ISWIM

International Society for Weigh in Motion

# Introduction to Weigh-In-Motion

Hans van Loo

International Society for Weigh-In-Motion

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# Content

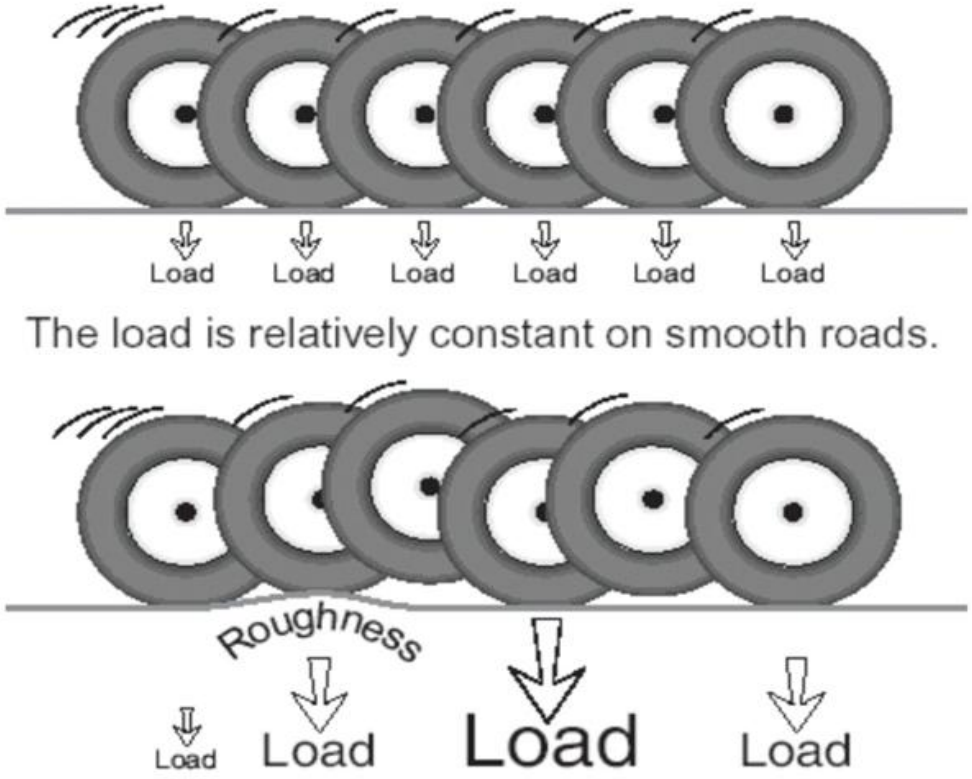
1. Weighing In Motion
2. Applications of WIM data
3. ISWIM User Guide

## Weigh-In-Motion

## Not Weight-In-Motion

# Weighing-In-Motion

- Measuring the Dynamic Tire Forces of a moving road vehicle and;
- Calculating the Gross Vehicle Weight (GVW) and;
- the Wheel, Axle and Axle Group Load
  - the portion of the GVW carried by each wheel, axle, and axle group of a corresponding Static vehicle.



# Weigh-In-Motion Data

- **Record for each passing vehicle**
- **Weighing data:**
  - Wheel Loads
  - Axle Loads
  - Axle Group Loads
  - Gross Vehicle Weight

**Additional data:**

- Unique vehicle record number
- Location of the WIM system
- Lane and direction of travel
- Date and Time of passage
- Vehicle speed
- Axle distances
- Wheel base and/or Vehicle Length
- Vehicle Classification

