



UNITED STATES  
CONSUMER PRODUCT SAFETY COMMISSION  
WASHINGTON, DC 20207

VOTE SHEET

DATE: JUL 17 2003

TO: The Commission  
Todd A. Stevenson, Secretary

THRU: W.H. DuRoss, III, General Counsel *WD*  
Stephen Lemberg, Assistant General Counsel for Regulatory Law *SL*

FROM: Lowell F. Martin, Attorney-Advisor, GCRA (ext. 7628) *LFM*

SUBJECT: Petition to Require Performance Standards for Auxiliary Hazard Lighting Systems on Snowmobiles (CP 02-2)

Ballot Vote Due JUL 30 2003

The attached staff briefing package recommends that the Commission deny petition CP 02-2 requesting a mandatory performance standard for auxiliary hazard lighting systems on snowmobiles.

Please indicate your vote on the following options.

I. DENY PETITION CP 02-2 AND ISSUE THE DENIAL LETTER AS DRAFTED.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

II. DENY PETITION CP 02-2 AND ISSUE THE DENIAL LETTER WITH REVISIONS.  
(PLEASE SPECIFY.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

CPSC Hotline: 1-800-638-CPSC(2772) ★ CPSC's Web Site: <http://www.cpsc.gov>

NOTE: ~~This document~~ has not been reviewed or accepted by the Commission.

Initial tlb Date 7/21/03

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7/21/03  
No Mfrs, Distributors or  
Products Identified  
Excepted by Pet product  
Firms Notified,

III. GRANT PETITION CP 02-2 AND DIRECT STAFF TO PREPARE A DRAFT ADVANCE NOTICE OF PROPOSED RULEMAKING FOR COMMISSION CONSIDERATION.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

IV. TAKE OTHER ACTION. (PLEASE SPECIFY.)

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\_\_\_\_\_

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

*Attachment: Briefing Package, Petition CP 02-2: Petition to Require Performance Standards for Auxiliary Hazard Lighting Systems on Snowmobiles, June 2003*

**BRIEFING PACKAGE**

Petition CP 02-2:  
Petition to Require Performance Standards for  
Auxiliary Hazard Lighting Systems on Snowmobiles

June 2003

For additional information contact:

Timothy P. Smith, Project Manager  
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## EXECUTIVE SUMMARY

In correspondence dated February 8, 2002, Allen J. Lakosky and Michelle Robillard of Snow Glow® Inc. petitioned CPSC to issue a mandatory rule prescribing performance standards for auxiliary hazard lighting systems on snowmobiles. The petition (CP 02-2) was docketed on March 15, 2002 under provisions of the Consumer Product Safety Act (CPSA).

The petitioner's proposed system is, in essence, a lighting system that consumers can switch on if their snowmobile stalls or is otherwise disabled. Currently, snowmobiles provide lighting through the use of headlights and taillights, which enable the snowmobile operator to see the immediate terrain and increase the visibility of the snowmobile to others. The lights on most snowmobiles, however, cannot illuminate once the vehicle has been shut off. This is partially because most snowmobiles do not have a battery or other source of backup power.

The petitioner asserts that snowmobiles lacking auxiliary hazard lighting systems pose an increased risk of collisions between snowmobiles and serious injury or death to the operator of either snowmobile involved. The petitioner further asserts that the lack of auxiliary hazard lighting "presents an unreasonable risk of injury to a snowmobile operator in dark conditions." To support its claim, the petitioner provided CPSC with testimonials of snowmobile operators, samples of CPSC injury and fatality reports, and other articles and information obtained from snowmobile manufacturers, industry-related agencies and organizations, law enforcement, the insurance industry, and others.

CPSC staff analyzed the information provided by the petitioner, public comments in response to the petition, and other available information. Only a small percentage of snowmobile-related injuries and deaths involve collisions with a snowmobile, pedestrian, or unknown vehicle, and these are the only cases that might contain incidents that could be addressed by auxiliary hazard lighting. Although the petitioner's proposed lighting could, in principle, reduce the likelihood of a collision by increasing the visibility of a stalled or otherwise disabled snowmobile, this is only likely to be the case if the operator of the moving snowmobile has an unobstructed view of the stationary snowmobile. Furthermore, the incidents falling into the hazard pattern of interest often lack key details, such as the characteristics and conditions of the terrain, the speed of the moving snowmobile, and whether the struck snowmobile was stopped and not running when the incident happened. These and other circumstances surrounding the incidents could make the presence of auxiliary hazard lighting irrelevant or prevent an increase in visibility from translating into a reduction in injuries. This suggests that auxiliary hazard lighting is likely to prevent only a minor portion of the aforementioned incidents.

The staff believes that the need for a mandatory rule for auxiliary hazard lighting systems on snowmobiles is unsupported by the available injury and incident data. Additionally, the staff estimates that the potential benefits of auxiliary hazard lighting, in terms of reduced hazard costs, are unlikely to equal or exceed the costs of mandating such a system.

CPSC staff recommends that the Commission deny the petition.



UNITED STATES  
 CONSUMER PRODUCT SAFETY COMMISSION  
 WASHINGTON, DC 20207

MEMORANDUM

Date:

JUL 17 2003

**To:** The Commission  
 Todd A. Stevenson, Secretary

**Through:** W.H. DuRoss, III, General Counsel *W.D.R.*  
 Patricia M. Semple, Executive Director *PS*

**From:** Jacqueline Elder, Assistant Executive Director,  
 Office of Hazard Identification and Reduction  
 Timothy P. Smith, Project Manager, Division of Human Factors *TS*

**Subject:** Petition to Require Performance Standards for Auxiliary Hazard Lighting  
 Systems on Snowmobiles (Petition CP 02-2)

The staff of the U.S. Consumer Product Safety Commission (CPSC) has prepared this briefing package in response to a petition requesting that the Commission issue a mandatory rule prescribing performance standards for auxiliary hazard lighting systems on snowmobiles.

**I. BACKGROUND**

In correspondence dated February 8, 2002, Allen J. Lakosky and Michelle Robillard of Snow Glow® Inc.—hereafter referred to as the petitioner—petitioned CPSC to issue a mandatory rule prescribing performance standards for auxiliary hazard lighting systems on snowmobiles. The petition (CP 02-2), a copy of which can be found in Tab A, was docketed on March 15, 2002 under provisions of the Consumer Product Safety Act (CPSA).

The petitioner's proposed system is, in essence, a lighting system that consumers can switch on if their snowmobile stalls or is otherwise disabled. Currently, snowmobiles provide lighting through the use of headlights and taillights, which enable the snowmobile operator to see the immediate terrain and increase the visibility of the snowmobile to others. The lights on most snowmobiles, however, cannot illuminate once the vehicle has been shut off. This is partially because most snowmobiles do not have a battery or other source of backup power.

