REGIONAL SAFETY ADVISORY COMMITTEE North Central Texas Council of Governments Microsoft Teams Virtual Meeting Friday, January 22, 2021 10:00 am – 12:00 pm

Click here to join the meeting

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Please <u>MUTE</u> your telephone during the meeting unless you are asking a question. The meeting will be recorded for summary purposes.

AGENDA

- 1. Approval of October 23, 2020 Meeting Summary Alonzo Liñán, RSAC Chair
- 2. Freight Vehicle Optimization Project Thomas Bamonte, Clinton Hail, NCTCOG
- 3. At-Grade Crossing Incidents Analysis Morgan Tavallaee, NCTCOG
- 4. Steps in Identifying Pedestrian Safety Corridor Networks Matthew Fall, NCTCOG
- 5. NCTCOG Proposed Safety Performance Targets Update Kevin Kroll, NCTCOG

6. Update Items

- a) Mobility Assistance Patrol Peer Review Results Kevin Kroll, NCTCOG
- b) CVE Equipment and Training Program RFP Update Kevin Kroll, NCTCOG
- c) Commercial Motor Vehicle Violations: Enforcement, Prosecution, and Reporting Training Update Michael Misantonis, NCTCOG
- d) Traffic Incident Management Call for Projects Status Update Camille Fountain, NCTCOG
- e) Traffic Incident Management Training During COVID-19 Camille Fountain, NCTCOG
- f) Traffic Incident Regional Police Academy Outreach Camille Fountain, NCTCOG
- g) Traffic Incident Management 2020 Self-Assessment Survey Activities Camille Fountain, NCTCOG
- h) Transportation Related Regional Conferences/Trainings Ricardo Serrano, NCTCOG
- i) Federal Register Notification: FHWA Seeks to Make MUTCD Updates Sonya Landrum, NCTCOG
- j) 2021-2022 RSAC Membership Appointments and Vice Chair Opportunity Reminder Sonya Landrum, NCTCOG
- 7. Safety-Related Reference Items, Topics or Training Courses Website
 - a) <u>Road Safety Study during the Pandemic Shows Risk of Death or Injury Is Greater When</u> <u>Roads Are More Clear, TTI</u>
 - b) Safer by Design: New TTI Tool Prioritizes Roadway Safety from the Get-Go, TTI

- 8. Upcoming Safety-Related Events and Training Announcements
 - a) 2021 Virtual TRB Annual Meeting January 2021
 - b) <u>2021 Transportation Alternatives Call for Projects Virtual Workshops</u> January 21-27, 2021
 - c) <u>Traffic Incident Management First Responder and Manager Course</u>:
 - o January 21 22, 2021, NCTCOG
 - \circ February 25 26, 2021, NCTCOG
 - o April 22 23, 2021, OFFSITE (Allen City Hall)
 - d) National Work Zone Awareness Week April 26-30, 2021
 - e) 2021 Virtual Lifesavers Conference April 26-28, 2021
 - f) 2021 Virtual Texas Traffic Safety Conference July 14-16, 2021
- 9. Other Business (Old or New): This item provides an opportunity for members to bring items of interest before the group.
- 10. Next RSAC Meeting: April 23, 2021 at 10 am.

Optimized Freight Movement Project: Introduction and Safety Implications

Regional Safety Advisory Council January 22, 2021

Thomas Bamonte Clint Hail Automated Vehicles Program



North Central Texas Council of Governments



DFW, an inland port

Freight hubs linked to expressways

Connections signalized

Optimizing truck flow = opportunity





Vehicle/Intersection Optimization

- Detection
- Classification
- Calculation
- Priority (or not)

Optimized Freight Movement Project Elements

- 1. <u>Technology</u> to optimize the flow of trucks from hubs to expressways
- 2. <u>Benefit-cost analysis</u> to identify where tech will do the most good:
 - Truck travel time savings
 - Improved traffic flow
 - Public health
 - Any adverse impacts—e.g., cross-traffic delay
 - Compare with alternative solutions—e.g., signal retiming
- 3. <u>Coordination</u> with local agencies/freight industry
- 4. Monitor performance and adapt

Intersection Safety and Large Trucks

Research on large truck crashes at intersections seems to indicate two things:

- 1. Most truck crashes occur away from intersections;
- 2. The proximity of geometric features—such as intersections—along arterials makes it difficult to isolate and analyze the relationship between accidents and the geometric features along the roadway.

