



Maryland DOT SSOA RBI Program

RTA Operational Alerts Data Analysis
May 2025



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Data Analysis Purpose

- RBI program compliance
- Leverage existing data sources
- Identify potential inspections
- Long-term trend analysis



Recent switch inspection

RTA Alert System Overview

- The RTA's internal agency-wide notification system

From: MTA Emergency Notification Alert <[REDACTED]>
Sent: Wednesday, March 5, 2025 12:37 PM
To: [REDACTED]
Subject: New - Light Rail Gate Arm Issue

A Light Rail Gate Arm Issue occurred at Location: Fuel Farm Road.
Date/Time: 03-05-2025 12:35.
Details: Malfunctioning gate arm has been reported at this location.
Train Number: 3.
Car or Equipment Number: 5050.
Direction: Northbound
Operator Badge Number: [REDACTED] 267.

SSOA Analysis Methodology

- Monthly Excel spreadsheet
 - Light Rail and Metro
 - Data Included:
 - Date/Time
 - Event Type
 - Location
 - Summary
 - Vehicle number
 - Etc.

Notification ID	Incident ID	Date & Time:	Sent On	Message Title	Incident Template	Occurred at:	Message Body
1961289836427728	1961289836431137	2/28/25 17:32	Feb 28, 2025 17:31:51 EST	New - Metro Manpower Issue	Metro Manpower Issue	Reisterstown Plaza	A Metro Manpower Issue occurred at Location: Reisterstown Plaza. The Delay is Between: Owings Mills. And: Johns Hopkins. Date/Time: 02-28-2025 17:32. Details: Due to lack of manpower Train 6 will not enter the mainline for revenue service as scheduled. Updates to follow.. Train Number: 6. Car or Equipment Number: 168 - 184. Direction: Eastbound. Operator Badge Number: 306. Hospital: . Medic: . Departments Telephoned: Management - Williams. Was Bus Bridge Requested?: . Was Supplemental Bus Service Implemented?: . Sent By: Tiffany Ward - 02-28-2025 - 17:31:50
1961392915639853	1961118037736571	2/28/25 15:50	Feb 28, 2025 17:17:31 EST	Update - Metro Lack of Equipment	Metro Lack of Equipment	Wabash Yard	This is an Update to the Metro Lack of Equipment Alert that occurred at: Wabash Yard. Incident Date and Time: 02-28-2025 15:50 Update Date and Time: 02-28-2025 17:18. More Details: Train 2 is out of service and reblocked for Train 10 at Rogers Avenue.. Was Bus Bridge Implemented?: .
1961118037733430	1961118037736571	2/28/25 15:50	Feb 28, 2025 15:50:07 EST	New - Metro Lack of Equipment	Metro Lack of Equipment	Wabash Yard	A Metro Lack of Equipment occurred at Location: Wabash Yard. The Delay is Between Metro Station: Owings Mills And Metro Station: John Hopkins Date/Time: 02-28-2025 15:50. Details: Train 10 will not enter the mainline at 3:46 p.m. for revenue service due to lack of equipment. Update to follow. Train Number: 10.

SSOA Analysis Methodology

New or Update	New
Incident Template	Light Rail Gate Arm Issue
Row Labels	
Aviation and Terminal Aviation and Elkridge	1
Beaver Dam	1
Camp Meade	1
Clare Street	
Eastern Avenue	
Ferndale	
Golden West and Shawan	1
Industry Lane	
McCormick and Schilling	
Pepper Road and Schilling	
Timonium	
Warren Road	
Waterview and Carr Lowery	
Grand Total	

Context menu options:

- Copy
- Format Cells...
- Refresh
- Delete PivotTable
- Sort
- Filter
- Subtotal "Occurred at:"
- Expand/Collapse
- Group...



Choose fields to add to report:

Search

- ☐ Notification ID
- ☐ Incident ID
- ☐ Date & Time:
- ☐ Sent On
- ☐ Message Title
- ☒ Incident Template
- ☒ Occurred at:
- ☐ Message Body
- ☒ New or Update
- ☐ Type of Mech Failure

More Tables...

