

# Timothy S. Leggett, P. Eng., P.E.

## CURRICULUM VITAE

### RELEVANT EXPERIENCE:

- Experience in all aspects of accident reconstruction - winter road maintenance issues (see Addendum Curriculum Vitae), low-speed rear-end analysis including occupant kinematic response, speed determination, time-distance analysis, impact location, motor vehicle/pedestrian interactions, bullet/trajectory analysis, articulated vehicle assessments, bicycle reconstruction, slip and falls and failure analysis of products, structures and processes
- extensive personal and professional knowledge of seagoing vessels
- Occupant position determination, seat belt usage analysis, mechanical component failure causing motor vehicle accident, slip and fall analysis
- Qualified as an expert witness over 425 times in Provincial, Coroner, Justice, Supreme, Federal and Superior Courts of British Columbia, Alberta, Yukon Territory, Ontario, Arizona, Oregon, Washington, California, New Mexico, Illinois, New York, Nevada, Colorado and Oklahoma
- Approximately 5,300 accidents investigated and reconstructed

### ACADEMIC QUALIFICATIONS:

- 1979 - 1981 Vanier College - Diploma of Pure and Applied Science
- 1981 - 1985 McGill University - Bachelor of Engineering, Mechanical
- 1988 University of North Florida - Special Problems in Accident Reconstruction
- 1990 University of Miami - Computer Assisted Accident Reconstruction
- 1996 - IPTM Pedestrian/bicycle accident investigation
- 1999 Society of Automotive Engineers - Accident Reconstruction, "State of the Art" Toptec
- 2000 Society of Automotive Engineers - "Heavy Vehicle Rollover" Toptec
- 2000 Transportation Research Board - Symposium on Snow Removal & Ice Control Technology
- 2000 University of Iowa - "Winter Road Maintenance" civil engineering graduate studies
- 2005 Advanced PC-Crash Course - Vancouver, BC
- 2008 CDR Technician and Data Analyst Certification
- numerous other lectures, presentations and short courses attended

### PROFESSIONAL WORK EXPERIENCE:

- 1990 - Present Accident Reconstruction Engineer, Forensic Dynamics Inc. (principal)
- 1988 - 1990 Accident Reconstructionist, Forensic Dynamics Inc.
- 1985 - 1988 Accident Reconstructionist, Stanley Associates Engineering Ltd.

## **PROFESSIONAL ASSOCIATIONS:**

- Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) - Professional Engineer (P. Eng.), Registration #17136
- State of Arizona Board of Technical Registration - Professional Engineer (P. E.), Registration #36409
- Association of Professional Engineers of Ontario (PEO) - Professional Engineer Registration # 100171696
- Society of Automotive Engineers (SAE) - Member

## **RESEARCH AND PUBLICATIONS**

### **Publications**

- "An Investigation into the Safety Aspects Related to Bunk Securement of B.C. Logging Trucks" - Funded by BC Ministry of Transportation and Highways
- "The Effect of Magnesium Chloride as an Anti-Icing Agent on Tire/Road Friction Co-Efficient", T.S. Leggett (Forensic Dynamics Inc.) and Cpl. E. Brewer (RCMP), March, 1999
- "Temperature and Humidity Effects on the Co-efficient of Friction Value After Application of Liquid Anti-Icing Chemicals", T.S. Leggett, September, 1999
- "Liquid anti-icing chemicals on Asphalt: Friction Trends", T.S. Leggett and G.D. Sdoutz (Forensic Dynamics Inc.), May, 2000
- "Friction Trends of Anti-Icing Chemicals on Tined Concrete", T.S. Leggett and G.D. Sdoutz (Forensic Dynamics Inc.), March, 2001
- "Laboratory Melting Performance Comparison: Rock Salt With and Without Pre-Wetting", C.A. Luker, B.C. Rokosh and T.S. Leggett (Forensic Dynamics Inc.) - Presented to the Transportation Research Board Sixth International Symposium on Snow Removal and Ice Control Technology, Spokane, WA, June 7, 2004

### **Inventions**

- "Friction Sensor" - an in-road stationary friction testing device, with;
- "Flashing Digital Sign" indicating slippery road surface
- "The Cinch" Self-Tensioning Tie Down Safety System (patented)