

**Alberta
Traffic Collisions Involving
Motorized Snow Vehicles**

1999 - 2008

Alberta Transportation
Office of Traffic Safety
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**ALBERTA
TRAFFIC COLLISIONS INVOLVING
MOTORIZED SNOW VEHICLES
1999 - 2008**

SUMMARY

The Alberta Collision Information System (ACIS) captures information on motorized snow vehicles involved in reportable traffic collisions. That is, collisions that occur on a roadway and result in death, injury and/or total property damage exceeding \$1,000. For the purpose of collision reporting, a roadway means any provincial highway (#1 – 999), rural road, street, avenue, parkway, lane, alley, bridge (privately or publicly owned) where the public is ordinarily permitted to drive or park vehicles. This would include sidewalks, boulevards and ditches adjacent to and parallel with the roadway. **(Information does not include collisions which occurred on private property.)**

Over the 10-year period, 1999 - 2008, there were 343 collisions involving 371 motorized snow vehicles. 201 (58.6%) of the collisions resulted in either death or an injury. Eight people were killed and 231 were injured in collisions involving a motorized snow vehicle over the 10 years (Table 1).

The afternoon hours of 3 p.m. to 6:59 p.m. experienced one-third (34.4%) of all collisions involving a motorized snow vehicle. The majority (61.8%) of the collisions occurred during hours of reduced winter light or darkness (3 p.m. to 7 a.m.) (Table 2).

From 1999 - 2008, the majority (73.2%) of the snow vehicle operators involved in collisions were between 15 and 44 years of age. Thirteen of the 219 operators (5.9%) involved in casualty producing collisions were between 10 and 14 years of age and 33 were between 15 and 19 years of age (15.1%) (Table 3).

Forty-two (19.2%) of the snow vehicle operators involved in casualty collisions from 1999 - 2008 had consumed alcohol prior to the collision. Five of the nine operators involved in fatal collisions had been drinking prior to the collision (Table 4).

Individuals involved in motorized snow vehicle collisions sustained 103 minor, 128 major and eight fatal injuries over the 10 years (Table 5). For those snow vehicle operators and passengers where helmet use was specified, approximately 35% of those who sustained an injury as a result of the collision were not wearing a helmet at the time of the crash (Table 6).

Environmental conditions over the ten year period are reflected in the number of reported collisions involving motorized snow vehicles. The years which reported the highest total number of collisions occurring in snow, also reported the higher number of motorized snow vehicle collisions.

Table 1

**ALBERTA
COLLISIONS INVOLVING MOTORIZED SNOW VEHICLES
1999 - 2008**

Severity of Collisions	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	TOTAL COLLISIONS
Fatal Collisions	--	--	1	1	--	2	1	1	1	1	8
Injury Collisions	9	13	20	21	22	21	30	20	17	20	193
Property Damage Collisions	22	20	11	6	13	11	19	12	12	16	142
Total Number of Collisions	31	33	32	28	35	34	50	33	30	37	343
Casualties*											TOTAL CASUALTIES
Number Killed	--	--	1	1	--	2	1	1	1	1	8
Number Injured	13	13	21	24	25	24	38	26	24	23	231
Total Casualties in Collisions Involving Motorized Snow Vehicles	13	13	22	25	25	26	39	27	25	24	239
* This refers to the total number of people killed and injured in collisions in which a motorized snow vehicle was involved. It does not refer to only snow vehicle operators and passengers.											
Number of Motorized Snow Vehicles	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	TOTAL SNOW VEHICLES
# Motorized Snow Vehicles in Fatal Collisions	--	--	1	1	--	3	1	1	1	1	9
# Motorized Snow Vehicles in Injury Collisions	9	15	20	21	24	23	37	21	19	23	212
# Motorized Snow Vehicles in Property Damage Collisions	22	20	11	6	14	12	22	12	14	17	150
Total # Motorized Snow Vehicles in Collisions	31	35	32	28	38	38	60	34	34	41	371

Table 2

**ALBERTA
COLLISIONS INVOLVING MOTORIZED SNOW VEHICLES
TIME PERIOD OF OCCURRENCE
1999 - 2008**

	Fatal Collisions	Injury Collisions	Property Damage Collisions	Total Collisions
11:00 p.m. - 2:59 a.m.	2	14	9	25
3:00 a.m. - 6:59 a.m.	--	7	2	9
7:00 a.m. - 10:59 a.m.	--	6	15	21
11:00 a.m. - 2:59 p.m.	3	56	44	103
3:00 p.m. - 6:59 p.m.	--	68	50	118
7:00 p.m. - 10:59 p.m.	2	40	18	60
Unspecified	1	2	4	7
Total Number of Collisions	8	193	142	343

Table 3

**ALBERTA
COLLISIONS INVOLVING MOTORIZED SNOW VEHICLES
AGE OF OPERATORS*
1999 - 2008**

	Fatal Collisions	Injury Collisions	Property Damage Collisions	Total Operators
5 – 9	--	--	--	--
10 – 14	--	13	7	20
15 – 19	1	32	12	45
20 – 24	1	31	22	54
25 – 29	2	25	13	40
30 – 34	2	23	23	48
35 – 39	2	30	12	44
40 – 44	--	21	10	31
45 – 49	--	12	9	21
50 – 54	--	9	5	14
55 – 59	--	7	3	10
60 – 64	--	2	5	7
65 +	1	1	--	2
Unspecified	--	4	18	22
Total Operators of Motorized Snow Vehicles	9	210	139	358

*Does not include 13 parked snow vehicles involved in collisions.

Table 4

**ALBERTA
CASUALTY COLLISIONS INVOLVING MOTORIZED SNOW VEHICLES
HUMAN CONDITION OF OPERATOR*
1999 - 2008**

	Fatal Collisions	Injury Collisions	Total Operators
Apparently Normal	1	123	124
Had Been Drinking	3	30	33
Alcohol Impaired	2	7	9
Total Alcohol Involvement	5	37	42
Unspecified	3	50	59
Total Operators of Motorized Snow Vehicles	9	210	219

* Does not include two parked snow vehicles involved in casualty collisions.

Table 5

**ALBERTA
COLLISIONS INVOLVING MOTORIZED SNOW VEHICLES
INJURY SEVERITY OF CASUALTIES*
1999 - 2008**

Minor	103
Major	128
Fatal	8
Total Number of Casualties	239

* This refers to the **total number** of people killed and injured in collisions in which a motorized snow vehicle was involved. It **does not** refer to only snow vehicle operators and passengers.

Table 6

**ALBERTA
COLLISIONS INVOLVING MOTORIZED SNOW VEHICLES
INJURY SEVERITY
HELMET USE OF CASUALTIES*
1999 - 2008**

Injury Severity	Helmet Used	Helmet Not Used	Unspecified	Total Operators & Passengers of Motorized Snow Vehicles
Minor	60	34	2	96
Major	75	40	9	124
Fatal	3	5	--	8
Total	138	79	11	228

* Includes only those cases where injury severity was specified on the collision report form. Does not include the 11 other persons who were injured as a result of the collision but who were not operators or passengers of snow vehicles.