



**Massachusetts Bay
Transportation Authority**

Safety Report July 2022

BUS

SAFETY PERFORMANCE INDICATORS



See Notes

Bus - Safety Performance Indicators																			
Bus	2021 Monthly Target	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	2021 Target	2021 Total	2022 Monthly Target	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	2022 Target	2022 YTD
Fatalities - Total ¹	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NTD Reportable Safety Events - Total ²	12	4	9	10	7	2	13	142	89	10	8	4	7	7	8	6	8	120	48
NTD Reportable Safety Events - Rate per million revenue miles	6.00	2.00	4.29	5.33	3.46	1.02	6.65	6.00	3.71	5.21	4.26	2.37	3.63	3.83	4.35	3.26	4.45	5.21	3.75
NTD Reportable Injuries - Total ²	31	23	25	26	20	20	35	367	264	27	18	21	19	21	18	22	19	324	138
NTD Reportable Injuries - Rate per million revenue miles	15.50	11.53	11.93	13.86	9.90	10.22	17.90	15.50	11.01	14.00	9.59	12.42	9.86	11.50	9.80	11.95	10.57	14.00	10.78
Customer Injuries - Rate per million passenger trips	2.95	2.51	2.40	3.31	2.62	2.23	4.71	2.95	2.99	2.93	2.18	3.30	2.74	2.57	2.29	2.16	1.96	2.93	2.44
Collisions - Rate per million revenue miles	85.63	57.64	59.18	73.02	60.37	58.27	64.44	85.63	58.60	57.42	74.58	79.83	77.88	63.51	81.08	65.75	60.09	57.42	71.82
with Vehicle - Rate per million revenue miles	N/A	43.60	46.29	59.16	48.00	47.53	48.59	N/A	45.08	44.18	59.66	61.50	60.75	53.11	64.21	52.71	46.74	44.18	56.97
with Object - Rate per million revenue miles	N/A	11.53	8.59	9.59	9.40	9.71	11.25	N/A	9.93	9.73	11.72	14.78	13.50	7.67	14.15	9.78	11.13	9.73	11.80
with Person - Rate per million revenue miles	N/A	0.50	3.34	1.07	2.47	1.02	1.53	N/A	1.54	1.51	0.53	1.77	2.08	1.10	1.09	1.09	0.00	1.51	1.09
with T Vehicle - Rate per million revenue miles	N/A	2.00	0.95	3.20	0.49	0.00	3.07	N/A	2.04	2.00	2.66	1.77	1.56	1.64	1.63	2.17	1.11	2.00	1.80
Reportable Smoke/Fire Incidents	1	3	2	1	1	3	2	15	16	1	1	0	0	1	2	0	3	15	7
Mean Miles between Mechanical Failures	18,000	32,018	23,284	29,301	26,073	22,281	31,775	18,000	28,638	25,000	18,531	22,047	26,099	25,623	25,199	27,128	23,317	25,000	23,751



