



# ISWIM/CVSA/FHWA Webinar

## THE US NETWORK OF WIM SYSTEMS

***STEVEN JESSBERGER (FHWA)*** - AN OVERVIEW OF THE NATIONAL US NETWORK OF WIM SYSTEMS, THE WIM DATA THAT IS COLLECTED AND WHAT ARE THE MAIN APPLICATIONS

# WIM Data Network in the US

- ▶ **Travel Monitoring Analysis System (TMAS)** contains WIM data from **530 sites** across the US with 24/7 Traffic Monitoring Guide formatted data.
- ▶ **Long Term Pavement Program** collecting research quality WIM data for single lane since 2003 from **36 sites**.
- ▶ Both TMAS and LTPP follow well established quality control methods and calibration procedures to track WIM data (for both axle spacing and axle weights).
- ▶ Both LTPP and TMAS data is available for agencies, countries and consultants to use for research.

# WIM Data Uses in the US:

- ▶ Roadway Design: pavement, geometric, climbing and deceleration lanes
- ▶ US DOT - Truck Size and Weight Limits Study
- ▶ Bridge loading and design
- ▶ Freight Analysis Framework (**FAF**) version 5
- ▶ FHWA Database for Air Quality and Noise Analysis (**DANA**) Tool
- ▶ Highway Cost Allocation Study
- ▶ Highway Statistics - <https://www.fhwa.dot.gov/policyinformation/statistics.cfm>
- ▶ Axle correction factors
- ▶ Class factoring – TMAS has 3,200 class sites
- ▶ Researchers

# US WIM Support Documents

- ▶ LTPP research studies: LTPP Field Operations Guide for SPS WIM Sites
- ▶ National Cooperative Highway Research Program:  
NCHRP Research 20-50(20): Tools for Assuring WIM Data Quality:  
Practical Guide, Report 1070 <https://www.trb.org/main/blurbs/183078.aspx>
- ▶ FHWA Three Part WIM Pocket Guide:  
[Weigh-in-Motion Pocket Guide - Policy | Federal Highway Administration \(dot.gov\)](#)  
Including 4 different WIM technology installation videos



# WIM Quality Controls

- ▶ Traffic Monitoring Guide (2022) – appendix B
  - ▶ Volume
  - ▶ Speed
  - ▶ Classification
  - ▶ Weight
  - ▶ Individual Vehicle Record (IVR)

[https://www.fhwa.dot.gov/policyinformation/tmgguide/tmg\\_2022/Appendix-B%E2%80%93TMAS-Quality-Control-Checks.pdf](https://www.fhwa.dot.gov/policyinformation/tmgguide/tmg_2022/Appendix-B%E2%80%93TMAS-Quality-Control-Checks.pdf)



# Thank You!

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