

# PART 7 - AT GM SAFETY IS #1

General Motors, the world's largest vehicle manufacturer has always been a leader in auto safety. GM and their exclusive suppliers were the first to invent, develop, and build many of the safety features we all take for granted. The following is a sample of GM firsts, starting in 1901.



Chuck Nicholson

- 1901 - GM introduces the first speedometer.
  - 1908 - GM introduces the first electric headlamp.
  - 1924 - GM opens the industry's first proving ground facility in Milford, MI.
  - 1928 - GM introduces Safety Plate shatterproof glass on all vehicles windows.
  - 1930 - GM debuts volume production car bodies with slanted windshields to help eliminate nighttime glare from oncoming headlamps.
  - 1934 - GM conducts first barrier crash test.
  - 1939 - GM introduces rear turn signals as standard equipment.
  - 1940 - GM introduces high-speed photography to record and study tests.
  - 1954 - GM develops inverted head form to simulate impact on vehicle's instrument panel.
  - 1961 - GM develops guidelines for shoulder clearance, roadside slope/angle, sign height and guardrail shape, and shares its recommendations with the federal government.
  - 1962 - GM develops the forerunner of the highway median design now used throughout the U.S.
  - 1962 - GM is one of the first to introduce the dual master brake cylinder as standard equipment to help provide backup for brake failure.
  - 1962 - GM begins using high-speed "sled" to simulate actual collision impact.
  - 1966 - GM develops criterion for head injury.
  - 1966 - GM helps the industry develop high penetration-resistant windshield glass.
  - 1967 - GM introduces the first energy-absorbing steering column.
  - 1968 - GM introduces a specially designed child safety seat.
  - 1968 - GM opened a tire and wheel systems laboratory at the Milford Proving Ground.
  - 1969 - GM introduces an infant carrier safety restraint.
  - 1969 - First side-guard door beams debut in GM vehicles, helping improve shallow-angle-side impact protection.
  - 1972 - GM conducts the first large field test of air bags.
  - 1972 - GM develops the Hybrid II crash test dummies.
  - 1972 - GM develops disc brake wear indicator to warn drivers when their brakes need servicing.
  - 1974 - GM offers air bags as a regular protection option in several vehicles.
  - 1977 - GM develops the Hybrid III crash test dummies and shares the designs with the government.
  - 1977 - GM develops an injury criterion for femur (upper leg) fractures.
  - 1982 - GM develops the first child air bag dummy.
  - 1986 - GM is the first domestic automaker to announce plans to standardize outboard lap shoulder belts in the rear seats.
  - 1989 - GM develops a more human-like side-impact crash test dummy, BIO-SID, and a new facial injury assessment technique.
  - 1995 - GM is the first manufacturer to equip daytime running lamps on US vehicles. (Current research shows daytime running lamps reduce daytime multi-vehicle crashes up to 12.5%. To date, GM has sold more than 30 million vehicles in the USA & Canada with daytime running lamps.)
  - 1996 - OnStar, the industry's first embedded safety, security and information system, debuts in some GM vehicles.  
Currently every month OnStar responds to approximately:
    - \* Locates 350 stolen vehicles
    - \* 800 Air bag deployment notifications
    - \* 13,000 Emergency calls
    - \* 18,000 Roadside assistance calls
    - \* 36,000 Remote door unlocks
    - \* 325,000 Routing calls
    - \* 9,000,000 OnStar hands free calling calls
  - 1996 - GM introduces the industry's first side-impact air bags designed to minimize the risk on inflation-induced injuries to children.
  - 1997 - GM introduces stability control which GM brands as StabiliTrak on the Cadillac Seville, which enhances vehicle stability on a variety of road surfaces, particularly on slick surfaces or during emergency maneuvers.
  - 1997 - The federal government makes GM's Hybrid III family of crash test dummies the standard for testing under U.S. regulations.
  - 1997 - GM introduces a tire pressure indicator system. (Currently GM has more vehicles on the road with tire pressure monitors than any other manufacturer.)
  - 1997 - GM develops and introduces the first active front seat head restraint system to help reduce the risk of neck injuries during rear impacts.
  - 1999 - In just 17 weeks, GM researchers, tests and implements a retrofit emergency trunk release handle to help prevent unintentional trunk entrapments among children.
  - 2000 - GM is the first automaker to offer a Night Vision enhancement system. At 60 mph normal headlight drivers have approximately 3.5 seconds reaction time. GM night vision drivers have up to 15 seconds reaction time.
  - 2002 - GM announces that in the 2004 model year, it will begin equipping selected new vehicles with an advanced automatic collision notification system designed to improve emergency response in the event of a crash.
  - 2002 - GM introduces frontal air bag sensors in 2003 large trucks and sport-utility vehicles that will automatically turn off the air bag based on weight of the front passenger seat occupant.
  - 2003 - GM made StabiliTrak standard on 12 and 15 passenger vans. (By 2007, all GM's trucks and SUV's will be fitted with StabiliTrak. The Insurance Institute for Highway Safety said as many as 800,000 of the 2 million single-vehicle crashes that occur each year could be avoided if stability control was standard on all vehicles sold in the U.S.)
- Ever the leader on safety, GM continues its efforts to improve motor vehicle safety in 2005.**
- 2005 - GM announces that by the end of 2007, OnStar will become standard on all new trucks and cars sold in the United States and Canada.
  - 2005 - June 10, 2005 General Motors announced it will build a new rollover testing facility, the centerpiece of \$33 million worth of state-of-the-art crash-testing investments. More than 10,000 people are killed and more than 200,000 are injured in rollover crashes every year, accounting for about one in four highway deaths, according to federal highway fatality statistics. In addition to the rollover facility, GM announced:
    - > \$3 million to upgrade existing adult crash test dummies and to add additional 6-month-old to 10-year-old passenger dummies.
    - > \$8 million for data recording equipment used in crash tests that stores data on the vehicle instead of remotely.
    - > \$6 million for a computer controlled and hydraulically powered acceleration sled that is 2.5 times more powerful than existing sleds.
    - > \$6 million for digital high-speed cameras rugged enough to withstand crash forces and immediately provide detailed images of the test.

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