

# Multi-Vehicle Accident Report: Injuries and survivability

By Jack Graue

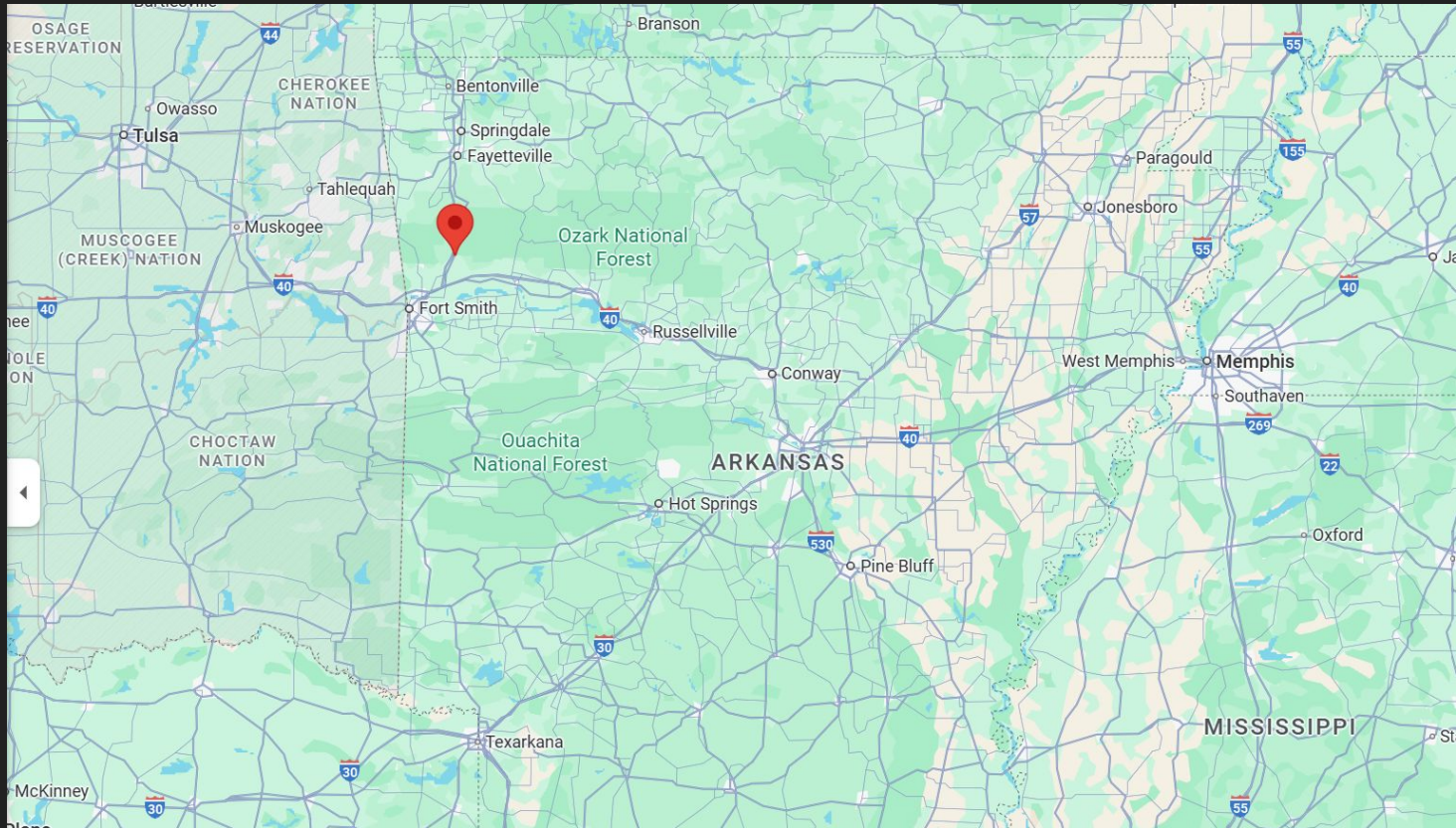
# Table of Contents

- Slide 3: Background
- Slide 4: Location
- Slide 5: Injuries - Vehicle Drivers
- Slide 6: School bus impact map
- Slide 7: Passengers with non-fatal injuries
- Slide 8: Passengers with serious/fatal injuries
- Slide 9: Response and survivability
- Slide 10: Conclusion

# Background

- On May 31st, 2001 at around 3:28 P.M., Gayle Stuart Trucking, Inc., truck-tractor semi trailer collided with a 1990 Blue Bird Corporation school bus operated by the Mountainburg, Arkansas, Public Schools.
- Both vehicles turned over.
- Three passengers in the school bus seated near the impact area were killed.
- Two passengers had serious injuries, four passengers had minor injuries. The drivers of both vehicles both sustained minor injuries.