# Why is WIM necessary?

Vehicular ***mass data*** is critical
- to the design, management
and operational use of the
road infrastructure

and is an important
- tool in the support of
size & weight enforcement

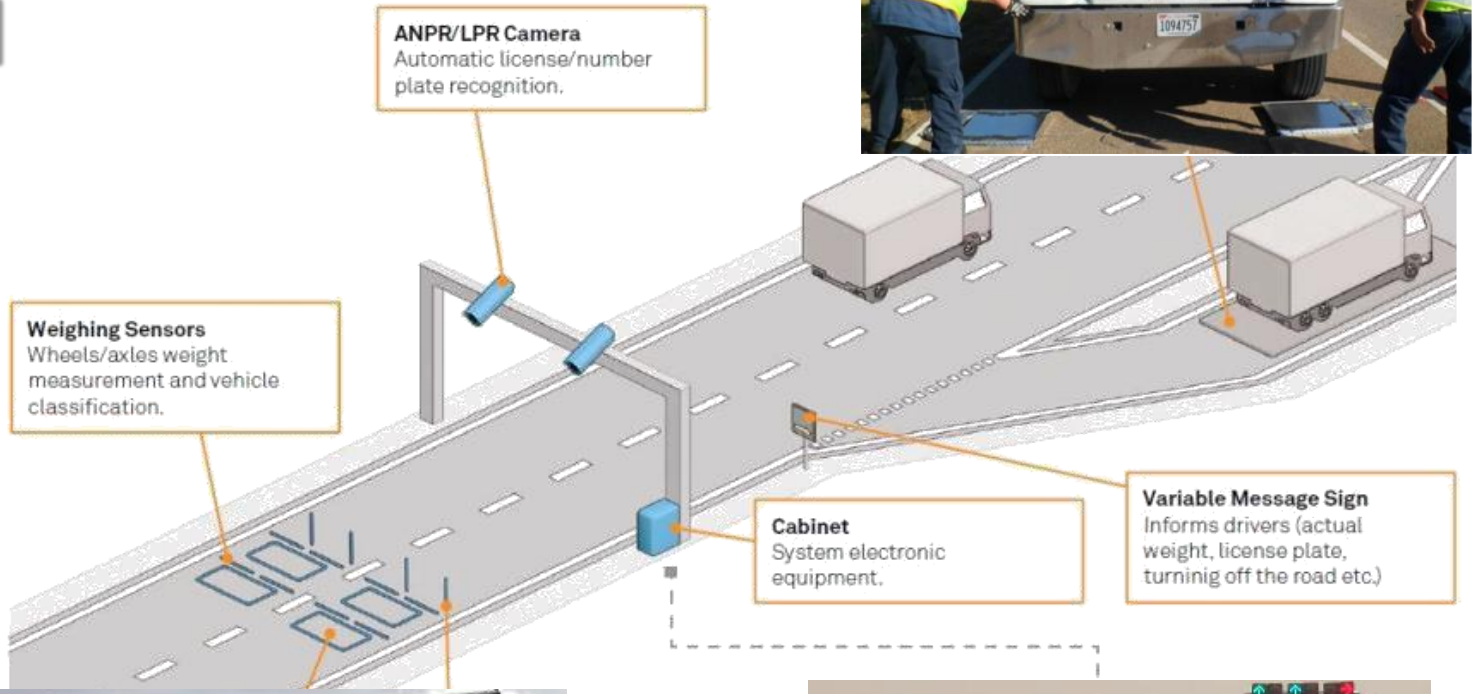

*On-road and in-vehicle WIM is the **only** way to determine the actual traffic load distributions and vehicle specific mass in-situ*

# Applications of WIM

- **Road Infrastructure:**
  - Statistics of Traffic Loading
    - Input for Design Codes
    - Planning of Maintenance
  - Special Transports
    - Matching of Permits and Routes
  - Bridge protection
    - Avoiding damage to infra


# Applications of WIM

- **Weight Enforcement:**
  - Road side Enforcement
  - Statistics & Planning
  - Pre-Selection
    - Virtual Weigh Station
  - Company Profiling
  - Direct Enforcement




# ISWIM User Guide

**Introduction to:**

- WIM technologies
- Applications of WIM
- Implementation & Operation of WIM systems
- Use of WIM Data


**Free download at:** *www.is-wim.net*

# Questions?

**Weigh-In-Motion**

**Hans van Loo**
*Hans.vanloo.int@gmail.com*

**ISWIM**
*www.is-wim.net*