Input from the group:

- For #1, above, what gives? If this is the case, how do we explain the stigma surrounding trucks as crash generators at intersections?
- Does #2 hold up according to the experts in the room? Are there more sophisticated analysis methods available or becoming available?

Contact

Thomas J. Bamonte Senior Program Manager, Automated Vehicles <u>tbamonte@nctcog.org</u> Twitter: @TomBamonte

At-Grade Rail Crossing Incidents in North Central Texas

Regional Safety Advisory Committee January 22, 2021



Morgan Tavallaee

FREIGHT NORTH TEXAS

INTRODUCTION

Injuries

Fatality

Injury

Graphs

Motorist

Actions

At-Grade Railroad Crossing

Any intersection of railroad track and roadway that occurs at the same level of elevation.

Problem

Generates opportunities for collisions between rail and automotive traffic when safety devices are ignored or fail to activate.

Visibilitv &

Weather

Fatalities

Data

Analysis



Summary

Questions

INTRODUCTION CONT'D.

Importance

Learning and understanding what causes these incidents can help identify steps that could be taken to mitigate the risk.

Data Source

All data in this presentation was sourced from the Federal Railroad Administration's (FRA) website.

Federal Railroad Administration





Questions

DATA ANALYSIS OVERVIEW

Quantitative Data

Years reviewed 2014-2019

Average number of incidents 37.5

Greatest number of incidents (45) in 2015

Fewest number of incidents (32) in 2017





DATA ANALYSIS OVERVIEW CONT'D.

Injuries

Main Causes

• Drivers fail to yield the right-of-way to oncoming train traffic

Visibilitv &

Weather

Fatalities

• Drivers disregard safety devices

Counties with Highest Rates of Incidents

Data

Analysis

- Dallas
- Tarrant
- Denton

Average Occurrence Observed

- Daylight hours
- Non-illuminated crossing
- Dry conditions

Fatality

Injury

Graphs

• No obstruction preventing a clear view of the track

Summary

Questions

• Involves a freight train

Motorist

Actions

VISIBILITY AND WEATHER

Effect of Visibility and Weather

- 56.4% of incidents occur at crossings that do not feature special lighting fixtures nor nearby streetlights
- **53%** of incidents took place during daylight hours

Fatalities

Visibility

& Weather

Data

Analysis

• Large majority of incidents occurred in clear, dry weather conditions

Inference

Introduction

Atmospheric conditions do not significantly contribute to the causation of crossing incidents.

Injuries

Fatality

Injury

Graphs

Motorist

Actions

Summary

Questions

FATALITIES

Fatality Rate

The number of deaths resulting from at-grade crossing incidents as a portion of the total number of incidents each year.

 From 2014-2019, the average fatality rate is roughly 10% or 3.83 annual fatalities

Fatality

Injury

Graphs

Motorist

Actions

Fatalities include highway vehicles, suicide, bicyclists or pedestrian involvement

Injuries

Visibility &

Weather

Fatalities

Data

Analysis

INJURIES

Injury Rate

The number of injuries resulting from an at-grade crossing incident as a portion of the total number of incidents each year.

• Due to interaction with at-grade crossings, 13.83 or 37% of injuries occurred on average per year

Injuries

Fatality

Injury

Graphs

Motorist

Actions

Summary

Questions

• Collisions commonly result in injuries rather than fatalities

Fatalities

Visibility &

Weather

Data

Analysis

INJURIES BY YEAR

INJURIES RESULTING FROM AT-GRADE CROSSING INCIDENTS



FATALITIES BY YEAR

NUMBER OF HIGHWAY-RAIL CROSSING FATALITIES



MOTORISTS ACTIONS

After reviewing the **Incident Reports**, a great majority could have been prevented by properly heeding warnings at the at-grade crossing signals.

Injuries

Fatality

Injury

Graphs

Motorist

Actions

Summary

Questions

Top 3 Reasons Incidents Occurred

- Going around the gates 18.9%
- Going through the gates 16.2%

Visibility &

Weather

Fatalities

• Other - 27.6%

Data

Analysis

Introduction

DATA SUMMARY

Lessons Learned

- Growth in the region over the last 6 years has increased the number of interactions with railroads and automobiles but has not generated an increase in incidents, injuries or fatalities
- It is important to track the data from these incidents to understand why they happen, for better planning and public education on at-grade crossings
- During 2014-2019, incidents on average have held steady
- Average incident occurs in daylight, dry conditions, no obstruction preventing a clear view of the track and at a non-illuminated crossing

