



Field Test Experimental Design and Test Schedule

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Testing Overview

- Light Vehicle Platform
 - Extended Pilot Test
 - Field Operational Test

- Heavy Truck Platform
 - Extended Pilot Test
 - Field Operational Test

Light Vehicle Extended Pilot and FOT Designs



	Light Vehicle
Extended Pilot FOT	12 participants 4 research vehicles 4 week exposures -26 days treatment
FOT	108 participants 16 research vehicles 6 week exposures - 12 days baseline - 28 days treatment



Light Vehicle Driver Selection

- Participants will use the FOT vehicle in place of their passenger car/light truck
 - Only the participant, trained to use the vehicle, will be allowed to drive
- Three age groups
 - 20-30, 40-50 and 60-70
- Balanced for gender

Light Vehicle FOT Location



- FOT will incorporate a random sample of licensed drivers from SE Michigan
 - Unlimited use in continental U.S.
 - Approximately 23,449 miles of roadway within eight counties
 - Wide diversity of roadway class, volume, terrain and weather



Light Vehicle FOT Scope

- 12 contiguous months
- 108 drivers X 6 weeks = 648 weeks (approx. 12.5 years) of driving
- Extended exposure for 10 young males
 - Approximately 13.5 years of driving



Light Vehicle FOT Data

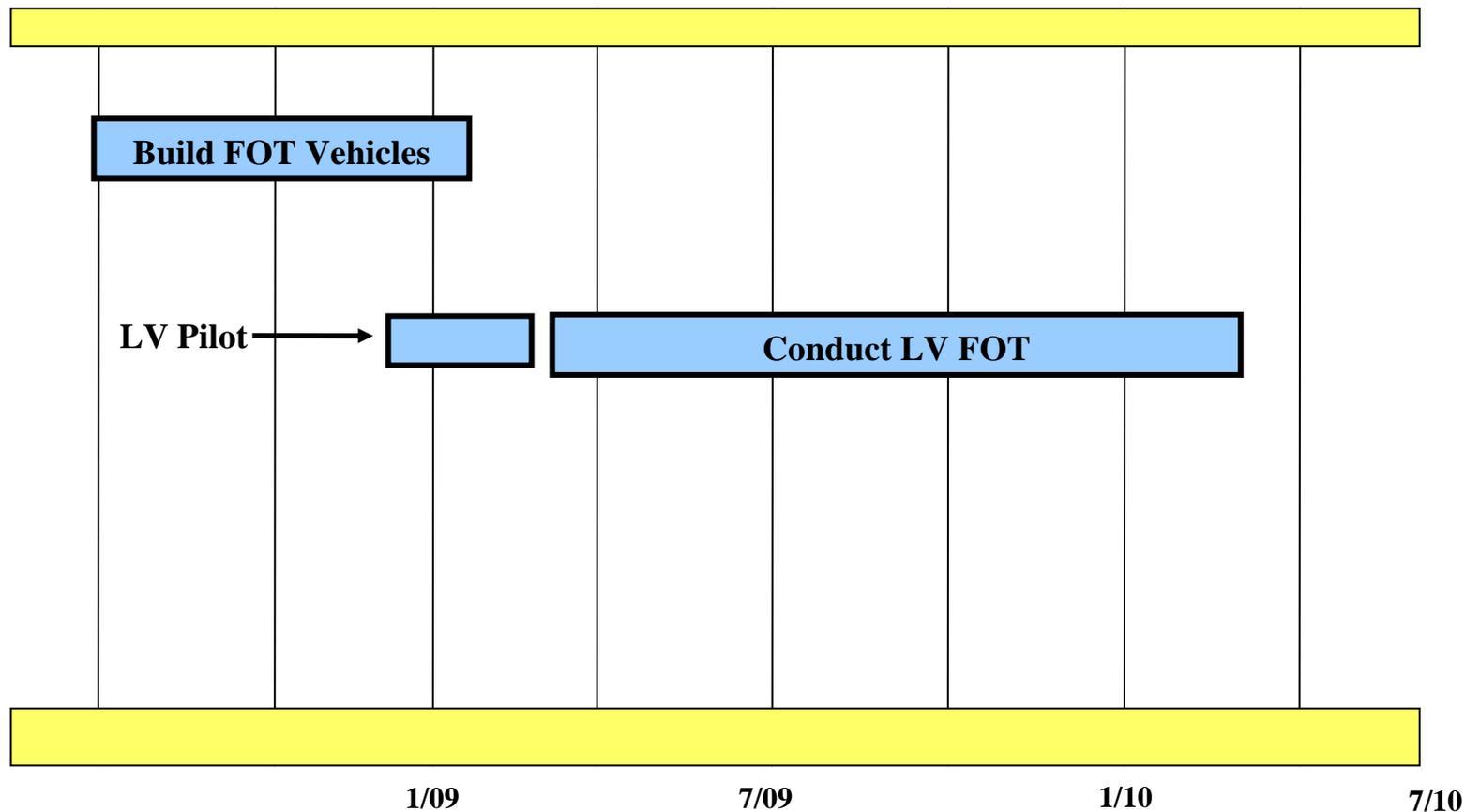


- Subjective data
 - Questionnaires, focus groups, debriefings
- Objective data
 - Turn key data acquisition system
 - Full-time dataset describing:
