FORT WORTH DISTRICT

Pilot Wrong-Way Driving Evaluation

Theresa Poer, P.E.
Director of Transportation Operations - FTW TxDOT

Photo by Liam Frederick
Safety: Mission ZERO

Safety Never Stops!
In seven months, at least 10 people have died in wrong-way accidents on Tarrant County freeways.

TRAGIC TURNS

Wrong way

Since October, six people have died in wrong-way accidents on the Euless section of Airport Freeway.

By M组成G NODA
STAR-TELEGRAM STAFF WRITER

At least 10 people have died in seven months on Tarrant County freeways because someone was driving on the wrong side of a highway — more than some states see in a decade.

The five accidents happened on Airport Freeway in Euless and on East Loop 820 and Interstate 308 in Fort Worth. The most recent one, on Saturday on Airport Freeway, killed four people, including the wrong-way driver.

Officials expect one or two such fatalities a year in each state. In 2000, the most recent year for statistics from the National Highway Traffic Safety Administration, there were 92 deaths related to driving the wrong way on U.S. freeways. Figures from the five previous years are similar.

So what is the problem in Tarrant County?

While there are similarities — alcohol contributed to at least two of the accidents — transportation experts cannot pinpoint a cause.

"Interstate highways are very safe. They're engineered so you can go fast, and they have restricted

More on ACCIDENTS on A6A

"There isn't one thing that would eliminate those type of drivers. But more signs and eliminating two-way frontage roads would help." — Euless police Sgt. Ron Williamson

Deadly stretch of highway

Wrong-way collision kills 7; is third such crash since 2001

By PEGGY O'NEAL
Fort Worth Star-Telegram

Sheriff's deputies are familiar with the stretch of U.S. 281 in northwestern Tarrant County, where seven people were killed Tuesday. They've seen blood splattered here before — and in a similarly grisly way.

A collision caused by a motorist driving the wrong way is the third such deadly accident in 18 months on the same section of freeway, and the worst deputies could remember in 20 years.

"This is as bad as we get," said Lt. John Denholz of Wednesday of the wreck near Murrell Road. Investigations will not know why Benigno Martinez, 24, of Hemphill, was driving in the wrong direction on U.S. 281. His unoccupied sedan collided with a Fort Worth police car, killing 21-year-old Naji Mullick, and four other people in a Toyota SUV, killing them.\n
Deputies found no empty alcohol containers or red wine tossed on the roof of Martinez's car, said Detective John Denholz of "the only thing we can say is that there was alcohol in the vehicle."\n
Whether Martinez was under the influence of any substances, or perhaps not under the influence of anything, nobody knows.

In February 2002, five people were killed on U.S. 281 just northwest of Burnet, and another person was killed in March 2001 north of Aledo.

"The accident scene" (Map)

"Other wrong-way fatalities"

Young father died after 77th first night on new job

By DEANNA BOYD
FORT WORTH STAR-TELEGRAM

A Fort Worth newspaper's first night on the job ended in tragedy.

A third crash on the wrong-way stretch of Loop 820 early Thursday killed 45-year-old Robert A. Harmison, of Cross Roads, who was leaving for his new job as assistant general manager of the Fort Worth Star-Telegram's new office in its new building.

"He was 22 years old. He was my son," said Harmison's father, Richard, who was driving in a car that was also on the wrong way.

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Harmison's death was the third known wrong-way accident on Loop 820 in recent weeks, and the first involving a newspaper employee.

"I don't know what to say. I'm in shock," said Fort Worth Star-Telegram Publisher John Thornton.

Thornton said he had been in contact with Harmison's father, who was driving in a car that was also on the wrong way.

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Euless crash survivor tells of disbelief

By DOMINGO RAMIREZ JR.
STAR-TELEGRAM

Euless — The driver of a Ford Explorer, Mark A. Roberts, 21, of Euless, has been charged with driving under the influence after the Explorer was involved in a wrong-way crash.

"The accident scene" (Map)

"Other wrong-way fatalities"

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Roadmap

1. Development of our WWD Plan
2. Countermeasures
3. Event Detection/Data
4. Crash Data
5. Case Study
6. Future Plans
Countermeasures Plan – Phase I

- Interagency contract project with TTI
- Develop plan for MPO safety grant money to combat WWD in Tarrant County
  - Technology focus for countermeasure implementation
- 3 step planning process:
  - Analyze and aggregate data (crash & 911)
  - Identify and prioritize corridors
  - Develop countermeasure recommendations
- Led to CSJ 0902-00-138 project
  - $887K
1. Tarrant County WWD Crashes: 2007 to 2014
Overview of Countermeasure Implementation

- Technology deployment
  - TAPCO LED signs
    - I-30 focus area
    - 24 ramps
  - Dual radar detection
  - HD cameras – record 1 to 4 minute video clip + 10 still images

- Traditional deployment
  - Lowered WW/DNE signs
    - SH 360 focus area
    - 9 ramp locations
  - Reflective pavement arrows
  - Reflective tape on sign posts
TransVISION E-mail Alerts

TRF_FTW_Lonestar <TRF_FTW_Lonestar@txdot.gov>
Wrong-Way Alert Detected - IH35 EX.Lamar WB

- False calls
  - Camera confirmation
  - Data analysis:
    - Location (ramp/direction)
    - Rationale

A Wrong-Way Alert has been detected for detector "IH30.EX.Brentwood Stair Rd.EB" on 7/27/2017 10:54:26 PM. The vehicle was detected on IH30 Eastbound (IH30 Eastbound at Brentwood Stair exit).