Injuries

Fatality

Injury

Graphs

Motorist

Actions

Summary

Visibility &

Weather

Data

Analysis

Introduction

SAFETY SUMMARY

How to Approach Crossings

- NEVER come to a stop on railroad tracks, even if you don't see a train
- PAY ATTENTION to signals, crossing gates, and train horns
- DO NOT try to beat a train through the crossing

Visibility &

<u>Weather</u>

Data

Analysis

Introduction

- ALWAYS look out for locomotives coming from either direction on all tracks
- WHEN IN DOUBT, slow down or stop, if it is safe to do so, until you confirm the absence of a train

Injuries

Fatality

Injury

Graphs

Motorist

Actions

Summary

Questions

Safety Campaign: www.nctcog.org/trans/plan/freight/freight-safety

Fatalities

Questions

Fatalities



Injury Graphs

Motorist Actions

Summary

Questions

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CONTACT INFORMATION

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Pedestrian Safety Action Plan (PSAP):

Steps in Identifying Pedestrian Safety Corridors

REGIONAL SAFETY ADVISORY COMMITTEE

JANUARY 22, 2021

FHWA Designated Bicycle and Pedestrian Safety Focus Cities

States and cities with the highest pedestrian fatalities and/or fatality rates



All crash data available using this tool represents reportable data collected from Texas Peace Officer's Crash Reports (CR-3) received and processed by the Texas Department of Transportation (Department) as of 10/27/2020. CRIS Query by NCTCOG staff 10/27/2020



North Central Texas Region Pedestrian Crashes & Fatalities

7,314

Total Pedestrian Crashes in MPA from 2015-2019

All crash data available using this tool represents reportable data collected from Texas Peace Officer's Crash Reports (CR-3) received and processed by the Texas Department of Transportation (Department) as of 10/27/2020. CRIS Query by NCTCOG staff 10/27/2020



North Central Texas Region Pedestrian Crashes & Fatalities

723

Total Pedestrian Fatalities Regionwide from 2015-2019



672 TOTAL PEDESTRIAN FATALITIES REGIONWIDE from 2014-2018

Source: TxDOT's Crash Records Information System (CRIS) for MPA region from 2014-2018 DEVELOPMENT OF A REGIONAL PEDESTRIAN SAFETY ACTION PLAN

AGE RANGE with the highest number of FATAL AND SERIOUS INJURY PEDESTRIAN CRASHES is 23-29 for MALES and 25-33 for FEMALES

Source: TxDOT's Crash Records Information System (CRIS) for MPA region from 2014-2018 7,072 TOTAL PEDESTRIAN CRASHES IN MPA from 2014-2018

Source: TxDOT's Crash Records Information System (CRIS) for MPA region from 2014-2018

70% of All Fatal & Serious Injury Pedestrian Crashes involve MALES

Source: TxDOT's Crash Records Information System (CRIS) for MPA region from 2014-2018

Development Of A Regional Pedestrian Safety Action Plan



Source: TxDOT's Crash Records Information System (CRIS) for MPA region from 2014-2018





for MPA region from 2014-2018

Elements Of The Regional Pedestrian Safety Action Plan

Purpose, Goals & Policies

Identify Prioritized Pedestrian Safety Corridors

Recommended Countermeasures, Programs, Project Types and Performance Measures

Policy Recommendations

Action Plan (Actionable Items)



Identified Primary and Secondary Pedestrian Safety Corridors by first examining crash clusters within square mile cells that had 20+ reported crashes (primary) and 10-19 reported crashes (secondary)



Common Characteristics Used in Identifying the Pedestrian Safety Corridors

Street Topology

- Number of travel lanes
- Vehicle direction of travel
- Posted speeds
- Sidewalks, signals, signage, bike facilities and access points (driveways for vehicles)
- Intersections
- Average Annual Daily Traffic (AADT)

Example Patterns of Land Use

- Single or Multi Family
- Commercial
- Office
- Retail
- Mixed Use
- Industrial
- Schools
- Railroad
- Parking



STATS: PPSCs and SPSCs

- Actual miles of identified corridors: 237 mi.
- Number of reported pedestrian crashes along the corridors:
 26% of all reported between 2014-2018
- Total number of centerline miles in MPA: **38,229 mi.**
- Corridors percentage of total MPA: 0.62%



DISCUSSION with CITIES: Feedback is Important

- Are the beginning and ending points of the identified corridors appropriate?
- Are there corridors in the dataset that should be removed because safety improvements have already been implemented?
- Are there additional high-incidence corridors that should be considered?