Drag fields between areas below:

Filters	Columns
New or Update	
Incident Template	

Rows	Values
Occurred at:	Count of Occurred at:

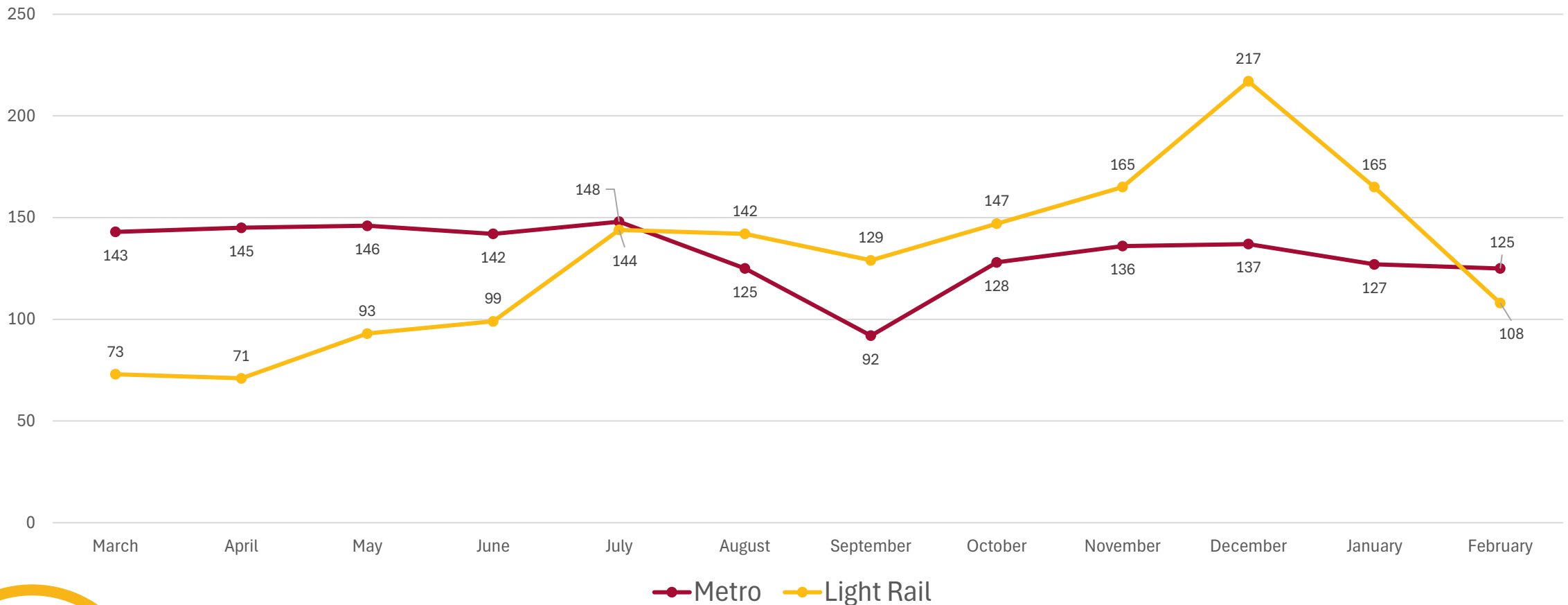
SSOA Analysis Methodology

- Long-Term Analysis
 - Dashboard updated monthly
 - Pivot charts
 - Trend analysis
 - Consistent/important alert types
- Short-Term Analysis
 - Newly identified patterns
 - Temporary/Seasonal