Sent from Lonestar user DPA Alert
### False Call Data – Preliminary Findings

<table>
<thead>
<tr>
<th>Location</th>
<th>Eastbound Exit</th>
<th>Westbound Exit</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT&amp;T Way</td>
<td>0</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Belknap</td>
<td>0</td>
<td>83</td>
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<tr>
<td>Brentwood Stair</td>
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<td>470</td>
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<tr>
<td>Bridge</td>
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<tr>
<td>Center</td>
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<td>2</td>
<td>3</td>
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<tr>
<td>Collins</td>
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<td>0</td>
<td>1</td>
</tr>
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<td>Fielder</td>
<td>0</td>
<td>7</td>
<td>7</td>
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<tr>
<td>Lancaster</td>
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<td>22</td>
<td>22</td>
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<tr>
<td>Lamar</td>
<td>0</td>
<td>16</td>
<td>16</td>
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<tr>
<td>Oakland</td>
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<td>0</td>
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</tr>
<tr>
<td>Summit</td>
<td>70</td>
<td>1</td>
<td>71</td>
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<tr>
<td>University</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Calls:** 703

- **Real events**
  - Confirmed WWD using camera system
  - **Data analysis:**
    - Location (ramp/direction)
    - Time
    - Outcome

A Wrong-Way Alert has been detected for detector "IH30.EX.Center Street.WB" on 1/13/2017 10:01:51 PM. The vehicle was detected on IH30 Westbound (IH30 Westbound at Center Street exit).
# Real Event Data – Preliminary Findings

<table>
<thead>
<tr>
<th>Location</th>
<th>Eastbound Exit</th>
<th>Westbound Exit</th>
<th>TOTAL</th>
</tr>
</thead>
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<td>AT&amp;T Way</td>
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<td>Brentwood Stair</td>
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<td><strong>100</strong></td>
<td><strong>102</strong></td>
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<td>Oakland</td>
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<td>Summit</td>
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<tr>
<td><strong>University</strong></td>
<td><strong>0</strong></td>
<td><strong>32</strong></td>
<td><strong>32</strong></td>
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</table>

**234**
Real Event Data – What were the Outcomes?

- Turnaround: 48%
- WW entry: 29%
- Non-vehicle: 17%
- Unknown: 6%
Distribution of Real Events As “Crash Saves”

<table>
<thead>
<tr>
<th>Rank</th>
<th>Location</th>
<th>Vehicle Turnarounds (Crash Saves)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Center Street – WB</td>
<td>74</td>
</tr>
<tr>
<td>2</td>
<td>University Drive</td>
<td>17</td>
</tr>
<tr>
<td>3</td>
<td>Brentwood-Stair Road</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Lamar Boulevard</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Oakland – EB</td>
<td>3</td>
</tr>
<tr>
<td>T6</td>
<td>Belknap</td>
<td>2</td>
</tr>
<tr>
<td>T6</td>
<td>Fielder Road – WB</td>
<td>2</td>
</tr>
<tr>
<td>T8</td>
<td>Collins Street – WB</td>
<td>1</td>
</tr>
<tr>
<td>T8</td>
<td>AT&amp;T Way – EB</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>113</strong></td>
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# WWD Crash Data for Tarrant County

## WWD KAB Data from 2012-2018

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Fatal</th>
<th>Incapacitating</th>
<th>Non-incapacitating</th>
<th>Total Injury</th>
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<tbody>
<tr>
<td>2012</td>
<td>5</td>
<td>9</td>
<td>10</td>
<td>24</td>
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<tr>
<td>2013</td>
<td>2</td>
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<td>2014</td>
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<td>2017</td>
<td>2</td>
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<td>5</td>
</tr>
<tr>
<td>2018</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

Total of 83 Injury crashes from 2012-2017/Average yearly injury crashes before countermeasures was 13.8
Real Event Data: I-30 @ WB Center Street Exit
Real Event Data: I-30 @ WB Center Street Exit

- About 50 / 50 split of day – night
- **74%** turnaround rate
  - Highest of any deployment location
- Traditional signing / markings and supplemental too

<table>
<thead>
<tr>
<th>Time</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 to 3 AM</td>
<td>14.7%</td>
</tr>
<tr>
<td>3 to 6 AM</td>
<td>4.9%</td>
</tr>
<tr>
<td>6 to 9 AM</td>
<td>2.0%</td>
</tr>
<tr>
<td>9 to 12 PM</td>
<td>10.8%</td>
</tr>
<tr>
<td>12 – 3 PM</td>
<td>17.6%</td>
</tr>
<tr>
<td>3 to 6 PM</td>
<td>19.6%</td>
</tr>
<tr>
<td>6 to 9 PM</td>
<td>13.7%</td>
</tr>
<tr>
<td>9 to 12 AM</td>
<td>15.7%</td>
</tr>
<tr>
<td>Unknown</td>
<td>1.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
Future Plans/Recommendations

- Expansion of technology to other priority corridors
- Signage and signal applications at diamond interchanges
- Increased coordination with law enforcement on notifications
- Work with location and technology to reduce false calls
- Work on getting better data (TransVision Operator logs/911 CAD Data)
Questions?