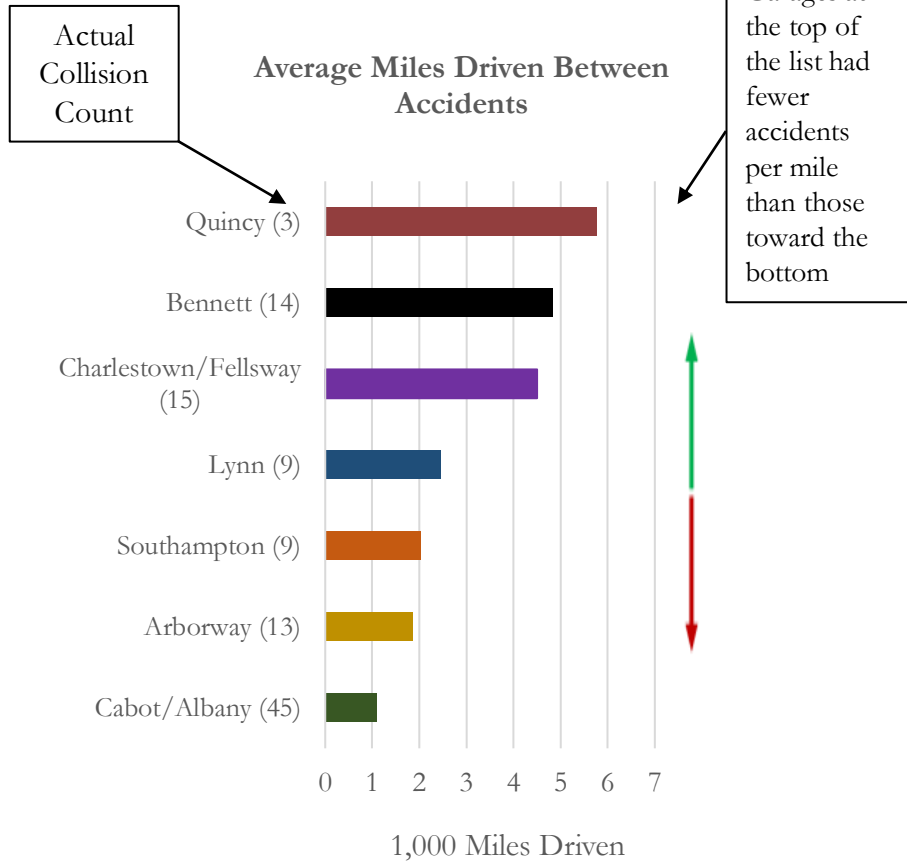
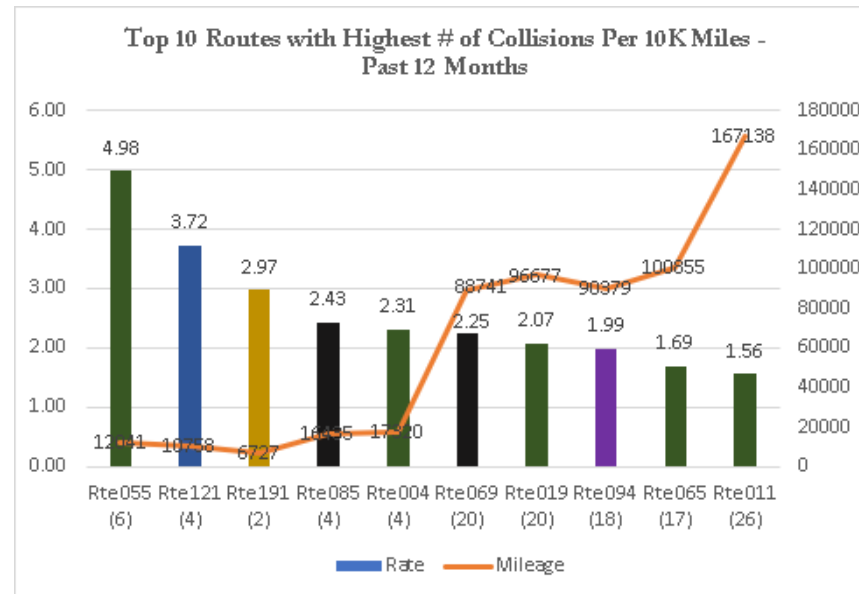
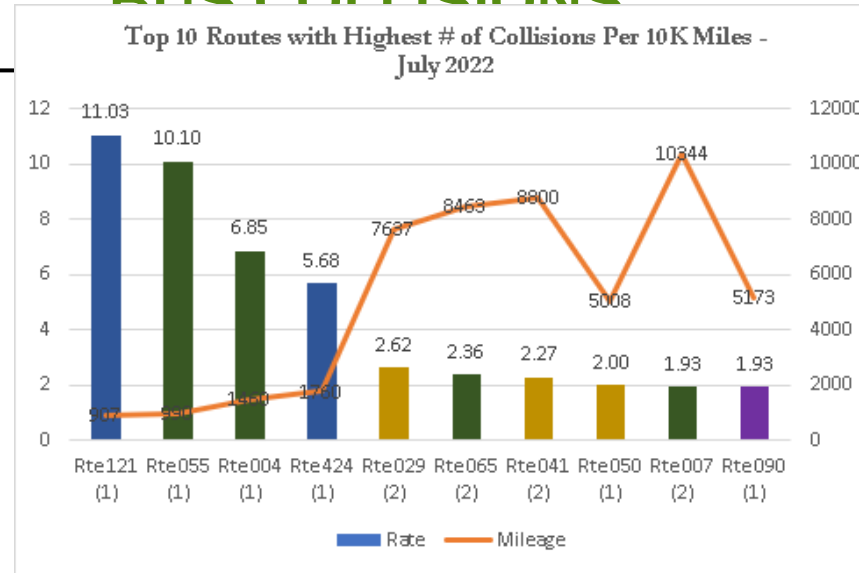
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The colors of the Routes with Highest # of Collisions correspond to Garage colors in the graph on the far left.