Total New Alerts* by Mode

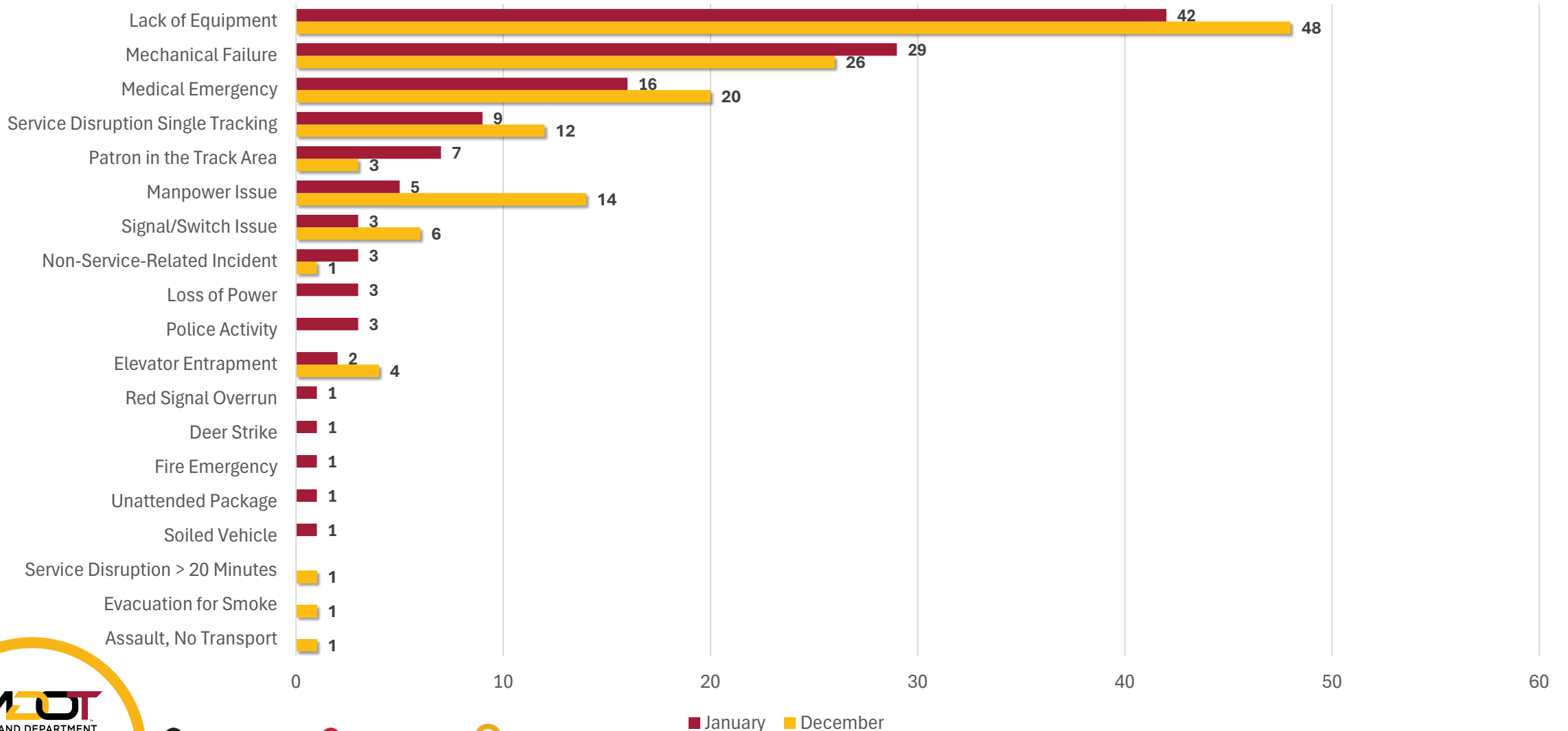
(March 2024 – February 2025)

*All rail transit notifications from OCC

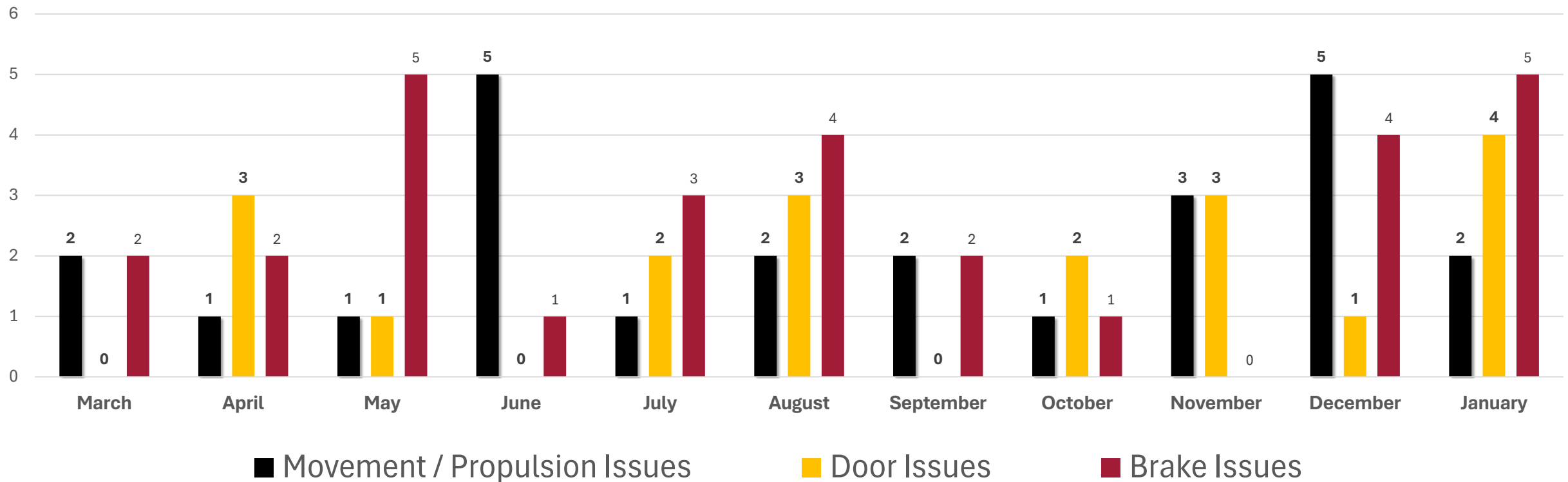


Metro Alert Type

(December 2024 vs. January 2025)

