



COLORADO

Department of Transportation

Transit Asset Metrics Transit and Rail Advisory Committee

July 1, 2020



TAM Rule and Group TAM Plan

- **October 2016:** FTA's Transit Asset Management (TAM) Rule established asset management **planning and reporting requirements** for recipients and subrecipients of 49 U.S.C. Chapter 53 funds that own, operate, or manage capital assets in the provision of public transportation
 - Identified three capital asset categories (rolling stock, equipment, and facilities) and established State of Good Repair (SGR) performance measures for each
- **November 2018:** Colorado DOT Transit Asset Management Group Plan (Group TAMP) was completed
 - Included 53 small urban and rural public transportation providers offering combo of fixed-route, demand response, and other specialized transportation services throughout State
 - Group TAMP incorporated FTA's SGR performance measures and set targets for 2019



SGR Performance Measures

Asset Category	Performance Measure
Rolling Stock	The percentage of revenue vehicles within an asset class that have either met or exceeded their useful life benchmark (ULB). ULB is the age at which an asset has reached the end of its economic useful life, specified in terms of asset age, mileage, and/or other factors.
Equipment	The percentage of service and maintenance vehicles (non-revenue) that have either met or exceeded their ULB.
Facilities	The percentage of facilities within an asset class rated below 3.0 on the FTA Transit Economic Requirements Model (TERM) scale.



2018 Group TAMP SGR Performance Targets

Asset Category	Asset Class	Inventory	Current % Beyond SGR	2019 Target
Revenue Vehicles	Aerial Tramway	71	80.3%	41%*
	Bus – Large	286	19.9%	20%
	Bus – Medium	80	15%	14%
	Cutaway – Large	88	18.2%	15%
	Cutaway – Small	243	28.8%	18%
	Van/Minivan	254	26%	2%
	Automobile	64	35.9%	8%
Service Vehicles	Trucks & Other Rubber Tire Vehicles	37	13.5%	11%
	Automobiles	23	47.8%	4%
Facilities	Support Facilities	64	15.6%	11%
	Passenger Facilities	190	2.1%	2%
Equipment	Non-vehicle equipment	23	n/a	n/a



Transit Asset Performance Reporting

- Group TAMP agencies and CDOT report annually to the National Transit Database (NTD)
 - Inventory of revenue service vehicles, non-revenue service vehicles (equipment), and facilities for report year
- NTD calculates performance for report year based on data submitted
- CDOT sets performance targets for next report year and (new in 2019) provides a Narrative Report discussing targets and progress towards improving SGR of the small urban and rural transit assets



Revenue Vehicles Transit Asset Performance & Targets

Percent of Asset Class Beyond SGR

	2018 Performance	2019 Target		2019 Performance	2020 Target
AB - Articulated Bus	66.67	18.80	↓	0.00	0.00
AO - Automobile	26.67	8.00	↑	21.43	28.00
BR - Over-the-road Bus	16.67	18.80	↓	17.95	17.50
BU - Bus	19.05	18.80	↑	24.81	26.00
CU - Cutaway	26.09	18.00	↑	24.61	23.00
MV - Minivan	36.61	2.00	↑	23.85	21.50
OR - Other	13.04	13.00	↓	12.50	0.00
SB - School Bus	100.00	N/A		100.00	100.00
SV - Sports Utility Vehicle	50.00	8.00	↑	40.00	40.00
TR - Aerial Tramway	83.82	41.00	↑	83.82	86.76
VN - Van	12.84	2.00	↑	13.79	17.50



Revenue Vehicles Transit Asset Performance & Targets

Percent of Asset Class Beyond SGR

	2018 Performance	2019 Target	2019 Performance	2020 Target
AB - Articulated Bus	66.67	18.80	↓ 0.00	0.00
AO - Automobile	26.67	8.00	↓ 21.43	28.00
BR - Over-the-road Bus	16.67	18.80	↑ 17.95	17.50
BU - Bus	19.05	18.80	↑ 24.81	26.00
CU - Cutaway	26.09	18.00	↓ 24.61	23.00
MV - Minivan	36.61	2.00	↓ 23.85	21.50
OR - Other	13.04	13.00	↓ 12.50	0.00
SB - School Bus	100.00	N/A	█ 100.00	100.00
SV - Sports Utility Vehicle	50.00	8.00	↓ 40.00	40.00
TR - Aerial Tramway	83.82	41.00	█ 83.82	86.76
VN - Van	12.84	2.00	↑ 13.79	17.50



Revenue Vehicles Transit Asset Performance & Targets

- 2020 targets were derived from an analysis of
 - 2019 NTD performance data
 - number of vehicles in each asset class
 - number and type of vehicles retired in 2019
 - number and type of vehicles that will reach ULB in 2020
 - COTRAMS data
 - number and type of vehicles awarded to Group TAMP participants through Consolidated Calls for Capital Projects (CCCP) in 2018, 2019, and 2020
 - number and type of vehicles accepted and added to the fleet in 2019 and to-date in 2020
 - funding program year and amount for vehicles awarded and accepted