Top 10 Locations with Highest # of Collisions Past 12 Months by Type

See Notes

Cabot/Albany - Bus Garage	15
Collision - with Object	9
Collision - with T Vehicle	6
Nubian Station	11
Collision - with Object	5
Collision - with Vehicle	2
Collision - with Person	2
Collision - with Bicyclist	1
Collision - with T Vehicle	1
Ashmont Station	9
Collision - with Vehicle	6
Collision - with Object	3
Fields Corner Station @ Red Line	5
Collision - with Object	4
Collision - with Vehicle	1
Maverick Station	5
Collision - with Vehicle	4
Collision - with Object	1
Warren St @ ML King Blvd	5
Collision - with Vehicle	4
Collision - with T Vehicle	1
Haymarket Station	5
Collision - with Vehicle	4
Collision - with T Vehicle	1
Washington St @ Tufts Med Ctr	5
Collision - with Vehicle	3
Collision - with Bicyclist	1
Collision - with Object	1
Mattapan Station - South Busway	4
Collision - with Vehicle	3
Collision - with Object	1
Ruggles Sta - Upper Level	4
Collision - with Vehicle	2
Collision - with Object	2



RAIL



SAFETY PERFORMANCE INDICATORS - Heavy Rail

See Notes

Heavy Rail - Safety Performance Indicators																			
Heavy Rail	2021 Monthly Target	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	2021 Target	2021 Total	2022 Monthly Target	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	2022 Target	2022 YTD
Fatalities - Total ¹	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
NTD Reportable Safety Events - Total ²	2	1	2	3	1	3	2	24	24	2	0	3	1	2	5	2	2	24	15
NTD Reportable Safety Events - Rate per million revenue miles	1.00	0.51	1.00	1.62	0.52	1.63	1.04	1.00	1.09	1.00	0.00	1.78	0.52	1.09	2.75	1.18	1.31	1.00	1.22
NTD Reportable Injuries - Total ²	18	13	12	13	25	19	17	221	184	16	23	18	18	23	17	16	14	195	129
NTD Reportable Injuries - Rate per million revenue miles	9.45	6.67	6.02	7.02	13.12	10.34	8.87	9.45	8.39	8.46	12.54	10.66	9.32	12.56	9.36	9.42	9.14	8.46	10.46
Mainline Revenue Train Derailments	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
Mainline Non-Revenue Train Derailments	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1
Yard Derailments	0	0	0	0	0	0	0	4	3	0	0	0	1	0	0	0	0	3	1
Maintenance Vehicle Derailments	0	0	0	0	1	0	1	7	4	0	0	1	0	0	3	0	0	5	4
Mean Miles between Mechanical Failures	47,000	48,344	51,118	40,399	29,975	39,987	42,484	47,000	44,617	47,500	26,193	33,891	43,898	51,980	73,942	66,535	41,019	47,500	42,997