Prioritized Pedestrian Safety Corridors

Thank You!

Contact

Matt Fall

Senior Transportation Planner

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Regional Safety Advisory Committee | January 22, 2021 Kevin Kroll

2020-2021 Federal Measures Schedule

Rulemaking	Upcoming RTC Action	Next Anticipated RTC Action	Target-Setting Schedule
PM3 – System Performance, Freight, and CMAQ	October 2020	Late 2022	Biennial
PM2 – Pavement and Bridge	November 2020	Late 2022	Biennial
PM1 – Roadway Safety	February 2021 (Information)	Early 2022	Annual (Targets established as reductions over 5-year period)
Transit Asset			
Management (TAM)	March 2021	Early 2022	Annual

Background

Federal legislation specifies quantitative performance measures that must be tracked and reported annually.

 2018 Performance Targets approved by Regional Transportation Council (RTC) in December 2017

Established Regional Safety Position:

Even one death on the transportation system is unacceptable. Staff will work with our partners to develop projects, programs, and policies that assist in eliminating serious injuries and fatalities across all modes of travel.

- Targets affirmed annually
- In May of 2019, the Texas Transportation Commission (TTC) adopted Minute Order 115481, directing TxDOT to work toward the goal of reducing the number of deaths on Texas roadways by half by the year 2035 and to zero by the year 2050

TxDOT Target Setting

Previous State Safety Performance Target: Two percent reduction in each of the five performance measures by the target year of 2022

New State Safety Performance Targets

- 50 percent reduction for fatalities and fatality rate measures by the target year of 2035
- 2 percent reduction by 2022 targets remain for Serious Injury, Serious Injury Rate, and Non-motorized fatalities and serious injuries

	Original Target Reduction 2% Reduction Across each Performance Measure by 2022	Updated Target Reduction 50% Reduction For Fatality and Fatality Rate Measures by 2035
2018	0.40%	
2019	0.80%	
2020	1.20%	
2021	1.60%	16.8%*
2022	2.00%	3.3%*

*Calculated using linear interpolation between our 2020 regional targets and a 50% reduction in those targets in 2035.

Roadway Safety Performance Targets

- □ Target: Number of Fatalities
- □ Target: Rate of Fatalities
- □ Target: Number of Serious Injuries
- □ Target: Rate of Serious Injuries
- □ Target: Number of Non-motorized Fatalities plus Serious Injuries

(Targets based on a five-year rolling average)

Safety Performance Targets (PM1) Trends and Target Performance

Performance Measure	Desired Improvement Trend	Current Trend*	2018 Target Met	2019 Target Met**
	State of Texas			
1. No. of Fatalities	\		Yes	-
2. Fatality Rate	\	1	Yes	-
3. No. of Serious Injuries	\	1	Yes	-
4. Serious Injury Rate	\	1	Yes	-
 No. of Non-motorized Fatalities and Serious Injuries 	★	-	Yes	-
	North Central Texas (NCTCOG) Region			
1. No. of Fatalities	\$		Yes	Yes
2. Fatality Rate	1	1	Yes	Yes
3. No. of Serious Injuries	★	★	Made Significant Progress	Yes
4. Serious Injury Rate	★	★	Made Significant Progress	Yes
5. No. of Non-motorized Fatalities and Serious Injuries	★	-	Yes	Yes

*Current trend using data from the previous five years of available data (2015-2019)

**Preliminary results for NCTCOG. FHWA expected to release state results in March 2021.

Observed safety performance is compared to targets on a two-year delay

NCTCOG Actual Safety Performance 2019

Safety Performance Measures	Original 2019 Target	PY2019 Actual Performance	PY2012-2016 Baseline Performance	Met Target?	Better than the Baseline?	Met or Made Significant Progress?
Number of Fatalities	599.2	557.2	496	Yes	No	
Rate of Fatalities	0.838	0.781	0.768	Yes	No	
Number of Serious Injuries	3,999.6	3,692	3,754	Yes	Yes	Vac
Rate of Serious Injuries	5.568	5.200	5.807	Yes	Yes	ies
Number of NonMotorized Fatalities and Serious Injuries	582.4	559	497	Yes	No	