Specifically, the petitioner requested that all new production snowmobiles be equipped with auxiliary hazard lighting systems that

- have an energy power source separate from the main power source of the snowmobile.
- operate for a minimum of 40 hours at 0 degrees Fahrenheit and function in temperatures of minus 30 degrees Fahrenheit or colder.

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 No Mfrs/PrvtLbrs or  
 Products Identified  
 Excepted by Patricia Semple

- have an on-off switch that is separate from the main electrical system.
- emit a yellow light from the front of the snowmobile and red from the rear.
- have a flashing display visible in unobstructed darkness from at least one-half mile distance from the front and rear of the snowmobile.

The petitioner did not provide a rationale for each of these specific requirements, but they are generally consistent with the attributes of the Snow Glow® hazard lighting system sold by the petitioner. The petitioner asserts that snowmobiles lacking such systems pose an increased risk of collisions between snowmobiles and serious injury or death to the operator of either snowmobile involved. The petitioner further asserts that the lack of auxiliary hazard lighting “presents an unreasonable risk of injury to a snowmobile operator in dark conditions.”

## II. TECHNICAL STAFF ASSESSMENT

### A. INFORMATION PROVIDED BY PETITIONER (Tab A)

To support its claim, the petitioner provided CPSC with testimonials of snowmobile operators, samples of CPSC injury and fatality reports, and other articles and information obtained from snowmobile manufacturers, industry-related agencies and organizations, law enforcement, the insurance industry, and others. Some testimonials are in the form of informal survey data collected by the petitioner. For several reasons, CPSC staff considers these survey data to be biased. The nature of the survey suggests that respondents are not a random sample of snowmobile operators. For example, because the survey appeared on the petitioner’s website, which advertises its hazard lighting system, respondents are likely to be interested in such a system and to find such a system useful. The survey also specifically states that “a built-in hazard light system could be a life saver,” thereby leading respondents to the answers desired by the petitioner. One question in particular begins by telling the reader that an auxiliary hazard lighting system “has been called by some the most essential and invaluable safety feature yet introduced to the sport of snowmobiling.” This, again, is likely to bias the responses.

Because they are anecdotal, the testimonials supplied by the petitioner are inadequate to establish that the lack of auxiliary hazard lighting on snowmobiles presents an unreasonable risk of injury to consumers. Although those who offered testimony may believe that such lighting is useful or could prevent snowmobile collisions associated with stalled or otherwise disabled snowmobiles, they have provided no other evidence to support this. In addition, the desire for an auxiliary hazard lighting system does not necessarily mean that a system of this kind is needed or should be mandatory for all snowmobiles, especially since a system of this kind is already available to consumers through Snow Glow® Inc.

The CPSC incident data supplied by the petitioner consist of 38 reported incidents from CPSC’s Injury and Potential Injury Incident Database (IPII). The petitioner selected these incidents from 729 reported snowmobile incidents between 1995 and October 2001 that were obtained from CPSC. The petitioner misrepresents these 38 incidents as “random samples.” Twenty-five are identified as cases that could have been addressed by the proposed auxiliary hazard lighting system. This proportion of addressable incidents—nearly 66% of the incidents supplied—is



inconsistent with the proportion of potentially addressable incidents identified in CPSC staff's evaluation of the data, as discussed in the sections that follow.

The remaining articles provided by the petitioner reinforce the petitioner's assertion that nighttime riding is particularly problematic. Yet much of the emphasis in these articles is on excessive speed and alcohol use, not on collisions with disabled snowmobiles that were unseen. One article does cite an example of a disabled snowmobile that was struck by another while on a lake (Barlow, 1996), a scenario that seems preventable by auxiliary hazard lighting but one that is not the primary focus of the article.

## B. MARKET INFORMATION (Tab B)

CPSC staff from the Directorate for Economic Analysis (EC) identified four major snowmobile manufacturers: Arctic Cat, Bombardier (Ski-Doo), Polaris, and Yamaha. These four account for nearly all snowmobile sales in the U.S.<sup>1</sup> Estimates by the International Snowmobile Manufacturers Association (ISMA), which represents the four major manufacturers, show that annual U.S. retail sales of snowmobiles during the past several years have ranged from 134,000 to 170,000 units, with estimated sale values of \$800 million to \$1 billion. The average retail price of a new snowmobile is estimated to be in the range of \$5,800 to \$7,000. Laws in major snowmobiling states require registration of vehicles if they are to be used by private individuals. Based on this state registration data, 1.65 million snowmobiles were in use in 2001.

According to *Nonroad Recreational Vehicle Technologies and Costs*, a July 2001 report for the Environmental Protection Agency (EPA) by Arthur D. Little-Acurex Environmental, snowmobiles are used 57 hours a year, on average, over an expected product life of nine years. ISMA estimates that the average snowmobile operator rides a snowmobile 960 miles each year, and that as much as 80 to 90% of snowmobile riding takes place on the more than 150,000 miles of signed and maintained snowmobile trails in the U.S. These trails have been developed by snowmobile clubs and associations, usually in cooperation with state and local governments.

## C. CPSC INCIDENT DATA (Tab C)

To help determine the actual risk posed by snowmobiles lacking auxiliary hazard lighting, CPSC staff from the Directorate for Epidemiology's Division of Hazard Analysis (EPHA) reviewed available data in CPSC files on injuries and deaths associated with snowmobiles. The hazard pattern of interest—that is, the hazard pattern that the petitioner proposes would be addressed by auxiliary hazard lighting—involves a moving snowmobile running into a stopped and shut-down snowmobile or a person near such a snowmobile. More specifically, the incidents of interest would be those in which visibility is reduced due to the time of day (nighttime), poor weather, or similar conditions, because the petitioner's claimed benefit of an auxiliary hazard lighting system is that it increases the visibility of a snowmobile that has stalled or is otherwise disabled.

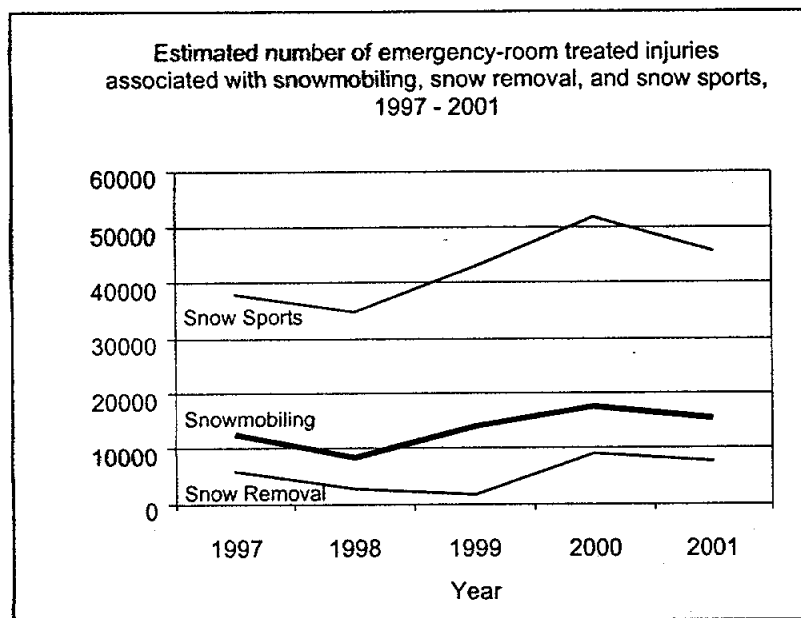
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<sup>1</sup> The Environmental Protection Agency (EPA), in *Draft Regulatory Support Document: Control of Emissions from Unregulated Nonroad Engines* (2001), identified a few other small manufacturers whose combined sales account for well under 1 percent of the total U.S. snowmobile market.