# Location

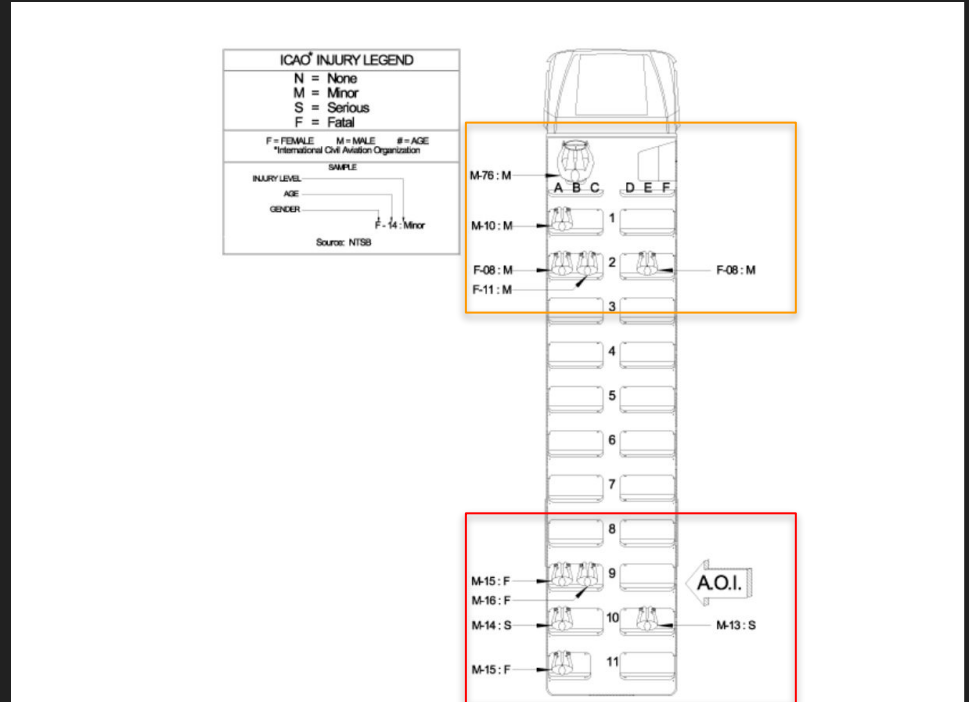


# Injuries - Vehicle Drivers

- Semi trailer driver
  - The driver of the semi trailer sustained contusions on the right side of his head, upper right arm, and left shoulder.
  
- Bus driver
  - The driver of the impacted school bus sustained contusions on the left side of his face, left shoulder, and left hip.