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FIRE/SMOKE

CODE 1's TOTAL REPORTABLE INCIDENTS - July 2022

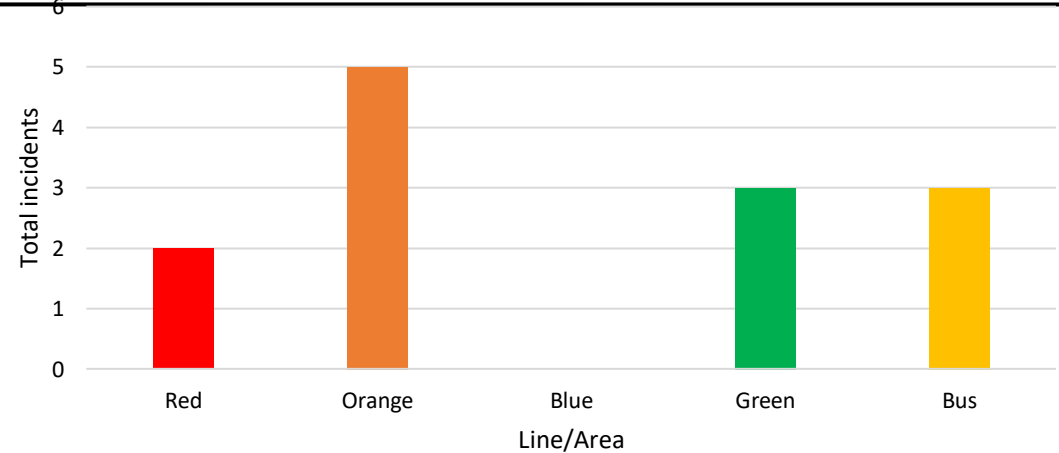
See Notes

Code 1 Reportable Incidents

- fire/smoke with 1 or more injuries requiring transport
OR
- fire/smoke that requires suppression but not evacuation
OR
- fire/smoke with an evacuation onto the ROW

Code 1 Non-Reportable Incidents

- fire/smoke with **NO** injury transport, suppression or evacuation



July Total Code 1: Fire/Smoke Incidents		
NTD Criteria	Non-Reportable	Reportable
Rail	10	10
Bus	14	3
July Total Incident	24	13
<i>2021 Total Monthly Avg</i>	<i>17.7</i>	<i>12.8</i>

July Total Reportable Incidents - AREA		
	Jul-22	Jul-21
Red	2	2
Orange	5	3
Blue	0	1
Green	3	0
Bus	3	3
TOTAL	13	9



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SAFETY HOTLINE REPORTING SYSTEM