### Emergency-Room Treated Injuries (NEISS data)

Based on National Electronic Injury Surveillance System (NEISS) estimates for January 1, 1997 through December 31, 2001, approximately 13,640 snowmobile-related injuries are treated in hospital emergency rooms each year. About 62% of the estimated injuries happen to people between the ages of 25 and 64, and nearly 27% of the estimated injuries involve consumers 15 through 24 years of age. Three-fourths of the injuries are to males. As is evident in Figure 1, the trend for the frequency of these injuries is similar to the injury frequency trends for other snow-related activities.<sup>2</sup> This suggests that year-to-year fluctuations in injury frequency are likely due to differences in weather and patterns of use rather than to some aspect of the snowmobile itself.

Disposition data show that snowmobile-related injuries needed additional treatment, such as hospitalization or further observation, more often than injuries associated with other consumer products (13% versus 4.7%), indicating that injuries associated with snowmobiles tend to be more severe, on average.



**Figure 1.** Injury frequency trend for snowmobiling compared with snow removal and snow sports. Based on Figure 2 in EPA staff memorandum (Tab C).

An analysis of 2001 NEISS data found that nearly three out of every four injuries associated with snowmobiles (about 73%) involved cases that auxiliary hazard lighting would almost certainly have failed to prevent. These included scenarios such as the snowmobile operator falling off a snowmobile, being thrown off a snowmobile, or driving a snowmobile into a tree, among others. About 6% of injuries associated with snowmobiles involve a collision with another snowmobile, collision with a pedestrian, or collision with an unknown vehicle. These are the only hazard patterns or scenarios that might contain cases addressable by auxiliary hazard lighting. The NEISS data, however, include only short descriptions of the incidents and generally lack details that would provide insight into whether auxiliary hazard lighting systems could have prevented them. For example, among those incidents involving collisions with other snowmobiles, most do not state whether the struck vehicle was stopped and not running. Information on the time of day, lighting conditions, and precise location of the snowmobile is often lacking. Few incidents involving collisions with a pedestrian specify whether the pedestrian was a snowmobile operator near a disabled snowmobile. In addition, collisions with unknown vehicles were included in this

<sup>2</sup> The trend for injuries associated with snowmobiles was compared with the trends for injuries associated with snow sports (skiing, snowboarding, snow tubing, and sledding injuries, averaged) and snow removal (snow thrower and shoveling injuries, averaged).

hazard pattern simply because they could not be ruled out. The potential influence of these factors suggests that auxiliary hazard lighting could affect only a portion of this 6%. Unspecified incidents account for approximately one-fifth (21%) of snowmobile-related injuries, and might include a small percentage of cases that could be addressable by auxiliary hazard lighting.

*Reported Incidents and Deaths (IPII and DTHS data)*

EPHA staff reviewed reports of 460 non-fatal incidents associated with snowmobiles from January 1, 1992 through December 31, 2001, and believes three of these may fall within the hazard pattern of interest. One reportedly happened at night; the lighting conditions of the other two are unknown. Six other incidents might follow the hazard pattern of interest, but the staff cannot draw definite conclusions due to the lack of details surrounding these incidents. For example, if an incident stated that a snowmobile was struck, it may fail to specify whether the struck snowmobile was running at the time.

CPSC has reports of 1,420 snowmobile-related deaths from January 1, 1992 through December 31, 2001. About 10% of these involve collisions with a snowmobile that might have been disabled, a pedestrian, or an unknown vehicle. These might include incidents auxiliary hazard lighting could address. Of these, four were identified as falling into the hazard pattern of interest. Eleven other cases may be in the hazard pattern of interest, but lighting conditions and other relevant details from which to draw a conclusion were not reported. About 15% of the reported deaths are unspecified, and might include cases that are addressable by auxiliary hazard lighting. However, most deaths for which a hazard pattern can be discerned involve terrain hazards (approximately 56%), such as striking a tree or pole, or falling through ice and drowning. Therefore, EPHA staff believes most unspecified deaths are also likely to be of this type, and would not be preventable by auxiliary hazard lighting systems.

D. HUMAN FACTORS ASSESSMENT (Tab D)

*Likelihood of Exposure to Hazard Pattern*

Exposure to the hazard pattern of interest requires that a snowmobile be stopped, not running, and positioned in the path of travel of other snowmobiles. CPSC staff from the Division of Human Factors (ESHF) identified mechanical breakdown, resting, map reading, sightseeing, and coordination and conversation with other snowmobile operators as examples of likely scenarios in which these conditions may apply. Snowmobile training courses and safety flyers teach that a snowmobile operator should pull completely off a trail when stopping, but this may not always be possible. If the snowmobile breaks down it may simply stall or stop running, possibly in the middle of the trail. While trying to restart the snowmobile or to remove it from the trail, the consumer is at risk of being struck by another snowmobile. Narrow trails and road shoulders may make it difficult for the consumer to pull completely off a trail. Furthermore, snowmobile operators are generally free to ride off trails and on fields or frozen lakes, in which case the entire riding surface may be in the path of snowmobile traffic. Thus, it is foreseeable that snowmobiles and snowmobile operators will occasionally be stopped<sup>3</sup> in the path of snowmobile traffic.

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<sup>3</sup> For the rest of this section, a "stopped" snowmobile refers to one that is stopped and not running.

