CMV Traffic Safety Dashboard for the NDHP
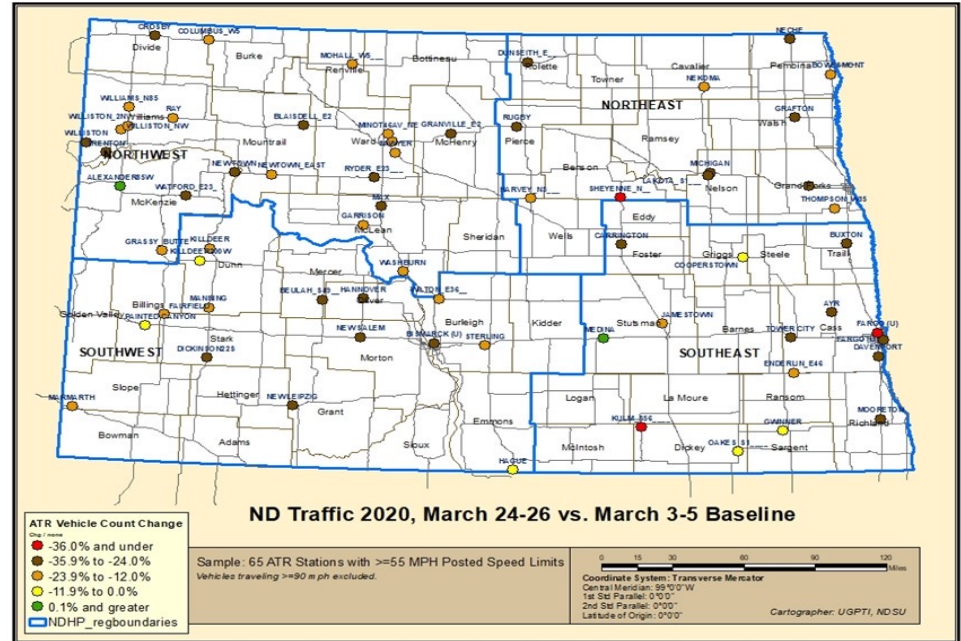
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Southern Commercial Vehicle Safety Research Summit

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Beginning

- Initial idea from discussions with the NDHP
  - Difficulty obtaining up to date CMV crash data

- Recently completed a project to build a traffic volume dashboard using Automatic Traffic Recorder (ATR) data

ND Traffic 2020, March 24-26 vs. March 3-5 Baseline

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Data Sources

- Working with the NDHP, we developed and submitted a FMCSA grant proposal, which was awarded

- Proposed to add CMV crash and inspection data to the ATR data
  - Separate out CMV traffic by vehicle classification

- Also integrating Weigh-in-Motion (WIM) data and weather data

- Each type of data has a different owner and different method to obtain the data

Data Owners - Methods

- ND uses TraCS software for crash reports
  - Data is maintained by the NDDOT
  - Initially, data will be sent as zipped files via FTP
    - The datasets are XML files which can be imported to Excel
- ND uses Aspen software for inspections
  - Data is maintained by the NDHP in SAFETYNET
  - Data can be extracted as comma-delimited files
- WIM data files will be sent from the NDDOT to a NDSU server using third party software from the WIM vendor
  - Software is needed in order to parse the files

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Data Example

Explanation of numbered arrows above:

1. Station number
2. Station location (12 characters)
3. Filler for 12-character location string
4. Not applicable
5. Start time in military time(0000=midnight)
6. Start date (052210=May 22, 2010)
7. End time in military time (2400=midnight)
8. End date
9. Not applicable
10. Not applicable
11. Number of lanes at this station
12. Not applicable
13. Not applicable
14. Not applicable
15. Column headers for the 15 FHWA vehicle classes

16. Not applicable
17. Hour of the day (0100=data collected between the hour of midnight and 1:00 AM)
18. These horizontal rows (1-12) contain the data for the 12 speed categories below:
    - 1 – 40mph and under
    - 2 – 40.1 to 45.0
    - 3 – 45.1 to 50.0
    - 4 - 50.1 to 55.0
    - 5 – 55.1 to 60.0
    - 6 – 60.1 to 65.0
    - 7 – 65.1 to 70.0
    - 8 – 70.1 to 75.0
    - 9 – 75.1 to 80.0
    - 10 – 80.1 to 84.99
    - 11 – 85.0 to 89.99
    - 12 – Greater than 89.99

Questions / Discussion

Contact Information

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