SNOWMOBILING IN SWEDEN 2014 – TRENDS, ACCIDENTS AND ATTITUDES TO RISK

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- Sweden has in 2014 about 285,000 snowmobiles, in 1975 the numbers were around 25,000. The annual sales is about 10,000. 70% of sold snowmobiles are mountain/crossovers.

- In ten years, more than 100 snowmobilers have got killed in accidents and more than 1300 accidents with injuries has been registered.

- Only two of those has though been officially avalanche related.
1. INTRODUCTION

- The project was conducted by the Swedish Mountain Safety Council together with National Snowmobile Council in collaboration with the snowmobile magazines Snowmobile and Snowrider and other forums.

- The results generated in the survey, is to form the basis for continued communication with the snowmobile riders about risks, safety awareness and attitudes and also create better education tools for snowmobilers.
1. INTRODUCTION

Snowmobile related accidents in Sweden 2005-2014
(SNOFED 2014)
n = 102
1. INTRODUCTION

- 10 years fatality rate (2005 - 2014) is 102
- 2013/2014 has 7 snowmobile fatalities so far
- Of those who died between of 2006 and 2012, was more than half drunk, with an average of 1.9 ppm of alcohol in the blood, which is well above the threshold for aggravated drunk driving (0.2 ppm).
- A previous analysis has also shown that many of the fatalities are related to drownings associated with driving on the ice.
1. INTRODUCTION

Avalanche related fatalities in Sweden 2003-2014

(LTU, Police MRC 2014)

n = 9

- Skiers
- Snowmobilers
- Others
- Linear (Snowmobilers)
1. INTRODUCTION

Avalanche related fatalities in Norway 2003-2014 (NGI 2014)
n= 67

- Skiers: 64%
- Snowmobilers: 19%
- Others: 16%

Linear (Snowmobilers)

1. INTRODUCTION
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1. INTRODUCTION
2. METHOD
2. METHOD

• A web survey was conducted between the 17th of February to 10th of March 2014 and was distributed via social media forums who snowmobile freeriders using.
• A total of 24 questions.
• 2917 respondents participated
• The topics highlighted various aspects of snowmobiling such as riders’ profile, experience of snowmobiling, riding habits, location of riding, use of safety equipment, risk-taking, avalanche awareness, experiences of accidents and changes in behaviour.
2. METHOD

VI BEHÖVER DIN HJÄLP MED ÅRETS VIKTIGASTE SNÖSKOTERUNDERSÖKNING!
2. METHOD

Validity

• Do the survey describe the Swedish snowmobilers who have been or will be possible be killed in future accidents?

• We compared the statistical information for all Swedish snowmobile related victims between 2003 and 2013 with the corresponding data from the survey

• Both distribution of gender and age in recorded accidents correlated well with the group that answered the survey
3. RESULTS
3. RESULTS

• 39 % were 30 years or younger, 27 % between 31 to 40 years, 31 % between 41 - 60 years and 2 % older than 60 years. 90 % men and 10 % women.

• 1901 respondents (60 %) define themselves as freeriders. The rest of the respondents mainly focus on riding along snowmobile trails.

• 1022 respondents (34 %) answered that they often or sometimes ride in potential avalanche terrain.
General snowmobiling and Mountain Experience

3. RESULTS

How many years have you been riding a snowmobile?

- 1 – 5 years: 10%
- 6 – 10 years: 19%
- 11 – 20 years: 34%
- 21 – 30 years: 24%
- More than 30 years: 14%

Base: Regularly ride in avalanche terrain
3. RESULTS

Use of Avalanche and Safety Equipment

What kind of safety equipment do you normally bring when driving a snowmobile?

- Cell-phone: 98%
- Helmet: 94%
- Shovel: 74%
- GPS-navigator: 34%
- Positioning app for my smartphone: 20%
- Avalanche probe: 14%
- Transceiver/avalanche transmitter: 14%
- Communications radio: 8%

Base: Regularly ride in avalanche terrain (sometimes + often)
3. RESULTS

Does it happen that you drive a snowmobile in terrain that you are aware might be avalanche hazardous?