One's ability to avoid a stopped snowmobile is primarily dependent on two factors: the operator's response time and the stopping distance of the snowmobile once the brakes have been applied. Among those states with minimum nighttime headlight-distance requirements, most require as little as 100 feet.<sup>4</sup> This is a rough estimate of the shortest distance at which the operator of a moving snowmobile may notice a stopped snowmobile that lacked auxiliary hazard lighting, assuming the operator is alert and has an unobstructed view of the snowmobile in complete darkness. The response time of the operator, however, depends on more than seeing and identifying a stopped snowmobile. The operator must also decide on the correct response, which may include braking or other avoidance behavior. Available reaction- and response-time research, when combined with the results from snowmobile braking-distance tests conducted by the Snowmobile Educational Safety Research Association (SESRA) in a variety of traction conditions, suggest that a snowmobile traveling at only 30 mph would require more than 100 feet to stop. Icy conditions or greater snowmobile speeds would lead to longer stopping distances, as would operator fatigue and alcohol use because these factors have been found to increase operator response times; alcohol is often cited in articles as a significant factor in nighttime snowmobile accidents. ESHF staff is aware of only five states that post speed limits on maintained trails, and four of these are generally set at 45 mph or more.<sup>5</sup> Other states tend to limit speed to "reasonable and prudent," "safe and reasonable," or similar language that is open to interpretation by the consumer. Based on the above findings, ESHF staff believes that even consumers who adhere to posted speed limits could frequently overdrive their headlights and be at risk of running into a stopped snowmobile.

#### *Potential Effectiveness of Auxiliary Hazard Lighting*

The petitioner's description of the auxiliary hazard lighting system having flashing lights on the front (yellow) and rear (red) is similar to the hazard lighting available on automobiles. ESHF staff believes that the meaning of these lights—that a disabled vehicle is ahead and one should proceed with caution—would generalize from automobile driving to snowmobile operating. Additionally, the eye is generally attracted to areas of greater information, including signs, lights, people, flickering or flashing stimuli, and large or moving objects, and night riding on a snowmobile is likely to present consumers with little distracting information. Therefore, ESHF staff believes that a flashing auxiliary hazard lighting system that is visible to moving snowmobile operators could alert them to the presence of a stopped snowmobile before they would otherwise have seen it. However, daylight, poor weather, and terrain conditions that obstruct the view of the stopped snowmobile and auxiliary hazard lighting system would reduce its effectiveness.

ESHF staff reviewed the reported fatal and nonfatal incidents identified by EPHA staff as potentially falling within the hazard pattern of interest. Details are limited and in-depth investigations are not available from which to draw definite conclusions about the potential effectiveness of an auxiliary hazard lighting system in these incidents. As discussed in Section II.C, *CPSC Incident Data*, often the time of day is not stated or it is not clear whether the struck

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<sup>4</sup> Maine, New Jersey, New York, Ohio, and Pennsylvania have minimum headlight requirements of 100 ft. Wisconsin requires 200 ft and Illinois requires 500 ft.

<sup>5</sup> Idaho limits speeds to 45 mph on trails, Minnesota limits speeds to 50 mph, and Wisconsin limits speeds to 50 mph at night only. New Hampshire limits speeds to 45 mph unless posted otherwise. Colorado posts speed limits, but ESHF staff was unable to determine if there is a specific statewide limit.

snowmobile was stopped when the incident happened. Even among those incidents that involved a stopped snowmobile at night, ESHF staff believes the other circumstances surrounding the incidents raise doubt about the effectiveness of an auxiliary hazard lighting system in preventing them. For example, in some incidents the riders had been previously riding or racing together,<sup>6</sup> so the rider who struck the stopped snowmobile may have known the location of the stopped snowmobile and simply could not avoid it. In one incident, the operator of the stopped snowmobile was performing maintenance on the snowmobile in the middle of the night.<sup>7</sup> It seems logical to conclude that some source of lighting may already have been in use and could have been visible to the operator of the moving snowmobile. Ultimately, ESHF staff believes that auxiliary hazard lighting systems would have little effect on the incidents reported to CPSC.

#### E. ELECTRICAL ENGINEERING ASSESSMENT (Tab E)

As stated in the *Background* (Section I), the petitioner seeks a rule that requires all new production snowmobiles to have auxiliary hazard lighting systems that

- have an energy power source separate from the main power source of the snowmobile.
- operate for a minimum of 40 hours at 0 degrees Fahrenheit and function in temperatures of minus 30 degrees Fahrenheit or colder.
- have an on-off switch that is separate from the main electrical system.
- emit a yellow light from the front of the snowmobile and red from the rear.
- have a flashing display visible in unobstructed darkness from at least one-half mile distance from the front and rear of the snowmobile.

The petitioner did not provide a rationale for each of these requirements, but CPSC staff from the Division of Electrical Engineering (ESEE) believes that incorporating an auxiliary hazard lighting system with these features into snowmobile designs is technically feasible. In fact, the Snow Glow® system sold by the petitioner appears to meet or exceed these requirements. The Snow Glow® system is a retrofit kit that consists of yellow and red super-high-brightness light emitting diodes (LEDs)—for front and rear lights, respectively—powered by a replaceable lithium energy cell. CPSC staff did not specifically evaluate whether the above requirements would be considered reasonable, because the staff believes performing such an evaluation before it has been established that auxiliary hazard lighting is reasonably necessary is premature. ESEE staff did, however, review relevant voluntary standards for snowmobiles to identify any potential sources of conflict.

No mandatory consumer product standards exist for snowmobiles. According to ISMA, all snowmobiles made by the four major manufacturers and one other manufacturer are certified by an independent test laboratory under a certification program administered by the Snowmobile Safety Certification Committee (SSCC). Certified snowmobiles are marked with an SSCC label, and only manufacturers who are members of the SSCC are eligible to participate in this program.

<sup>6</sup> Incident numbers G0010033A, G9810329A, and G9720391A.

<sup>7</sup> Incident numbers G9720391O and G9720391P. This is a single incident that resulted in two deaths.

Some applicable component/subsystem standards that are referenced by the SSCC are developed and maintained by the Society of Automotive Engineers (SAE) Snowmobile Committee. Requirements for snowmobile lamps, reflective devices, and associated equipment for signaling are in SAE J292 (reaffirmed in May 1995), *Snowmobile and Snowmobile Cutter Lamps, Reflective Devices and Associated Equipment*, and in nine other complementary SAE standards. SAE J1038, *Recommendations for Children's Snowmobiles*, also includes lighting system requirements.

SAE J292 states that snowmobiles must have at least one white or amber headlamp, one red tail lamp, three red reflectors to be used on the rear and side of the snowmobile only, and two amber reflectors. Side marker lamps (two red and two amber) are optional. The standard specifies the location of the lamps and reflectors, and prohibits installing other lamps or reflectors that impair the effectiveness of the required equipment. This critical design criterion must be considered when introducing an auxiliary hazard lighting system. As an industry practice, the headlights and taillights automatically illuminate when the engine is running. SAE J292 also states that all required lamps must burn steadily when energized. For many snowmobile models, it may be possible to simplify changes by using these existing lamps in a flashing mode, but this could conflict with SAE J292 and may not meet the petitioner's requirements of an amber light on the front of the snowmobile.