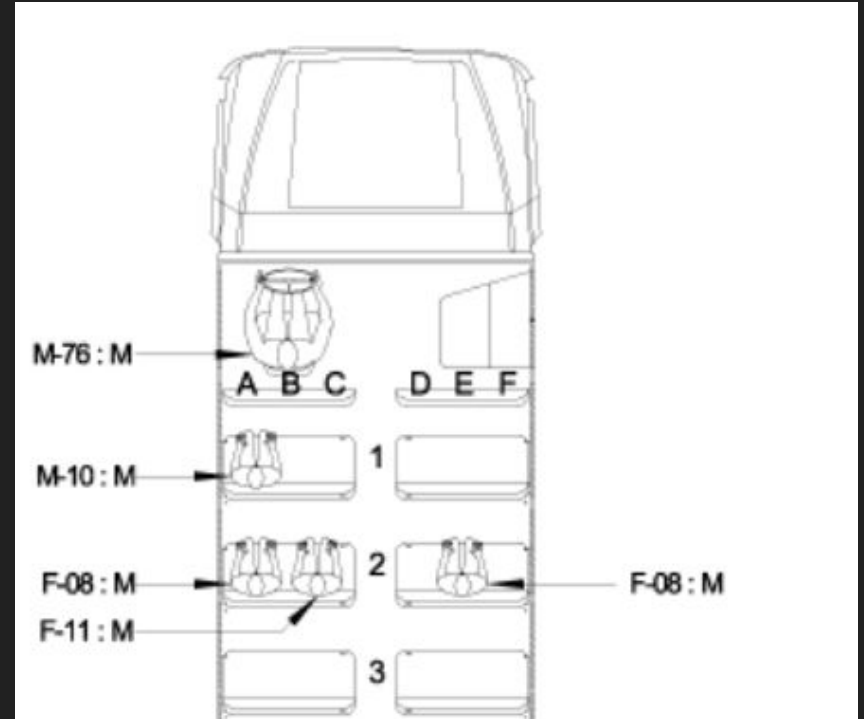
# School bus impact map

- Orange = injured, not serious / fatal
- Red = injured, serious / fatal



# Passengers with non-fatal injuries

- On the right hand side:
  - The passenger in seat 1A sustained a contusion on the left side of his scalp.
  - The passenger in seat 2A sustained a contusion on the left side of her scalp and a possible contusion or laceration of the spleen.
  - The passenger in 2C sustained lacerations and contusions on the right elbow.
- On the left hand side:
  - Passenger in seat 2E had lacerations and contusions on her right elbow and on the back of both knees.



# Passengers with serious/fatal injuries

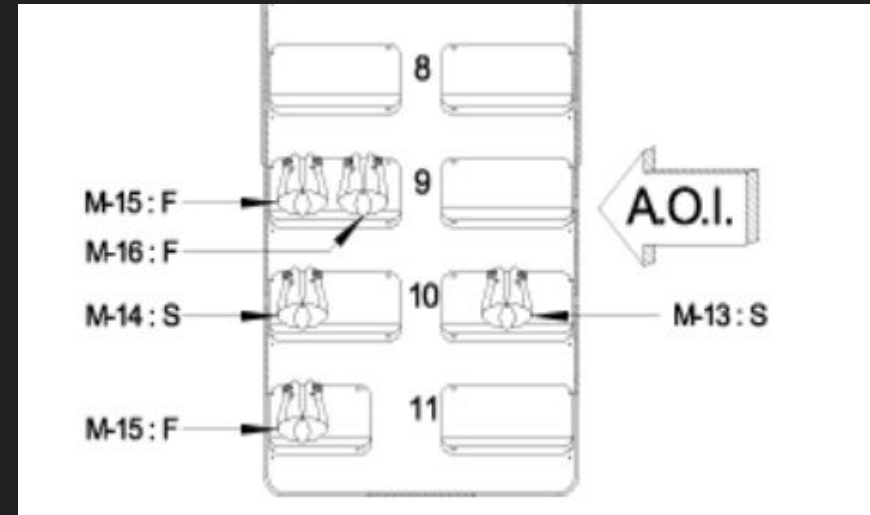
A.O.I. = area of impact

- Row 10

- The passenger seated in 10E sustained lacerations to his head and elbow and a closed head injury. The passenger in seat 10A sustained multiple spinal fractures and a fractured right arm and leg. Both passengers survived.

- Fatal injuries

- The passenger in seat 9A sustained a fractured skull, fractured left clavicle, three fractured ribs, and a compound fracture of the left leg
- The passenger in 9C sustained multiple lacerations and contusions, a right pelvic fracture, a liver laceration, a right renal laceration, ruptured right hemidiaphragm, and vena cava injury.
- The passenger in 11A, who was partially ejected, had a skull fracture, multiple spinal fractures, and a fractured left tibia.



# Response and survivability

- Within 15 minutes, several police, fire, and EMT units were on scene
- Passengers who survived the crash were on their way to the nearest hospital by 3:45 P.M.
- The passenger partially ejected from the bus was pronounced dead at the scene.

# Conclusion

- A critique of the EMS response found that emergency services responded in the appropriate manner and operated in to an appropriate standard.
- The probably cause of the accident was determined by the Safety Board to be reduced effectiveness of brakes, likely due to a failure to maintain the brakes and have them be adequately expected.
- The Safety Board has made recommendations to various state agencies, as well as the U.S. Department of Transportation, to increase requirements on brake inspections.