportation Plan and Sustainable Communities Strategies, RTP/SCS).
  - o There is a desire for higher-level guidance on prioritizing safety projects and integrating them into long-term planning.

Summary of Discussion

Agencies can employ various approaches to TAM data collection and management to allow their data to better align with multiple FTA reporting requirements. These ideas can streamline efforts at the time of data collection in preparation for various reporting requirements.

Communication and Processes

In some agencies, there are dedicated TAM staff that perform data collection; other agencies have departments such as finance take the lead. Participants noted it can be challenging when departments or groups work in silos until it becomes necessary to collaborate. Another challenge is those being asked to respond to questions regarding NTD are not always those who initially submitted the data.

One solution discussed to combat these issues was to create a protocol that stays with the agency as opposed to with an individual. Documentation is key, even if transitions aren't actively happening. Another basic place to begin is to create a spreadsheet of all modes for NTD. When performing condition assessments, agencies can collect information needed for FTA as well as additional data to minimize and streamline their processes. The data can be linked with ArcGIS by agency staff or outside contractors. Agencies and organizations can host discussions on how the data was collected and what can be done to make sure concerns are heard through the TAM Program and shown in the scores.

It is important to continue to leverage relationships to streamline target-setting processes. Group Plan sponsors can try to make the process easier for the transit providers through coordination. Agencies should coordinate with stakeholders to refine data collection processes for target setting and scenario planning. Agencies can explore processes to incorporate performance measures into capital project prioritization and Transportation Investment Plans (TIPs). One organization stated they work hard to encourage performance monitoring for Federal Transportation Investment Plan (FTIP) data.

Condition Assessment

Agencies need to decide how much of the process they want to handle directly. They must choose whether the TAM department will personally inspect each asset or if Asset Management should oversee other departments and give them the tools to conduct inspections. EAMs can be used to help clarify roles and responsibilities within data collection and reporting, as well as require people to report data.

An agency's condition assessments may benefit from hiring TAM staff with maintenance experience for the relevant assets. Having a perspective outside of the current maintenance staff could be beneficial because it would avoid any internal bias.

Safety and PTASP

Establishing a relationship between TAM and PTASP can benefit agencies. Agencies noted there is a strong relationship between TAM and PTASP safety reporting and discussed how safety measures are tied to State of Good Repair (SGR).

Agency TAM and Safety teams can help provide guidance to one another in their data collection processes. Recommended strategies for aligning TAM and PTASP include joint TAM and Safety reviews for projects, TAM staff training in Risk Analysis and PTASP, TAM involvement in Safety department and Safety committees, verifying and working with in-house data systems (coordinate risk matrix with Safety department), understanding how safety can influence projects and priority, and having TAM and Safety staff report observations of risks to one another.

TAM intersects with PTASP when mitigation for a safety risk affects an asset or asset management. SGR, through asset management, can be incorporated into the PTASP. One agency uses a safety score to integrate these components. As another example, agencies can mitigate assaults on transit workers by retrofitting barriers into the existing fleet or have barriers added during procurement. This has a direct impact on fleet management, connecting TAM and PTASP.

Transit agencies typically consider safety targets based on their own data and operations from a singular agency viewpoint. Group Plan sponsors and MPOs may have the ability to look across a region and see if the safety issues in one service area are similar or different in another area. One agency has been able to incorporate more transit safety questions in the FTIP database and is working on increasing synergy with Transit Safety Targets.

Some agencies are challenged with assigning dollar amounts to projects based on safety. One participant's recommendation was to consider the risk matrix (e.g. if there is a facility with a catastrophic issue, the matrix can help prioritize the projects and rank them without putting a dollar amount on it). Organizations should consider what level of safety risk they are comfortable with. One organization identified their desire for higher level guidance on how to account for this issue in a long-range plan. A suggestion was provided that they may be able to list the projects in order of risk. It was noted that users can choose to modify the TERM-Lite backlog priority score to weigh safety on a higher scale. One agency is working on an Asset Information Management (AIM) system that focuses on safety but also has place markers for the Americans with Disabilities Act (ADA).

NTD Reporting

Since NTD and TAM data are related, data collected through NTD includes transit asset information that can inform TAM plans. Agencies can review data from peer agencies and consider how that can enhance their TAM plan. Strategies for effective reporting include understanding the requirements, developing a data collection and management system, documenting and developing SOPs, using technology and automation (where appropriate and applicable), and leveraging available resources. There are NTD training courses and data products that support NTD available through FTA.

Some NTD reporting challenges discussed include keeping up with major changes such as repairs, replacements, and major overhauls, as well as working with outside leased fleet vendors. Other difficulties posed were adapting to NTD changes or updates, collecting data, and building automation systems. Ensuring that operating departments provide updated data is a crucial element for accurate reporting.

Recommended strategies discussed for improving NTD reporting include attending the National Transit Institute (NTI) FTA NTD training, understanding the data flow and working closely with data owners, using past data to understand changes and predict future trends, and tracking agency progress.