The snowmobile uses a generator, referred to as a magneto, to provide electricity to the lights and spark to the engine. The engine is typically started using a pull cord like that found on most lawn mowers, but some snowmobile models have an electric starter or offer it as an accessory and would thus have a battery to power the starter. This battery is generally a lead acid battery, which recharges while the engine is running. A review of one manufacturer's 2003 models showed that out of 34 models, 12 offer electric-start as a standard feature and 16 offer it as an accessory. Even electric-start models rely on the magneto to power the lights, so the engine must be **running to illuminate the lights**. Nevertheless, a battery is the most feasible choice for a separate electrical source to power an auxiliary hazard lighting system, and batteries are available that would meet the proposed requirements.

ESEE staff believes that even though some baseline snowmobile models have a battery, all snowmobiles would need some redesign to accommodate the components necessary for an auxiliary hazard lighting system. Manufacturing and design considerations include routing wires between the power source, switch, and lights; incorporating a weather-resistant on/off switch; making the battery accessible for replacement or maintenance; and integrating the auxiliary hazard lights so they do not interfere with the existing lights.

#### F. COST-BENEFIT ANALYSIS (Tab B)

The petitioner's battery-operated Snow Glow® hazard light system is available to consumers at a price of about \$100. If future costs for lithium battery replacements are considered, EC staff estimates the average present value of increased consumer outlays could total about \$125.

Using the Injury Cost Model, EC staff estimates that snowmobiles were associated with an average of 35,760 medically treated injuries each year from 1997 through 2001.<sup>8</sup> EC also estimates average injury costs to be \$27,830. The NEISS narratives did not provide sufficient detail to quantify collisions with stopped snowmobiles. However, in the EPHA review of 460 reported non-fatal incidents in the IPII database from 1992 through 2001, only three (less than 1%) to nine (about 2%) incidents involved collisions, some of which may have followed the hazard pattern of interest. If one assumes that 1% to 2% of medically attended injuries—that is, about 350 to 700 injuries per year—involve collisions, some of which may have followed scenarios for which auxiliary hazard lighting might be effective, this would correspond to total injury costs of about \$10 million to \$20 million per year. Based on an estimated average of 1.5 million snowmobiles in use from 1997 through 2001<sup>9</sup> and an expected product life of nine years, the discounted present value of these injuries over the life of a snowmobile may be in the range of about \$51 to \$101.

In a review of 1,420 reported deaths associated with snowmobiles from 1992 through 2001, EPHA staff identified about 10% (or about 14 deaths annually) that involved collisions with other snowmobiles, collisions with pedestrians, or other unspecified collisions (see Section II.C, *CPSC Incident Data*). These are the only ones that might include cases potentially addressable by auxiliary hazard lighting. Using a statistical value of \$5 million per death, and assuming about 1.2 million snowmobiles were in use from 1992 through 2001, EC staff estimates annual fatality costs of \$70 million associated with this hazard pattern. This is nearly \$60 per snowmobile annually, and corresponds to a discounted present value of about \$446 over the life of a snowmobile.

Based on the above information, total hazard costs associated with fatal and non-fatal snowmobile collisions with other snowmobiles, pedestrians, and unknown vehicles are estimated to range from \$497 to \$547 per snowmobile in use. Assuming the present value of the discounted costs to consumers of mandatory auxiliary hazard lighting is about \$125 per snowmobile, requirements for auxiliary hazard lighting would have to reduce hazard costs by about 23% to 25% for the benefits to be about equal to the costs. If one assumes that mandating auxiliary hazard lighting on snowmobiles would reduce injuries and deaths by the same proportions, this suggests that mandatory auxiliary hazard lighting would have to prevent about 3 to 3.5 deaths and 90 to 160 injuries each year.

As described earlier, the EPHA review of reported deaths associated with snowmobiles during a ten-year period found only four deaths—or less than one death every two years, on average—that would likely have been addressed by auxiliary hazard lighting. Another 11 deaths over that same ten-year period also involved collisions with a snowmobile, pedestrian, or unknown vehicle, and may have been addressable by auxiliary hazard lighting. However, relevant details about these incidents, such as the lighting conditions at the time, are lacking. Even if one assumes that these additional deaths would have been addressed by auxiliary hazard lighting, this would amount to 1.5 deaths annually.

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<sup>8</sup> This includes EPHA staff's estimated 13,640 annual emergency-room-treated injuries (see Tab C).

<sup>9</sup> Assuming the number of snowmobiles in use from 1995 (1.2 million) to 2001 (1.65 million) increased by about 75,000 each year.

The number of addressable injuries is less clear given the lack of detail in the NEISS injury reports. However, based on the EPHA review of reported non-fatal incidents in the IPII database, there is no indication that a significant number of snowmobile injuries would have been addressed by auxiliary hazard lighting. Moreover, the ESHF review of the data casts some doubt that any of the reported injuries or deaths would have been preventable. Based on these considerations, the staff believes the benefits of mandating auxiliary hazard lighting are unlikely to equal the costs.

### III. PUBLIC COMMENTS AND STAFF RESPONSES

On April 30, 2002, a notice was published in the Federal Register (67 FR 21222) in which the Commission solicited public comments on the petition. As of the closing date, July 1, 2002, the Commission received four comments. One, from the petitioner, supported the petition, and the remaining three opposed it. What follows are the staff's responses to the substantive issues raised in these comments that are not already addressed in the *Technical Staff Assessment* (Section II). The staff did not respond to issues raised by the petitioner in their comments (CH 02-1-1) because these are the same issues raised in the information they provided with their petition. As such, these issues are discussed in the *Technical Staff Assessment*. A list of the public comments can be found in Tab F. Complete copies are available through the Office of the Secretary.

#### *Issue: Use of System Could Increase Risk*

One commenter (CH 02-1-2) claims that an auxiliary hazard lighting system may increase the risk of collision if someone felt they could leave a snowmobile in the path of snowmobile traffic because the system was in use.

As discussed in the ESHF memorandum (Tab D), "risk compensation" theory essentially argues that people will compensate for a perceived increase in safety with more risky behavior. This is a controversial theory, but even if true it generally applies to behaviors that affect the person's own level of risk, not to behaviors that affect another's level of risk. The commenter's claim presumes that consumers will expose other snowmobile operators to an increased risk of collision due to the presence of auxiliary hazard lighting. No research is available to support this, and ESHF staff believes that consumers' behaviors are likely to be consistent with their behaviors in similar situations involving automobile breakdowns. Drivers typically pull disabled automobiles off the road unless they are unable to do so. Therefore, ESHF staff believes that most snowmobile operators are unlikely to leave snowmobiles in the path of traffic unless they cannot avoid it.

#### *Issue: Visibility Is Not the Problem*

One commenter (CH 02-1-2) claims that the proposed system would be of limited usefulness because snowmobiles collide with Groomers, which have floodlights and rotating warning beacons. Similarly, the commenter suggests that snowmobile operators are usually required to avoid many more obstacles that are not illuminated.

