

FHWA Weigh-in-Motion Pocket Guide

2018 Highway Information Seminar (HIS)

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Travel Monitoring and Surveys Section

Wednesday, October 31, 2018



FHWA WIM Pocket Guide Overview

- Purpose: Assist highway agencies with WIM program operations.
- Developed using best WIM practices with input from the WIM expert panel and FHWA.
- Includes:
 - Quick references for full scope of WIM-related topics.
 - Practical advice, instructions, and illustrations.
- Contains:
 - Pocket size books, web accessible PDF and appendices, and instructional videos.



WIM Expert Panel Members

- Richard Bush - Virginia DOT, Traffic Engineering Division
- Benjamin Craig – NV DOT, Vehicle Size & Weight Program Manager
- Christ Dimitroplos – AZ DOT, Program Manager, WIM Program
- David Fifer – Oregon DOT, Motor Carrier Transportation Division
- Tom Foltz – MI DOT, Electronic Services
- Goro Suljoadikusumo – HI DOT, Highways Planning
- Tedd Little – MT DOT, Transportation Planning Division
- Tony Niemi – WA DOT, Transportation Data, GIS & Modeling Office
- Stan Norikane – CalTrans, Traffic Operations, WIM
- Kent Taylor – NC DOT, Traffic Survey Group
- Ben Timerson – MN DOT, Program Manager Trans. Data & Analysis
- James Whitley – FDOT, Traffic Data Collection Manager



Comprehensive Details on WIM

- WIM Standards and Performance Requirements
- WIM Technology Review and Procurement Recommendations
- WIM Vendor Software and WIM Controllers desired functions
- WIM Program costs and costs per WIM site
- Factors Affecting WIM Technology Selection
- Factors Affecting WIM System Cost
- Equipment Longevity and Life-Cycle Costs
- WIM Sensor Arrays and Layouts
- Site Selection, design, installation, calibration, maintenance
- WIM Data QC Checks
- WIM Equipment Troubleshooting
- Supporting Documentation and Tools for WIM operation



FHWA WIM Pocket Guide Timeline

- Project initiated – [June 2016](#)
- FHWA WIM Expert Panel Kickoff – [November 2016](#)
- FHWA WIM Expert Panel 2 day working meeting – [Nov. 2016](#)
- Panel response to Mail-in questionnaires – [January 2017](#)
- Guide 1st draft review – [March 2017](#)
- Guide 2nd draft review – [November 2017](#)
- Draft Video – [January 2018](#)
- Final Guide and video script review – [April 2018](#)
- FHWA WIM Guide publication – [June 2018](#)
- Final Video – [June 2018](#)



FHWA WIM Pocket Guide Format

- 3 parts/books, targeting different users:
 - To maintain pocket size (5" X 8")
 - Concise, plain and easy to understand
 - Easily accessible in the field
- Also accessible on the web

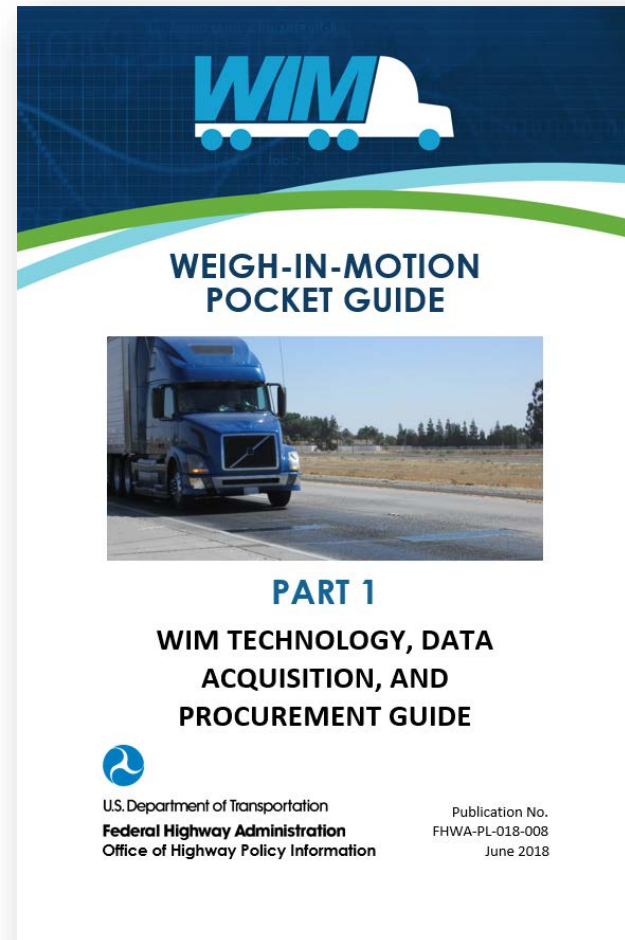
https://www.fhwa.dot.gov/policyinformation/knowledgecenter/wim_guide/



