Schaffnit Consulting Inc

International Workshop on Vehicle Safety Communications - Session 2 -

Tom Schaffnit
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Objective of Vehicle Safety Communications

- Current level of fatalities and injuries due to vehicle crashes is unacceptable to society
- Seatbelts, crashworthiness, airbag approaches are reaching the limits of potential benefits
- Potential for vehicle safety communications to enable or enhance applications that help prevent vehicle crashes
- Also potential for mitigation of impact of vehicle crashes

Annual United States Crash Statistics

According to the United States National Highway Traffic Safety Administration (NHTSA):

- Over 6 million vehicle crashes annually
- Nearly 3 million persons injured
- Over 42,000 fatalities
- Fatalities increased 1.5% for 2002 over 2001
- Average is over 115 fatalities per day
- Over $230 billion annual economic impact

Reference: http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/Rpts/2003/Assess02.pdf

VSC Focus – Prevent/Mitigate Crashes

- Many vehicle safety application scenarios are potentially enabled by wireless communications
- Communications between vehicles, and between vehicles and infrastructure, to warn drivers of dangerous situations and avoid crashes
- Potential for crash severity mitigation, for example:
  - Pre-arming airbags
  - Pre-tensioning seatbelts
- Future developments may possibly allow automated crash avoidance systems, potentially:
  - braking assistance
  - steering assistance