Moving snowmobiles, whose lights would be illuminated, do occasionally collide. This suggests that increasing snowmobile lighting might not always reduce injuries and that poor visibility may not be the only cause of snowmobile collisions. This does not necessarily mean that auxiliary



hazard lighting would be ineffective in cases where a snowmobile was stopped and not running. CPSC data do suggest, however, that collisions with other objects are more common than collisions with stopped snowmobiles. Therefore, the proposed auxiliary hazard lighting system is likely to address a relatively small percentage of snowmobile collisions.

*Issue: Practicality/Limitations of System Requirements*

One commenter (CH 02-1-2) believes that requiring a power source for the auxiliary hazard lighting system to operate for 40 hours at 0 degrees Fahrenheit is excessive. Another commenter (CH 02-1-4) states that evaluations of the Snow Glow® system performed by snowmobile manufacturers discovered several limitations.

As stated in the *Electrical Engineering Assessment* (Section II.E), CPSC staff did not evaluate whether the specific system requirements would be considered reasonable because the staff believes it is premature to perform such an evaluation before it has been established that mandatory auxiliary hazard lighting is reasonably necessary. One may presume that these requirements are based on the characteristics of the Snow Glow® system, but specific limitations associated with the Snow Glow® system would not necessarily apply to all auxiliary hazard lighting systems that might be developed. Without commenting on the validity of the alleged limitations, many of them, such as the lack of 360-degree visibility, are ones that could be addressed through performance requirements.

*Issue: Alternate Solutions to Hazard*

Two commenters (CH 02-1-2 and -3) suggest that a solution to incidents falling within the hazard pattern of interest is to make sure a disabled snowmobile is immediately removed from the trail.

As discussed in the ESHF memorandum (Tab D), a snowmobile operator may not always be capable of immediately removing a disabled snowmobile from the trail. Narrow trails and road shoulders may make it difficult to pull completely off a trail. Also, the operator may try restarting the snowmobile before resorting to this action. Snowmobiles are sometimes driven off trails and on fields or frozen lakes, and in these cases one could consider the entire riding surface to be in the path of snowmobile traffic. Under all of these circumstances, the snowmobile operator would be at risk of being struck.

*Issue: Alternate Causes of Incidents*

Two commenters (CH 02-1-2 and -4) claim that snowmobile injuries and deaths are due to operator behavior, such as excessive speeding and alcohol use, not poor visibility.

Excessive speed and alcohol may affect a snowmobile operator's ability to perform a proper avoidance maneuver in time to avoid a collision, but this does not suggest that visibility is irrelevant. In reports of excessive speed, it is hard to argue that an auxiliary hazard lighting system would be irrelevant without knowing the precise speed of the moving snowmobile, the lighting conditions, and other conditions surrounding the incident. The prevalence of extreme speeds may, in fact, suggest an even greater need for auxiliary hazard lighting because visibility would be required from a greater distance for the moving-snowmobile operator to respond in

time. In some cases, alcohol is said to have been “involved” yet blood alcohol levels were not above the legal limit and may not have had a significant influence on the outcome. It is also possible for the struck individual to have been the intoxicated one, in which case the intoxication would be of questionable relevance.

*Issue: Level of Risk Presented by Hazard*

One commenter (CH 02-1-4) states that Wisconsin and Minnesota statistics from the Department of Natural Resources support that there is little safety risk and few injuries and fatalities that result from collisions with a stopped snowmobile due to limited visibility, contrary to the allegations of the petitioner.

In its memorandum (Tab C), EPHA staff states that none of the 26 deaths cited in the Wisconsin report and only two of the 28 deaths cited in the Minnesota report are in the hazard pattern of interest for the petition. This is generally consistent with the commenter’s claim.

*Issue: Increased Conspicuity versus Increased Change of Visual Angle*

One commenter (CH 02-1-4) suggests that increasing the rate of change of the visual angle,<sup>10</sup> also known as the rate of visual expansion, is more important in making judgments about approaching vehicles than increasing conspicuity through a point light source, as the proposed lighting system would do.

As discussed in the ESHF memorandum (Tab D), studies into accident reports involving nighttime rear-end collisions of cars into trucks suggest that increasing conspicuity may not reduce the incidence of collisions, and that increasing the rate of visual expansion may be more effective. However, this may only be true in terms of increases in conspicuity beyond that which is already visible to the viewer. The scenario described in the petition involves stalled or otherwise disabled snowmobiles that lack any lighting, and making an object conspicuous in the first place is an important requirement if one is to avoid colliding with it. The commenter’s statement also ignores the principle feature of the auxiliary hazard lighting proposed by the petitioner: the use of flashing lights. This feature is consistent with the hazard lights on automobiles and, as pointed out by ESHF staff, the meaning of flashing lights is likely to generalize to snowmobile operators. Such a system may not necessarily provide all the information the snowmobile operator would need to determine the distance to a stopped snowmobile or the time to collision, but it could alert the operator to the presence of a stopped snowmobile. This could provide the operator with an opportunity to slow and decide on the next best response.

#### **IV. ADDITIONAL INFORMATION PROVIDED BY PETITIONER**

In correspondence dated October 10, 2002, the petitioner sent CPSC staff additional information for review, and requested a meeting among members of the Commission, representatives for snowmobile manufacturers, and representatives from Snow Glow®, Inc. so the petitioner could discuss and demonstrate the Snow Glow® system. Although the petitioner provided this

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<sup>10</sup> The visual angle subtended by the visible portion of the vehicle or other item of interest being observed. An object far away from an observer takes up a smaller visual angle than a closer but otherwise identical object.

information after the closing date specified in the Federal Register notice soliciting public comments on the petition, CPSC staff did review it. The cover letter that accompanied this additional information can be found in Tab G; complete copies of this information are available through the Office of the Secretary. The information consisted primarily of comments opposing ISMA's comments on the petition (CH 02-1-4) and new survey responses to supplement those already received by CPSC staff. Much of the emphasis in this correspondence is on the failure of ISMA to prove that auxiliary hazard lighting is unnecessary and "not an effective way to prevent accidents or assist snowmobile operators." The specific issues raised by the petitioner in this correspondence have already been addressed in the *Technical Staff Assessment* (Section II) and *Public Comments and Staff Responses* (Section III), and will not be repeated here.

Regarding the petitioner's proposed meeting to demonstrate its hazard lighting system, CPSC staff agreed to an open meeting between the staff and the petitioner at CPSC Headquarters, one that would appear on the Public Calendar and could be attended by snowmobile manufacturers. In December 2002, CPSC staff received a letter from Congressman James Oberstar (MN) describing correspondence he received from the petitioners in which they asked that he support holding the aforementioned meeting on snowmobile trails in Minnesota. The staff responded to Congressman Oberstar through written correspondence that such a meeting is unlikely to provide additional information on which to base a recommendation to the Commission. The staff did, however, state that a meeting at CPSC Headquarters would be welcome.

