

Support Information for Using Year 2002 through 2006 MassHighway Crash Data Files As of 1/7/2008

*Note: This document pertains only to year 2002 through year 2006 crash data.
See the file named Support_Information_10-02a for crash data for earlier years.*

The year 2006 crash data files from Mass. Highway are in a format similar to 2002 through 2005 data, but there have been a few changes.

- Beginning with year 2006 data, column "T" has been changed to identify the Non Motorist Type for any Non Motorists that were reported as being involved in a crash. This column replaces redundant street address number and/or street name data that were contained in this column in the year 2004 and 2005 data files.
- A greater percentage of crashes have been geocoded with X and Y coordinates in the last two columns in the data files. (Note that these columns have been excluded from the default print range, but they are included in the data files. For year 2006, about 83% of crash records have X and Y coordinates. However, this is a Statewide average, and does not apply to particular crash locations.
- The year 2006 Statewide crash data contain 149,860 crashes compared to 158,084 crashes in 2005 and 138,635 crashes in 2004. These fluctuations may be in part attributable to different reporting rates by different jurisdictions. Another factor may be changes in data entry procedures at the RMV that resulted in a greater number of operator-only reports being entered in certain years. An Excel file named 'Total Crashes by Town and Year1990-2006.xls' is available to show the differences in total crash reports by city/town from year to year.

Crash data for years 2002 through 2006 are derived from the Registry of Motor Vehicles (RMV) Crash Data System (CDS). The RMV obtains crash reports from local police, State Police, other police agencies, and operators (motorists) who were involved in crashes. The reporting threshold for year 2006 is the same as for prior years: any injury or fatality, or damage to any one vehicle or other personal property in excess of \$1000.

The RMV is dependent upon the cooperation of police agencies and the public in sending crash reports in a complete and timely fashion. MassHighway has processed, geocoded and formatted the RMV crash data and makes the crash data files available upon request.

Attempts have been made to prevent duplicate crashes from appearing in the crash data, however sometimes they occur. If the crash date, time and location are identical (or nearly identical), the crash may be a duplicate, but with a different crash number.

The data MassHighway has supplied is in Microsoft Excel 2003 format. Sorting the data by location may be difficult because of the five different columns that may contain location data. Crash data are not completely standardized. Several different variations of a street name (or other field) may exist. Due to the format of the year 2002-2006 data, searching may be more useful than sorting. Search all five crash location columns for each occurrence of a street name. When selected records are found, they can be copied and pasted into another Sheet in the same Workbook.

Explanation of columns and abbreviations in Excel Spreadsheets

- A. Crash Number** – Unique number used by Registry of Motor Vehicles to identify each crash. Each crash could have several reports: police, operator(s), so this is the master record ID number. There is no relationship between this number and police department incident numbers.
- B. City/Town Name** – The city or town in which the crash occurred. If the crash was reported as occurring in a locality (neighborhood name) within the city or town, this is shown in parentheses after the proper city/town name. However if the crash was just reported as occurring in the city/town (rather than in a locality/neighborhood), then the locality name is not shown. (Therefore, searching/sorting by locality name will not identify all crashes that actually occurred in that locality.)
- C. Crash Date** – Date of the Crash
- D. Crash Time** - Time of Crash
- E. Crash Severity** – Type of Crash
 - Fatal injury
 - Non-fatal injury
 - Property damage only (none injured)
 - Not Reported
 - Unknown
- F. Number of Vehicles** – Total number of vehicles involved in the crash
- G. Total Nonfatal Injuries** - Number of persons injured in the crash excluding fatalities
- H. Total Fatal Injuries** - Number of persons killed in the crash
- I. Manner of Collision** - Manner of Collision or Collision Type
 - Angle
 - Head-on
 - Rear-end
 - Rear-to-Rear
 - Sideswipe, opposite direction
 - Sideswipe, same direction
 - Single vehicle crash
 - Unknown
 - Not reported
- J. Vehicle Travel Directions** – Direction that each vehicle was traveling at time of the crash; V1 = Vehicle 1, V2 = Vehicle 2, etc.

