

NTSB

National
Transportation
Safety Board

ABA BISC Meeting Baltimore, Maryland NTSB Update

Mike LaPonte

Highway Accident Investigator

Washington, DC

Current Crash Investigations



March 15, 2022

Andrews, Texas



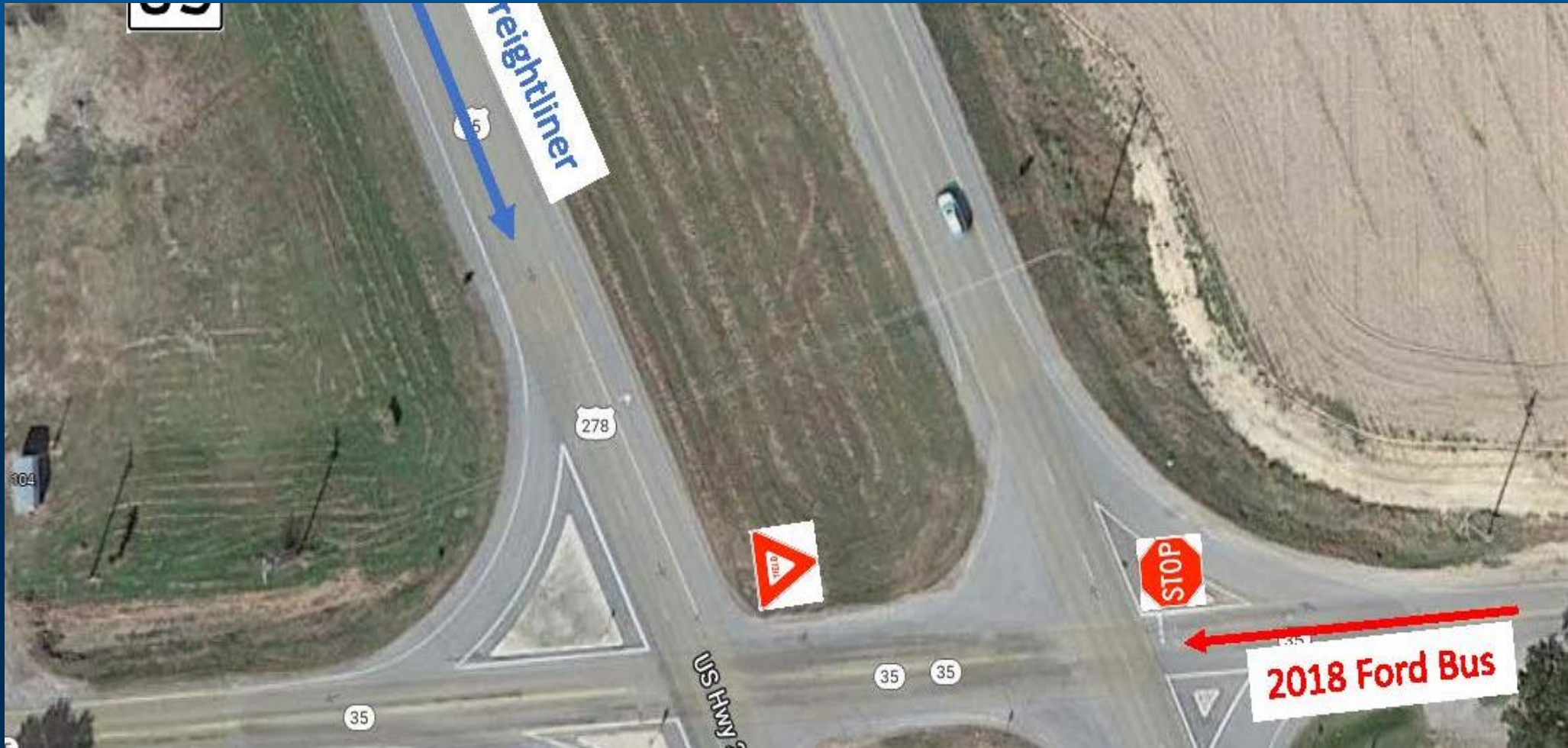
March 22, 2022

Tishomingo, Oklahoma



June 6, 2022

Dermott, Arkansas



Pala Mesa, CA

2014 Freightliner bus

Driver + 20 passengers

Los Angeles to San Ysidro via I-15

Driver's regular bus and regular route

Raining off/on throughout trip

Roadway was wet

February 22, 2020



The Crash

- Driver and 20 passengers on bus after Temecula stop
- About 10:23 a.m.
- Driver lost control
- Bus departed roadway to the right, rolled 1.5 times, came to rest on roof
- Data shows about 74 mph, sustained braking, sharp steering to the right
- Reports of moderate rain and wet roadway at the time