The petitioner was unable to meet with CPSC staff. However, in correspondence dated February 26, 2003, the petitioner sent CPSC staff additional supporting documents and a video for review. The documents consisted primarily of additional survey responses. The petitioner created the video to show that a snowmobile equipped with an auxiliary hazard lighting system is more visible and recognizable than one without a system. The staff agrees that active lighting, like that used in the petitioner's proposed lighting system, is likely to be noticed more readily than passive, reflected lighting. However, this alone does not demonstrate that mandating auxiliary hazard lighting would translate into a reduction in injuries.

## **V. COMMISSION OPTIONS**

Options for Commission action to address the petition include:

### **1. Grant The Petition**

If, based on the information contained in this briefing package, the Commission concludes that snowmobiles without auxiliary hazard lighting may present an unreasonable risk of injury or death and that a rule may be reasonably necessary to eliminate or adequately reduce that risk, the Commission may grant the petition and direct the staff to develop an advance notice of proposed rulemaking (ANPR) under the authority of the Consumer Product Safety Act (CSPA).

### **2. Deny The Petition**

If the Commission concludes that the available information does not support a finding that snowmobiles without auxiliary hazard lighting may present an unreasonable risk of injury or death, the Commission may deny the petition.

### 3. Defer Decision On The Petition

If the Commission determines that there is insufficient information to make a decision on the petition, but that the staff could obtain such information, the Commission could defer its decision and direct the staff to obtain additional information.

## VI. STAFF RECOMMENDATION AND DISCUSSION

Based on the information contained in this briefing package, CPSC staff recommends that the Commission deny the petition. The staff believes there is insufficient evidence to establish that current snowmobiles, which lack mandatory auxiliary hazard lighting, pose an unreasonable risk of injury to consumers. Only a small percentage of snowmobile-related injuries and deaths involve collisions with a snowmobile, pedestrian, or unknown vehicle, and these are the only cases that might contain incidents that could be addressed by auxiliary hazard lighting. Although the petitioner's proposed lighting could, in principle, reduce the likelihood of a collision by increasing the visibility of a stalled or otherwise disabled snowmobile, this is only likely to be the case if the operator of the moving snowmobile has an unobstructed view of the snowmobile.

The incidents falling into the hazard pattern of interest often lack key details, such as the characteristics and conditions of the terrain, the speed of the moving snowmobile, and whether the struck snowmobile was stopped and not running when the incident happened. These and other circumstances surrounding the incidents could make the presence of auxiliary hazard lighting irrelevant or prevent any increase in visibility from translating into a reduction in injuries. This suggests that auxiliary hazard lighting is likely to prevent only a minor portion of the aforementioned incidents.

The staff believes that the need for a mandatory rule for auxiliary hazard lighting systems on snowmobiles is unsupported by the available injury and incident data. Additionally, the staff estimates that the potential benefits of auxiliary hazard lighting, in terms of reduced hazard costs, are unlikely to equal or exceed the costs of mandating such a system.

## VII. REFERENCE

Barlow, S.P. (January 1996). "Trails to Tragedy." *Minnesota Sportsman*. 33-35.

**TAB A**  
**Petition CP 02-2**

# SNOW GLOW® INC.

Manufacturers of Specialized Lighting Systems

312 2nd Ave North, Virginia, MN 55792 \* 218-749-GLOW (4569) \* fax 218-749-6909  
snowglow@rangenet.com http://www.snowglow.com

CP 02-2

February 8, 2002

Office of the Secretary  
Consumer Products Safety Commission  
Washington, DC 20207

CP02-2

CPSA 6 (b)(1) Cleared

No Mfrs/PrvtLbrs or

Products Identified

Excepted by

Firms Notified,

Comments Processed

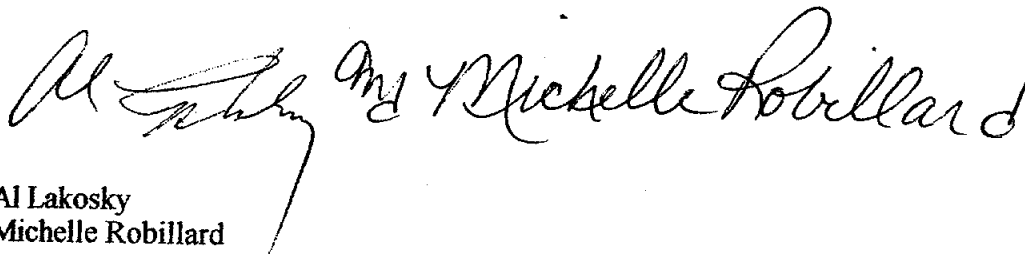
FEB 13 P 3:27

Enclosed are five (5) copies of materials with which we are requesting the Commission's review and quickly proceed with all necessary actions to rule-make on the need for Hazard Lighting on all future snowmobiles.

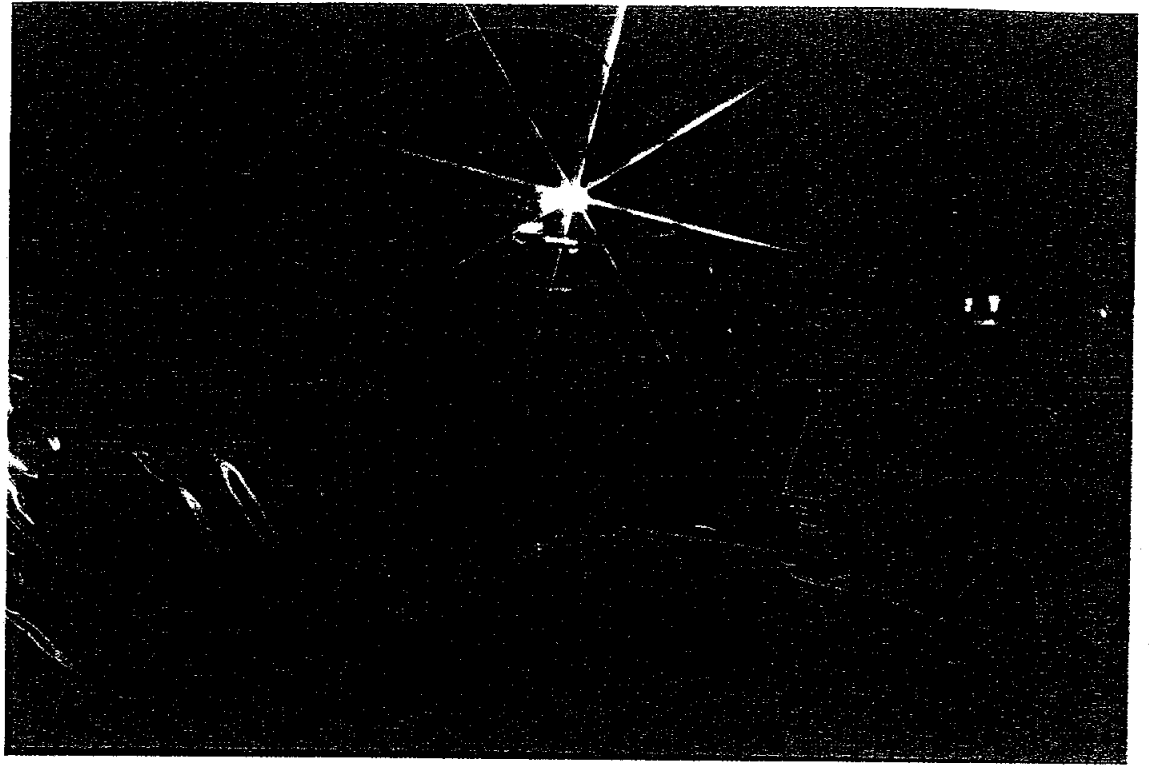
With the assistance of Congressman James Oberstar and Lowell F. Martin, Esq. Of the U.S. Consumer Product Safety Commission Office of the General Counsel, we submit these documents.