Data Collection

Data collection uncovers the quality of an agency's asset inventory. It often highlights agency silos when data is inconsistent, missing, or not regularly updated. These data gaps present opportunities to enhance an agency's asset management practices and achieve its overall goals. Some agencies discussed that their data is often housed in separate asset management systems based on the asset type. Connecting asset managers with asset owners makes an impact in ensuring the asset data is reliable and up to date. Data quality is affected by the person who inputs the data. It is important to encourage those who enter the data to provide all relevant details to increase data quality so that more informed decisions can be made. Securing funding for better assets is the end goal for asset owners, while better data is the key to getting there for asset managers.

Data collection for transit assets can be used for numerous reports and plans. Some additional rules and targets that participants coordinate in addition to the TAM rule are the MAP-21 established MPO planning rule, setting regional targets in Regional Transportation Plans (RTPs), monitoring progress in FTIPs, and state and regional clean transit rules. Records coming from multiple sources often have asset hierarchies that are incompatible across a region when feeding into larger cohesive plans. To optimize collaboration with their MPO or Group Plan

sponsor, agencies should involve them in the data collection process. Regular and ongoing coordination and collaboration can help clarify their goals and aim for standardization. Engagement between transit organizations enables them to learn from each another by sharing methodologies, data collection processes, long-term forecasting methods, and incorporating targets into planning. One organization identified transparency through the FTIP as essential.

The FTA provides a Facility Condition Assessment Guidebook with methodologies for transit agencies to measure and report asset condition. The guidebook outlines condition assessment procedures for facility components and subcomponents in order to separate asset components and allow for separate ratings throughout a facility. One agency stated that in addition to identifying the subcomponents, they employ hierarchies in their rating system and consider which assets may need complete replacement and which may only need repair.

Data Systems

Agencies utilize various platforms, including EAMs, to manage their asset data. Comprehensive software should tell every side to the asset management story of an organization. Some of the participants were in the initial stages of integrating EAMs into their TAM programs.

One agency identified that EAMs can serve as a resource to justify asset replacements. Another agency discussed their intention to use the implementation of an EAM to define clear roles and responsibilities in data reporting. Participants expressed interest in FTA's TERM-Lite analysis tool and whether it would be made into a more comprehensive resource in the future. It is currently under review whether the tool will be updated, or new tools provided. FTA is working to evaluate and make recommendations on TERM-Lite.

Asset Investment Planning (AIP) software can help grow and expand asset information processes and capabilities. It can help agencies to move beyond compliance to action and integration, assisting in making informed choices. Recommended strategies for TAM AIP were to identify internal data that is easily accessible and reliable, have an established process before moving on to a new system, build around the largest asset portfolio, and plan for integration to EAM.

Zero Emissions/Electrification

Zero Emissions Transition Plans contain information for future transition of fleet and facilities to 100% zero-emissions. In order to reach these goals, new assets and new technologies must be acquired. At some agencies, maintenance and repairs must be done externally due to the lack of in-house staff with proper training to repair these assets. In addition, Zero Emission Buses (ZEBs) sometimes do not meet full-service needs for routes; therefore, additional buses may be needed. Testing can be done on an agency level to pilot Diesel to ZEB replacement. BEBs require

consideration for battery replacement and recycling, which is different from traditional internal combustion engine vehicles. Potential solutions suggested were to lease batteries instead of buying them and to use degraded batteries for electricity storage. The high cost of acquisition and maintenance of ZEBs in addition to the charging of BEBs makes the path to zero emissions challenging. Hybrid vehicles may be an interim avenue for exploration due to budget constraints.

Agencies discussed safety considerations for Zero Emissions fleets and how they can better incorporate the deployment of zero emissions into safety. It was noted that some vehicles are safer for public health by not contributing to particulate emissions, or noise pollution. Battery combustion events have occurred and considerations for battery placement are affected. There are some aspects not as readily apparent to consider (e.g. the weight of the vehicle can affect collisions or wear and tear on the road); once unforeseen events occur, agencies should think about them from a safety perspective.

Conclusion

The peer exchange provided an opportunity for TAM professionals to engage in discussion with other agencies who are facing similar challenges and opportunities. Conversations throughout the event highlighted ideas and methods for aligning TAM activities with other FTA requirements to enhance reporting efficiency and effectiveness. Participants had the chance to validate their current approaches to TAM, gain clarity on outstanding issues, and were exposed to alternate methodologies that some plan to integrate into their practices. They also shared their visions of how TAM fits into and supports broader agency-wide goals. By continuing to collaborate and share best practices, transit agencies can work to improve their asset management processes.

By hosting the peer exchange, FTA was able to better understand how agencies approach aligning data across FTA reporting requirements, particularly how agencies approach data collection and reporting processes. FTA will use the insights from this peer exchange to shape technical assistance offerings, and the lessons learned will inform the development of future resources and peer learning opportunities. FTA is committed to bring transit agencies together in a variety of settings to share experiences and to use that discussion and learning to benefit the asset management community.

Related Resources

- [NTI FTA](#) NTD Training
- [Public Transportation Agency Safety Plans Update](#)
- [Facility Condition Assessment Guidebook](#)
- [Guidebook for Deploying Battery Electric Buses](#)
- [Procuring and Maintaining Battery Electric Buses and Charging Systems – Best Practices](#)
- [Transit at the Table III](#)
- [FTA Website – TAM Performance Measures](#)
- [TERM-Lite](#)