 - Vehicle performance
 - Driver performance
 - Vehicle location
 - Driving environment





Light Vehicle Test Schedule



Heavy Truck Extended Pilot and FOT Design



	Heavy Truck
Extended Pilot FOT	8 participants 1 research vehicle 1 week exposures - 5 days treatment
FOT	20 participants 10 research vehicles 10 month exposures - 2 month baseline - 8 month treatment



Heavy Truck Fleet Selection

- Con-way Freight
 - Formerly Consolidated Truck Lines
 - Local and regional, less-than-truckload carrier
 - All of the U.S., Canada and parts of Mexico
 - Head-quartered in Ann Arbor
 - 8,300 tractors/24,000 trailers
 - 20,000 employees
- Ann Arbor and Detroit terminals
 - Extended pilot and FOT, respectively



Heavy Truck Driver Selection

- Regular routes run by Con-way are being selected based on the types of business, length and types of roadways used
 - Half long haul (night) and half P&D (daytime)
 - Only trained drivers
- Drivers bid on routes, and bids are awarded based on seniority
- All males ranging in age from 20 - 65



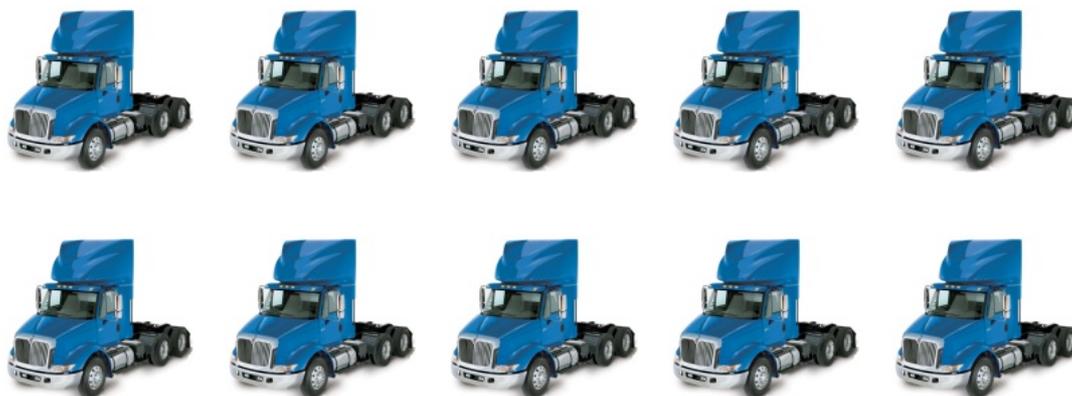
Heavy Truck FOT Location

- Con-way's Detroit terminal based
 - Continental U.S. trips only
 - Pick-up & Delivery in the metro-Detroit region
 - Long haul in Michigan, Ohio, Indiana, and Illinois
 - Wide diversity of roadway class, volume, and weather



Heavy Truck FOT Scope

- Testing will occur over 10 contiguous months
- The volume of data would represent approximately 15 years of truck driving data