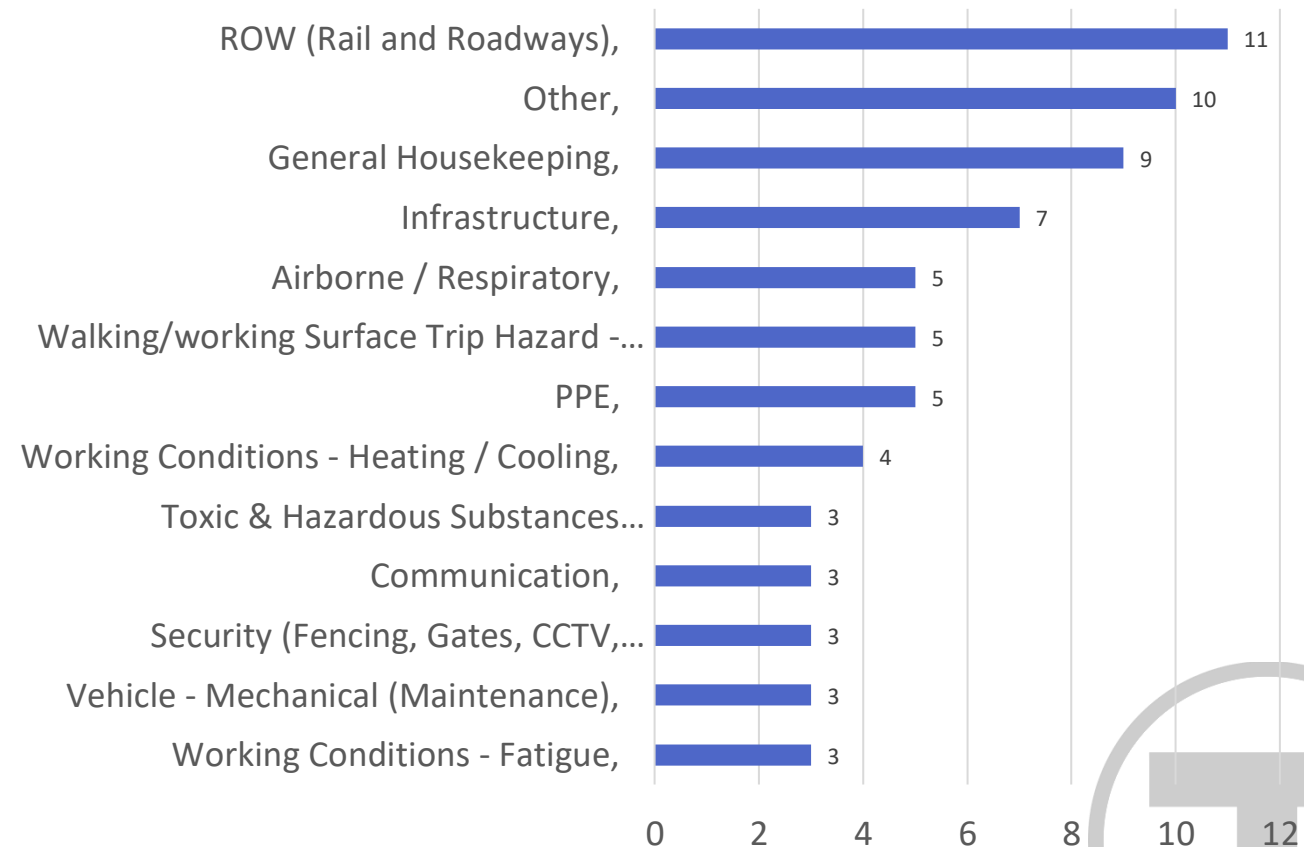
Safety Hotline Reporting Options

- Safety Hotline: (617) 222-SAFE/7233
- Safety Notification email: SafetyNotification@mbta.com
- Direct reporting to an MBTA Safety official
- Submitting Form B by email, to an MBTA Safety official, or by fax: (617) 222-5127

Month	Total Reports	Closed
May 2022	28	18
June 2022	19	10
July 2022	35	21
Total	82	49

As of 8/8/2022

Safety Hotline Reports by Hazard Types (3 or more):
Past 3 months



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SAFETY HOTLINE EXAMPLE REPORTS

I'M A
SAFE T
LEADER

See Notes

Below are examples of MBTA Safety Hotline reports received and investigated in July 2022.

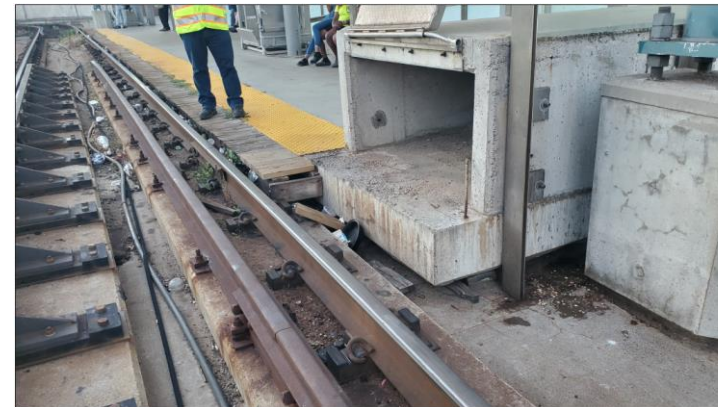
- REPORT – Bus Operator called in a Near-Miss incident with a bicyclist near Sullivan Square rotary. Due to a visual obstruction.

Complete – Safety visited the site. Plan and Schedule reached out to the City of Boston to cut down the tall grass.



- REPORT – A trolley was approaching the platform to service Ashmont station, and an unauthorized individual stuck his head out from under the concrete mobility-aided ramp on the Ashmont platform. The operator was able to safely bring the trolley onto the platform and notified OCC.

Pending - cation tape was utilized, and a WO was generated.



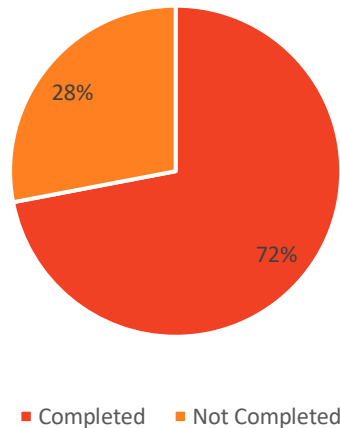
SAFETY INITIATIVES

SMS Fundamentals course

SMS Fundamentals Course

Announced in April 2021, the MBTA SMS Fundamentals Course, which is the baseline Safety Management System introduction for the MBTA Workforce has been released to all MBTA employees via the MassDOT LearningHub. The course objectives include defining SMS, reviewing SMS roles and responsibilities, identifying and reporting hazards, and how safety reports are managed. Below are the MBTA wide completion percentages and course completion by month.

Overall Completion



Course Completion By Month, All Time