K. Most Harmful Events – Most harmful event for each vehicle. *Only reported if the source of data was from a police report. Not reported if the only source of data was from an operator report.*

- Collision with motor vehicle in traffic
- Collision with parked motor vehicle
- Collision with pedestrian
- Collision with cyclist (bicycle, tricycle, unicycle)
- Collision with animal – deer
- Collision with animal – other
- Collision with moped
- Collision with workzone maintenance equipment
- Collision with railway vehicle (train, engine)
- Collision with other movable object
- Collision with curb
- Collision with tree
- Collision with utility pole
- Collision with light pole or other post/support
- Collision with guardrail
- Collision with median barrier
- Collision with ditch
- Collision with embankment
- Collision with highway traffic sign post
- Collision with overhead sign support
- Collision with fence
- Collision with mailbox
- Collision with impact attenuator/crash cushion
- Collision with bridge
- Collision with bridge overhead structure
- Collision with other fixed object (wall, building, tunnel)
- Collision with unknown fixed object
- Overturn/rollover
- Fire/explosion
- Immersion
- Jackknife
- Cargo/equipment loss or shift
- Other
- Other non-collision
- Unknown non-collision
- Unknown
- Reported but invalid

L. Road Surface Condition –The condition of the road’s surface at the time of the crash

- Dry
- Wet

- Snow
- Ice
- Sand, mud, dirt, oil, gravel
- Water (standing, moving)
- Slush
- Other
- Unknown

M. Ambient Light – Light conditions

- Daylight
- Dawn
- Dusk
- Dark – lighted roadway
- Dark – roadway not lighted
- Dark – unknown roadway lighting
- Other
- Unknown

N. Weather Condition – A maximum of two weather conditions may be reported

- Clear
- Cloudy
- Rain
- Snow
- Sleet, hail, freezing rain
- Fog, smog, smoke
- Severe crosswinds
- Blowing sand, snow
- Other
- Unknown

O. At Roadway Intersection – If crash location information was entered in the AT INTERSECTION side of the report, the route numbers and/or roadway names will appear in this column. The route/roadway where the crash occurred will appear first, followed by a slash (/), followed by up to two combinations of routes and/or roadway names.

P. Distance from Nearest Roadway Intersection – If crash location information was entered in the NOT AT INTERSECTION side of the report, and if the crash was referenced as occurring at some distance and direction from the nearest intersecting street, the crash location information will appear in this column. However, sometimes only a route and/or roadway name will appear, or other information such as address numbers may appear in this column.

Q. Distance from Nearest Milemarker – If crash location information was entered in the NOT AT INTERSECTION side of the report, and if the crash was referenced as occurring at some distance and direction from the nearest milemarker, the crash location information will appear in this column. However, sometimes only a route and/or roadway name will appear, or other information may appear in this column.

R. Distance from Nearest Exit – If crash location information was entered in the NOT AT INTERSECTION side of the report, and if the crash was referenced as occurring at some distance and direction from the exit or interchange, the crash location

information will appear in this column. However, sometimes only a route number or other information may appear in this column.

- S. Address/Distance from Nearest Landmark** - If crash location information was entered in the NOT AT INTERSECTION side of the report, and if the crash was referenced as occurring at a street address or at a landmark, or at some distance and direction from them, the crash location information will appear in this column. However, sometimes only a roadway name, route number, or other information may appear in this column. There may be some data in this column that duplicates data in other crash location columns. Landmark text is limited to a maximum of 32 characters (the portion enclosed by parentheses). Beginning with year 2006 data, address information was eliminated from this column because it usually duplicated information that was already contained in column "P."

- T.** For year 2004 and 2005 data, column "S" was been divided into two columns, "S" and "T." Column "S" contains landmark data, and column "T" contains street address number and/or street name data.

or

- T.** Beginning with year 2006 data, column "T" has been added to this report to identify the **Non Motorist Type** for any Non Motorists that were reported as being involved in the crash. Shown is the Person Number (P1, P2, etc.) for the Non Motorist, followed by that person's role: Pedestrian, Pedalcyclist (bicycle, tricycle, unicycle, pedal car), Skater, Railroad or Trolley Passenger, or Other non-motorist (wheelchair, etc.).

Crash location data in columns O through S or T as described above will only be shown in the format described above if it was correctly entered by police or operators and/or RMV. Offset and/or direction of offset may be missing, or the nearest intersecting street/milemarker/exit number may be missing. Redundant location data sometimes appears in multiple columns due to the format of the report and the desire to attempt to show all crash location data regardless of the type of referencing method used (redundant address data was removed from column "S" beginning with year 2006 data).

- U, V.** Beginning with year 2005 data, columns "U" and "V" have been added to show **X and Y coordinates for crashes that have been geocoded** (located to a point) using a new MassHighway GIS (Geographic Information System) application built by Geonetics, Inc., consultants to MassHighway. Coordinates are only shown for crashes that were successfully geocoded to a point or to an approximate point based on available crash location data. Coordinates are in Massachusetts Mainland State Plane NAD 83 meters. Columns "U" and "V" have been excluded from the default print range in order to keep the font size of printed report pages reasonably legible.