FHWA WIM Pocket Guide Contents

Part 1– WIM Technology, Data Acquisition, and Procurement Guide

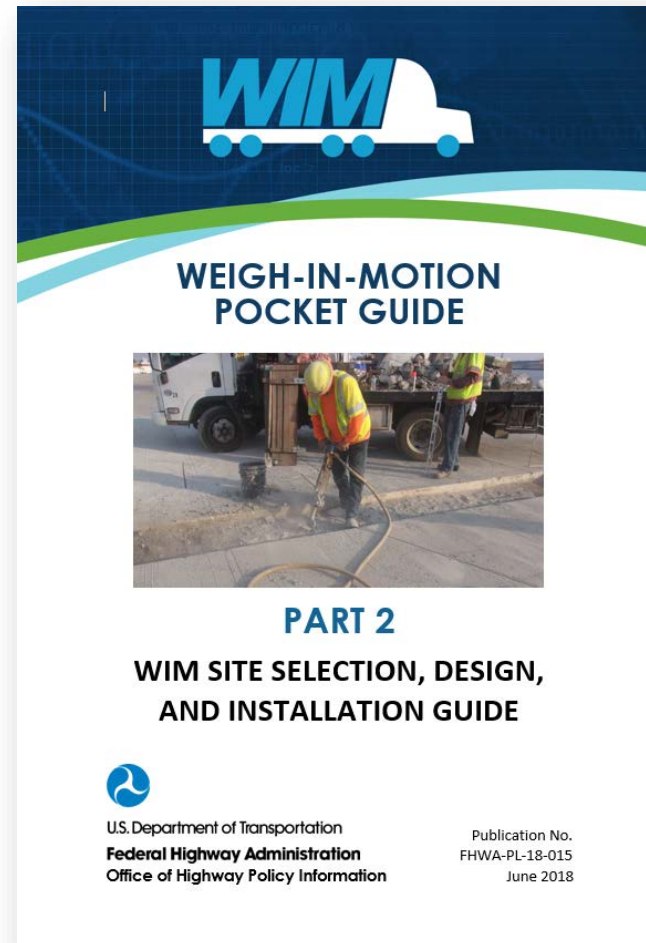
- Topics covered:
 - Technology Selection
 - Data Acquisition
 - WIM Procurement
- Target audience:
 - WIM program manager
 - WIM program-level decision maker



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Part 2 – WIM Site Selection, Design, and Installation Guide

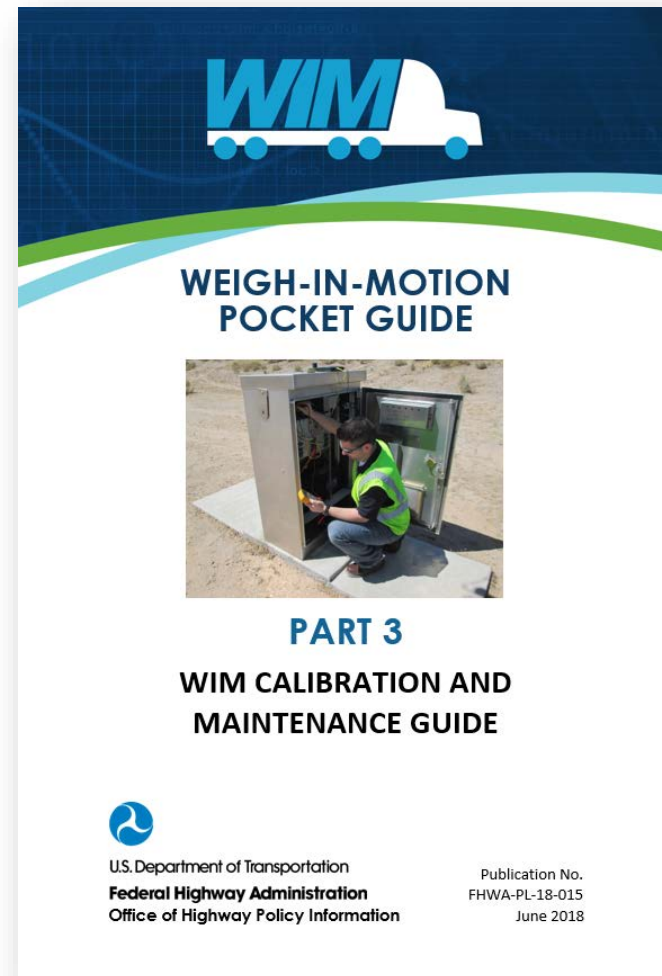
- Topics covered:
 - WIM Site Selection
 - WIM Site Design
 - WIM Installation
- Target audience:
 - Engineer or senior WIM specialist, WIM site-level decisions



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Part 3 – WIM Maintenance and Calibration Guide

- Topics covered:
 - WIM and Calibration
 - WIM Maintenance
- Target audience:
 - Technician involved in WIM maintenance and calibration



FHWA WIM Pocket Guide Video Supplements

- 4 video supplements for WIM sensor installation
 - Polymer Piezo Sensor
 - Quartz Piezo Sensor
 - Bending Plate
 - Strip Strain Gauge Sensor

<https://www.fhwa.dot.gov/policyinformation/index.cfm>



FHWA WIM Pocket Guide Appendices

- **Appendix A** – Technical Report Documentation Page
- **Appendix B** – Acknowledgements
- **Appendix C** – WIM Procurement Resources
- **Appendix D** – WIM Site Design Resources
- **Appendix E** – Maintenance and Calibration Resources
- **Appendix F** – WIM Program Operation and Management Checklists

<https://www.fhwa.dot.gov/policyinformation/index.cfm>



Questions and Comments

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