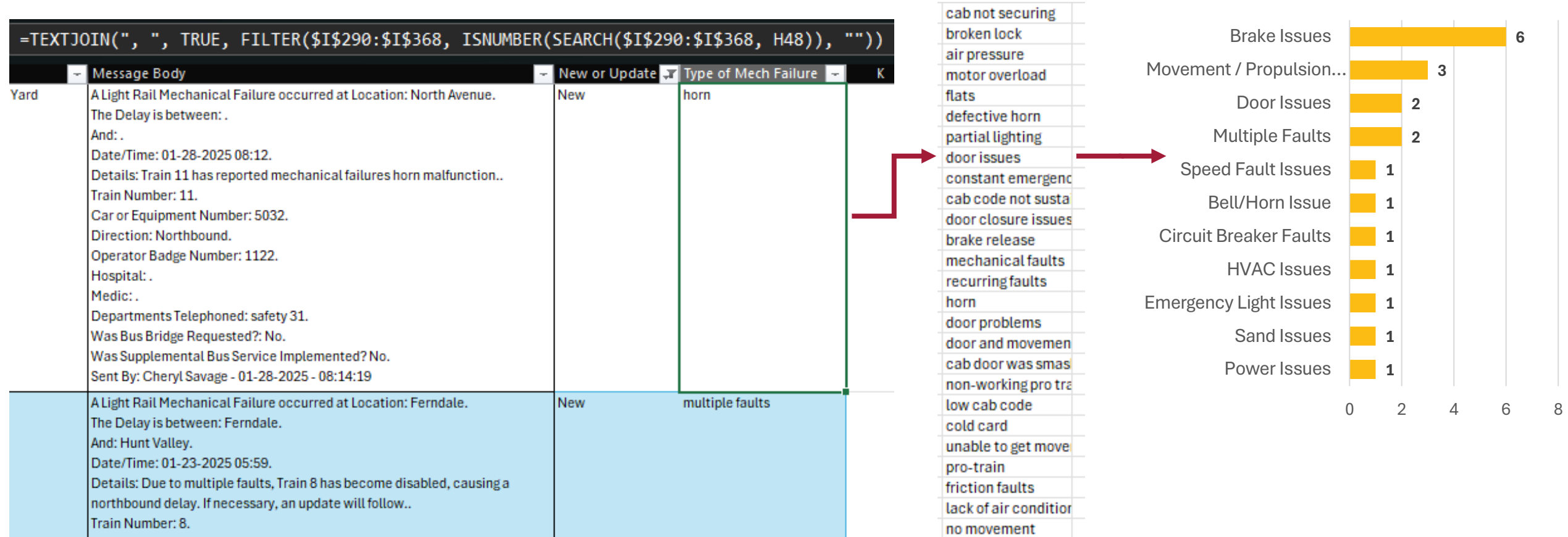


Trend Analysis – Vehicle Mechanical Failures



Challenges & Lessons Learned

- Determining Type of Mechanical Failure



Challenges & Lessons Learned

- Standardized Location Data

- ✓ 9:46pm between Owings Mills and Rodgers Ave.
- ✓ Charles Center
- ✓ East of Coldspring
- ✓ East of Owings Mills
- ✓ Johns Hopkins
- ✓ Johns Hopkins North
- ✓ Lexington Market
- ✓ Lexington Market Metro Station
- ✓ Lexington Markey Metro Station
- ✓ Milford Mill
- ✓ Mondawmin Metro
- ✓ Old Court
- ✓ Owings Mills
- ✓ Pen north
- ✓ Penn North
- ✓ Penn Station

- ✓ Portal
- ✓ Reisterstown Plaza
- ✓ Rogers Avenue
- ✓ Shot Tower
- ✓ The Portal Interlocking
- ✓ Upton
- ✓ Upton Station
- ✓ Wabash
- ✓ Wabash Train Yard
- ✓ Wabash Yard
- ✓ West Cold Spring and Wabash Avenue
- ✓ West Coldspring
- ✓ West Coldspring Metro

Comments or Questions?