- No, never: 62%
- Yes, sometimes: 32%
- Yes, often: 2%
- Don't know: 4%

Base: All respondents
3. RESULTS

Avalanche Knowledge and Awareness

How would you estimate your own knowledge about avalanches and avalanche safety?

- Very good: 8%
- God: 23%
- Fair: 38%
- Limited: 31%

Base: Regularly drive in avalanche terrain
3. RESULTS

How important is it to take advantage of avalanche information about the terrain where you will be riding snowmobile the coming few days?

- Very important: 19%
- Important: 43%
- Quite important: 26%
- Not at all important: 6%
- Don't know: 5%

Base: Regularly ride in avalanche terrain
Experience of avalanche incidents

3. RESULTS

Have you ever been taken by an avalanche while riding a snowmobile? (Multiple answers possible)

- No: 81%
- Yes, a minor avalanche: 17%
- Yes, a major avalanche but I managed to stay on the surface: 3%
- Yes, a major avalanche where I was buried: 1%

Base: Regularly ride in avalanche terrain
3. RESULTS

To what degree do you agree with the following statement? "In order to have good snowmobiling I have to be ready to take risks?"

- Agree completely: 15%
- Partly agree: 43%
- Do not agree at all: 41%
- Don't know: 1%

Base: Regularly riding in avalanche terrain
Future trends

3. RESULTS

How do you believe your snowmobiling will develop the coming years?

- No difference from today: 62%
- More driving outside the snowmobile trails than today: 28%
- Less driving outside the snowmobile trails than today: 6%
- Don't know: 4%

Base: All respondents
4. CONCLUSIONS
4. CONCLUSIONS

- Apparently more avalanche-related snowmobile accidents happens than is to be found in the official statistics but without loss of lifes
- Very few snowmobilers is using avalanche safety equipment, that has to be changed
- Much more riders than was previously known has been involved in avalanche incidents.
- The future of snowmobiling seems to be more and more freeriding.
4. CONCLUSIONS

• It’s a fact that more snowmobilers than ever is practicing freeriding often in steep and potential avalanche terrain and the future trend is rising fast.
• Many snowmobilers are less prepared regarding knowledge and use of avalanche safety equipment than other target groups like skiers in average
• Likely a growing number of accidents with more victims in the future
• The snowmobilers knowledge about avalanche safety needs to be raised to avoid a probable future increase in avalanche related snowmobile accidents in Sweden
4. CONCLUSIONS
5. DISCUSSIONS

• Are the relatively few documented avalanche accidents just a coincidence or do Swedish snowmobilers use the terrain different than in North America or is there a difference in attitudes towards risk?

• Is the relatively few accidents related to the development of stronger snowmobiles, more well protected drivers which makes more protected from damage when buried?
5. DISCUSSIONS

• Has the few official accidents and fatalities in avalanche accidents to do with the midwinter arctic darkness and the severe cold when few snowmobilers practise freeriding?.

• How high is the impact regarding snowmobile related accidents on the resources of Mountain Rescue?

• The value of potential saved lifes is big. Every year the value of lost lifes is around 50 million dollars in average (10 fts- ASEK 5.1) How many lifes can be saved by working better with prevention measures?
6. PRACTICAL RELEVANCE?

• The results will be of importance when develop communication strategies aimed for snowmobilers

• The survey has contributed well to an ongoing discussion regarding mountain safety awareness

• The results will also be used when developing education programs aimed for snowmobilers

• The results will also be used in defining areas of future research.
We also want to thank Björn Friström, president of the Snowmobile Magazine Snowrider for all support and efforts in order to reach the respondents in the survey.

THANKS FOR A FANTASTIC ICAR IN LAKE TAHOE!
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