Revenue Vehicles Transit Asset Performance & Targets

Percent of Asset Class Beyond SGR

	2018 Performance	2019 Target	2019 Performance	2020 Target
AB - Articulated Bus	66.67	18.80	0.00	█ 0.00
AO - Automobile	26.67	8.00	21.43	↑ 28.00
BR - Over-the-road Bus	16.67	18.80	17.95	↓ 17.50
BU - Bus	19.05	18.80	24.81	↑ 26.00
CU - Cutaway	26.09	18.00	24.61	↓ 23.00
MV - Minivan	36.61	2.00	23.85	↓ 21.50
OR - Other	13.04	13.00	12.50	↓ 0.00
SB - School Bus	100.00	N/A	100.00	█ 100.00
SV - Sports Utility Vehicle	50.00	8.00	40.00	█ 40.00
TR - Aerial Tramway	83.82	41.00	83.82	↑ 86.76
VN - Van	12.84	2.00	13.79	↑ 17.50



Revenue Vehicles Transit Assets in 2019

- **Total Vehicles**
 - 1,310 → 371 (28%) at ULB
 - 105 vehicles added (estimate based on 2019 manufacture year)
- **Retired Vehicles**
 - 70 → 45 (64%) at ULB
 - 25 retired vehicles had not met ULB!
- **Active Vehicles (at the end of 2019)**
 - 1,240 → 326 (26%) at ULB
 - 83 more vehicles will reach ULB in 2020!

Started 2020 with 1,240 vehicles → 409 (33%) at ULB



Revenue Vehicles Data Summary

- **SGR of Fleet**
 - Pace of new vehicles added and old vehicles retired is not keeping up with pace of active vehicles meeting ULB → starting 2020 with greater percentage of vehicles at ULB than 2019
 - NTD requires spare vehicles be reported as active: how many old vehicles are currently being kept as spares?
- **Vehicle Awards in 2018, 2019, and 2020**
 - 52 buses, cutaways, minivans, over-the-road buses & vans per year (avg.)
 - \$9.33m in federal/state funds per year → \$2.11m in FASTER per year (avg.)
- **Funding for Accepted Vehicles in 2019**
 - \$14.6m in federal/state funds → \$4.13m in FASTER funds
 - 2017 - \$2.25m → 10 vehicles
 - 2018 - \$4.93m → 34 vehicles
 - 2019 - \$7.5m → 21 vehicles



Revenue Vehicles Impacts of Deferred Funding

- Group TAMP assumed \$12m in federal/state funds per year (\$15m total funds) for all capital assets
 - Actual awards have been \$9.33m in federal/state funds per year (\$11.5m total funds) for revenue vehicles (avg.)
- \$33m in federal/state funds per year in the last two CCCPs
 - \$4.1m in competitive FASTER funds
 - \$3.1m (2019), \$38,084 (2020), and \$3.2m (2021) FASTER funds to Group TAMP agencies
 - 13 vehicles + 4 local match (2019), 2 local match (2020), 12 vehicles + 4 local match (2021)



Revenue Vehicles Impact of Deferred Funding

What is impact on revenue vehicle SGR if \$5m to \$10m in funding is deferred in 2021 CCCP?

- Translates to 24% reduction in new vehicles (out of 52 on average), up to 28% reduction if agencies are unable to purchase new vehicles without local match assistance
- Potentially decrease the revenue vehicle SGR by 3%, to 36% (wildly speculative)

Impact of funding deferral would not be felt immediately

- Group TAMP agencies are still spending FASTER funds from 2019 and 2018
- 2021 FASTER funds haven't been spent yet

There's time to mitigate impacts from deferred funding

- Ramp up disposal of old vehicles
- Potential for other funds to fill the gap

Transit Asset Management Next Steps



- Increase the rate of old vehicle disposals → find out from agencies if there are barriers to timely completion of this process
- Update unconstrained prioritization list in Group TAMP to remove retired vehicles and compare to awards and accepted vehicles → determine if there are any agencies falling too far behind on maintaining fleet SGR
- Review NTD data with agencies and reconcile COTRAMS data → discuss ways to improve the tracking and reporting processes to reduce duplication of efforts and improve accuracy
- Work with Capital Programming Specialist and Programming Unit on upcoming CCCP
- Update PD-14 for consistency with the Group TAMP and compliance with FTA's transit asset management rules at 46 CFR Parts 625 and 630.



COLORADO

Department of Transportation

Thank you

Audrey Dakan

Transit Asset & Performance Planner

CDOT | Division of Transit & Rail

audrey.dakan@state.co.us | 303.757-9771