Source: California Highway Patrol





Source: CHP



Bus Tire Tread Condition

Axle	Regulatory Minimum Tread	Postcrash Bus Tread (Left)	Postcrash Bus Tread (Right)
Steer	4/32 nd inch	10/32 nd inch	11/32 nd inch
Rear/Drive	2/32 nd inch	1/32 nd inch (inside dual)	1/32 nd inch (inside dual)





Bus Tire Tread Condition

Axle	Postcrash Bus Tread	
	Left	Right
Steer	10/32 nd inch	11/32 nd inch
Rear/Drive	1/32 nd inch (inside dual)	1/32 nd inch (inside dual)



Steer Tire



Inside Dual Tire

Tire Rotation Practice

- Executive used new tires only on the front axle
 - Would move both front tires to rear axle at 5/32 inch tread depth
 - Would remove rear tires from service at 2/32 inch tread depth
 - Rear tires on the crash bus replaced twice since November 3, 2019

Some motor carriers follow the same tire rotation practice

UMA and U.S. Tire Manufacturers Association (USTMA) does not recommend this tire rotation practice

California Bus Inspection Form

Bus Maintenance & Safety Inspection Form 108A

Inspections are required every 45 days

- Conducted by carrier

Covers 40 inspection items, including condition of tires

Records repairs to the vehicle, noting mileage at time of repairs

CHP Form 108A (February 10, 2020)

CHASSIS / CHASSIS	OK	DEF
28. Wheels, tires, lug nuts - cracks, secured - tread - inflation <i>Rines, llantas, tuercas - rajadas, seguridad, banda rodante, presion de aire</i>	*	✓
29. Wheel seals, leaks - hyd. brake system leaks <i>Retenes de las ruedas y fugas - fugas de la sistema hidraulico</i>		✓
30. Check steering gear mounting - free lash, oil level <i>Revisar sinfin del volante y monturas - juego libre, nivele de aceite</i>	*	✓
31. Steering arms, drag links, tie rods <i>Brazos de direccion y barras de acoplamiento, terminales</i>	*	✓

What We Found: *Tire Rotation*

- Executive deficiencies in tire replacement and rotation practice allowed the bus to operate with tires with less than required tread depth
- The practice of replacing rear axle tires with used tires from steer axle can result in non-uniform tread depths, leading to loss of traction
- What we propose:
- One Recommendation to American Bus Association and the United Motorcoach Association

California Bus Passenger Safety Laws

Passenger obligation

- Seat belt use required
- Penalty for violation

Motor carrier obligation

- Driver notification to passengers regarding mandatory use
- Posted placards and/or signs

California Seat Belt Law SB 247

SB 247 signed into law in 2016

Ensures that the driver of a charter bus that is designed to carry 39 or more passengers provides oral and written or video instructions to all passengers on the safety equipment and emergency exits on the vehicle prior to the beginning of any trip.

California Seat Belt Law 27318 Enacted July 1, 2018

- (c) A motor carrier operating a bus equipped with safety belts shall do one of the following:
 - (1) Require the bus driver, before departure of a bus carrying passengers, to inform passengers of the requirement to wear the seatbelt under California law and inform passengers that not wearing a seatbelt is punishable by a fine.
 - (1) Post, or allow to be posted, signs or placards that inform passengers of the requirement to wear a seatbelt under California law and that not wearing a seatbelt is punishable by a fine. The signs or placards shall be in a font type and font size that is reasonably easy to read and shall be affixed to a bus in multiple, conspicuous locations.

What We Found: *Seat Belt Use Law*

Passengers unaware or not restrained

Driver did not provide required passenger notification on mandatory seat belt use law

No placards/signs affixed to bus

Owner of motor carrier stated he was unaware of California vehicle law regarding mandatory seat belt use

What we propose:

- Two recommendations to the California Highway Patrol
- One recommendation to the American Bus Association and the United Motorcoach Association

Findings

- Excessive speed for conditions
- Inadequate tread depth
- Tire depth requirements for rear tires
- Inappropriate driver responses
- Most not wearing seatbelts

Passenger Transportation Safety Checklist

1. Do you have a safety manual – safety plan with safety culture
2. Hiring process and training program – new hires and concurrent driver training
3. Qualification – CDL renewals, Medical certification, violations, annual review
4. Pre-Trip Briefing and emergency training – fire extinguisher, emergency windows, doors, seat belts, what do you do in a fire? Is the training documented?
5. Maintenance – do you do a pre-trip and post trip? Are maintenance records kept on file is there a designated person to manage the program?
6. Fatigue management program – NAFMP
7. Technology – cameras, collision avoidance, fire suppression
8. Driver behavior modification tools



Michael.LaPonte@ntsb.gov

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