Heavy Vehicles Roll Stability and Safety

Course Information

ARRB is pleased to present a one-day workshop on the technical aspects of heavy vehicle dynamic performance with a focus on roll stability and safety. The workshop provides participants with a grounding in the principles of heavy vehicles, their on-road performance and how this relates to network access and safety. Participants will obtain a thorough understanding of the technical aspects of heavy vehicle operation related to roll stability and performance measures including the Performance Based Standards (PBS) static rollover threshold (SRT).

The topics covered include: introduction to heavy vehicles and basic principles, mass limits, crash statistics, investigation and reconstruction, vehicle dynamics and safety assistance technologies.

Who Should Attend

- Road managers responsible for road design
- Heavy vehicle operations
- Heavy vehicle access and freight policy
- Consultants conducting road and vehicle safety assessments
- Transport operators
- Suppliers
- Manufacturers or safety or engineering staff involved with the operation of heavy vehicles on site or as part of their business operation

Learning Outcomes

Participants will be able to apply technical knowledge in a practical sense, and have a clear understanding of issues relating to heavy vehicle operation, safety assessments and network access, which will enable them to make decisions based on a sound scientific basis.

At the end of this course the learner should be able to Identify and understand the engineering principles that improve vehicle roll stability relating to vehicle design, road geometry and operation. This includes being able to identify the vehicle dimensions, equipment, loading that improve roll stability and the basic road design principles that reduce the risk of rollover.

Trainers

Anthony Germanchev

(BEng Rob&Mech (Hons))

Anthony leads the Advanced Technologies Lab at ARRB his experiences covers high-productivity freight vehicles, rollover investigation and reconstruction.

Tia Gaffney

(BS Macheng)

Tia Gaffney is a Principal Professional Leader in the Transport Safety team here at ARRB. She is a mechanical engineer who has worked in the transport safety field for nearly 20 years.

Outline

DAY 1:

- Introduction to heavy vehicles and basic principles
- Freight trends, truck size and weight and regulations
- Vehicle types, truck terminology
- Crash statistics
- Crash investigation and reconstruction
- Introduction to Performance Based Standards
- Measuring vehicle performance
- Rollover stability
- Static rollover threshold
- Load Transfer Ratio
- Vehicle design principles: dimensions, specification and loading
- Road design principles: speed limits, curve radius, crossfall
- Technology as a means of addressing access and safety

Contact

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For more information

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