Fatalities

Fatality Rate

Serious Injuries

Serious Injury Rates

Non-Motorized Fatalities and Serious Injuries

TxDOT Safety Performance Targets and Projections

Safety Performance Targets	2020 TxDOT Targets 1.2% Re	2020 NCTCOG Targets eduction	2021 TxDOT Targets 1.6% Re	2021 NCTCOG Targets eduction	2022 TxDOT Targets 2.0% Re	2022 NCTCOG Targets
No. of Fatalities	4,068	589.3	3,687*	572.4	-	-
Fatality Rate	1.48	0.803	1.33*	0.762	-	-
No. of Serious Injuries	18,602	3,514.7	17,151	3,375.3	-	-
Serious Injury Rate	6.56	4.768	6.06	4.485	-	-
No. of Non- motorized Fatalities and Serious Injuries	2,477	595.0	2,316.4	592.3	-	-

Targets are based on a five-year rolling average (ex. 2017 – 2021) for 2021. Proposed reduction from original trend line projections.

*2021 Targets for TxDOT include new 50% reduction by 2035 targets for fatalities and fatality rate

NCTCOG Safety-Related Programs and Projects

Safety Program Area	Bike and Pedestrian	Freight
* Regional Roadway Safety Plan	Education and Outreach - Look Out Texans	Fort Worth Rail Crossing Evaluation
* Driver Behavior Social Marketing Campaign	Regional Pedestrian Safety Plan	Truck Lane Restrictions Planning
Intersection Safety Implementation Plan	Bike/Ped Technical Training/Workshops	Freight Safety Initiative
WWD Mitigation Pilot Project	Safety Spot Improvement Program	Canyon Falls/US 377 and UPRR
Traffic Incident Management Training Program	Transportation Alternative Funding CFPs	Linfield Closing/Ped Crossing over UPRR
Crash Reconstruction Software/Equipment Training Program	"Routes to Rail Stations" Study	Prairie Creek Road Grade Separation
Incident Management Call for Projects	Safe Routes to School	
Commercial Vehicle Enforcement Training for Judges & Prosecutors	Bicycle and Pedestrian Advisory Committee	Streamlined Project Delivery
Commercial Vehicle Enforcement RFP		Denton County East-West Corridor
Mobility Assistance Patrol Program	Congestion Management	
Regional Safety Information System - Crash Database	Emerging Technology Investment Programs	Automated Vehicles
Abandoned Vehicle Working Group / Regional Policy Development	Freeway Management & HOV Enforcement	AV 2.0
Annual Safety Performance Report Publication	Congestion Management Process	Texas Connected Freight Corridor: IH 30
FHWA Safety Performance Target	Peak Hour Lane Implementation	AV Truck Data Sharing
Regional Safety Advisory Committee		Traffic Signal Data Sharing
* Vision Zero Program Development Workshop	TSM / ITS	Waze/511DFW Data Sharing
* Vision Zero Regional Policy Resolution Development	Regional Traffic Signal Retiming Program	DSTOP
* NCTCOG Systemic Safety Improvements Program	Traffic Signal/Intersection Improvement Program	
	Traffic Signal Cloud Data	Aviation
Air Quality		Know Before You Fly (Your Drone) Workshops
DFW Clean Cities	Transit	UAS Safety and Integration Initiative/Task Force
Emissions Enforcement	Public Transportation Agency Safety Plan (PTASP)	

Date	NCTCOG Safety Performance Targets Actions to Date
December 2017	STTC/RTC (Action) - Presented 2018 Safety Performance Targets. * Affirmed support of 2018 TxDOT Targets
January/February 2019	RSAC/STTC/RTC (Action) - Presented 2019 Safety Performance Targets. *Reaffirmed support of 2018 TxDOT Targets and affirmed support of 2019 – 2022 TxDOT Targets
January 24, 2020	RSAC/STTC (Information) - Presented 2020 Safety Performance Targets Update and 2018 preliminary safety targets vs. actual performance update to STTC. Item pulled from RTC due to special agenda
July 24, 2020	RSAC – Presented final safety targets vs. actual performance
January/February 2021	RSAC/STTC/RTC (Information) - Present 2021 Safety Performance Targets Update and 2019 preliminary safety targets vs. actual performance update to STTC and RTC
January/February 2022	STTC/RTC (Action) - Present proposed 2022 Safety Performance Targets and 2020 preliminary safety targets vs. actual performance update to STTC and RTC

Questions, Comments, Contacts

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North Central Texas Council of Governments

https://www.nctcog.org/pm/fed