Heavy Truck FOT Data

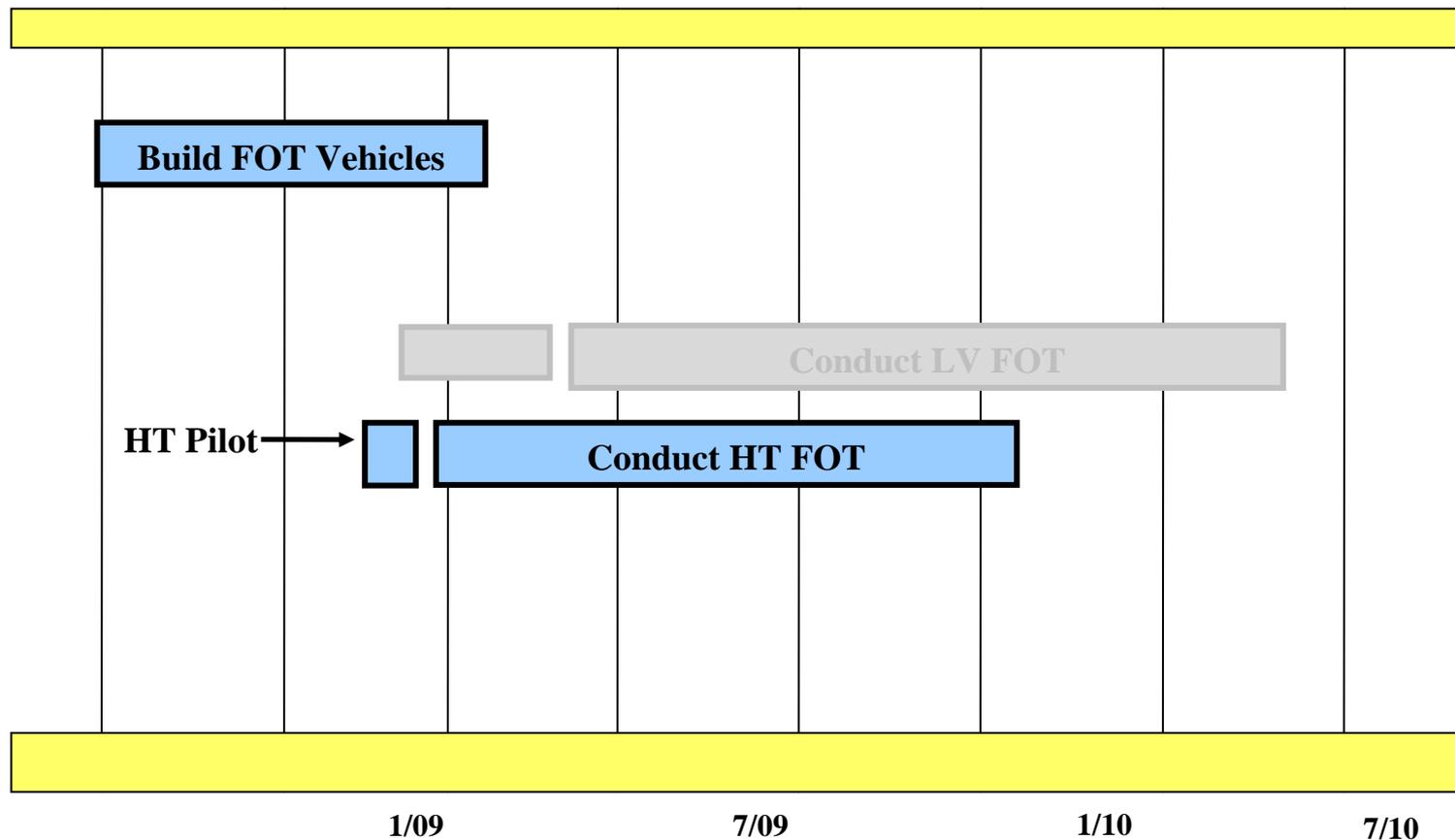


- Subjective data
 - Questionnaires, focus groups, debriefings
- Objective data
 - Multi-CPU DAS, turn key and unobtrusive
 - Full-time dataset describing:
 - Vehicle performance
 - Driver performance
 - Vehicle location
 - Driving environment





Heavy Truck Test Schedule





Questions?

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