Thank you for your help.

Sincerely,

  
Al Lakosky  
Michelle Robillard

**Snow Glows™ Make Safety A Beautiful Thing \* Safety & Convenience, at a Flick of a Switch!**



**HAZARD LIGHTING SYSTEM FOR SNOWMOBILES**

**To the Consumer Products Safety Commission**

**Office of the Secretary  
Washington, DC 20207**

**Our request to Petition the Commission to rule-make on the  
needed addition of a Hazard Light System on all future Snowmobiles.**

**Enclosed are five copies of materials which establish this claim.**

**Presented and requested by:**

**Allen J. Lakosky and Michelle Robillard  
Snow Glow® Inc  
312 2nd Ave North  
Virginia, MN 55792  
218-749-GLOW (4569)  
218-749-6909 FAX**



# SNOW GLOW® INC.

## Manufacturers of Specialized Lighting Systems

312 2nd Ave North, Virginia, MN 55792 \* 218-749-GLOW (4569) \* fax 218-749-6909  
snowglow@rangenet.com <http://www.snowglow.com>

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January 30, 2002

Office of the Secretary  
Consumer Products Safety Commission  
Washington, DC 20207

Dear Commission Staff:

I, Allen J. Lakosky and Michelle Robillard, representatives of Snow Glow Inc, 312 2nd Avenue North, Virginia, MN 55792 (218-749-4569) wish to address serious concerns due to a lighting deficiency in all manufactured Snowmobiles and petition the Commission to rule-make on the needed addition of a Hazard Lighting System on all future Snowmobiles.

The facts we provide which establish this claim include our personal experience; other snowmobiler's testimonials and experiences with night riding; reference to accident, injury and fatality reports of the Consumer Products Safety Commission; and other educational information researched and obtained from the snowmobile manufacturers, industry related agencies and organizations, law enforcement, insurance industry and more.

The history and development of this product/concept began in 1997 when an employee of the Arctic Cat Corporation mentioned to Al Lakosky, an Accessory Lighting Vendor, that he, at Arctic Cat, had been made aware of an increasing concern of snowmobile customers which is the fact that **"a snowmobile is completely dark when the engine is not running, while stopped or parked, and the risks involved with that"**. He suggested that Al come up with a solution. Six weeks later, Mr. Lakosky visited the Arctic Cat plant with the first prototype of a fully self contained Hazard Lighting System for snowmobiles.

The sport of snowmobiling has become increasingly popular over the past several decades. It is believed that this increase in popularity can be attributed, at least in part, to advances made in snowmobile design technology. As a result of this increase in popularity, snowmobile traffic on lakes and trails in New England States, Mountain States and the Upper Midwest has increased. It is expected that the popularity of snowmobiling will continue to grow, and the congestion on snowmobile trails will increase.

It is known that the growth in snowmobile traffic has resulted in an increased number of snowmobile related accidents. Many of the accidents occur at night. At this time, snowmobiles provide lighting in the form of headlights, taillights and reflectors. These lights have two purposes. They allow the snowmobile operator to see the terrain, and they increase the visibility of the snowmobile to others. The headlights and taillights of snowmobiles presently on the market do not remain on when the snowmobiles are turned off. As a result, snowmobiles which are turned off may pose a hazard at night if they are not sufficiently visible to other snowmobile operators. Snowmobile operators have many reasons to turn off their engines, which in turn results in turning off the headlights and taillights. While snowmobiles have become increasingly reliable, mechanical failure often occurs and requires turning off the engine. In addition, snowmobile operators often stop their vehicles for various other reasons including resting, checking fluid levels, changing gloves, reading a map, and the like. Generally, snowmobile operators do not want to leave their snowmobiles running for a prolonged period of time. The reason is that the cooling systems of most snowmobiles are designed to have snow constantly thrown onto their heat exchangers by means of forward propulsion. Prolonged idling can cause the engine to overheat and ultimately become damaged.

Some snowmobile operators carry valuable lighting accessories such as a strobe, flare and/or flashlight with them at night. They know when they leave their snowmobile on the side of a trail or on a lake without any illumination, it poses a hazard to other snowmobile operators in the vicinity. If they leave the flashlight with the snowmobile to illuminate it, the flashlight tends to project the light in one direction and may not provide sufficient warning for other snowmobile operators in the vicinity. Further more, the cold temperature has an adverse effect on the batteries causing decrease in voltage and a dimming of the light. The same concerns apply to the strobe type accessories. A flare will blaze for a maximum of 15 to 30 minutes before burning out. While these hand held accessories should be carried by all snowmobile operators, they are often lost, stolen or forgotten when out on the trail.

Snowmobiles have become much faster over the years. As a result, snowmobiles often travel at high speeds, even at night. It is believed that many snowmobile operators travel at speeds which are unsafe considering the illumination provided by their headlight. Even if the snowmobile operators are not traveling at high speeds, the snow conditions may be too slippery or icy to permit rapid braking once an object comes within view of the snowmobile operators' headlight. Many groomed trails have rolling terrain, sharp corners and turns which decrease visibility of potential hazards in the trails such as stopped snowmobiles. When the hazard is another snowmobile which is not illuminated, severe injury can result if the snowmobiles collide, or if an on-coming operator has cause to swerve to avoid the collision. With the increase in snowmobile deaths in recent years, a need exists for providing better illumination for snowmobiles which have been turned off.

At this time, due to the lack of agreement, cooperation and responsibility of the Snowmobile Manufacturers, the Snowmobile Safety Certification Committee-SSCC, and the Society of Automotive Engineers Snowmobile Committee-SAE, regarding the need and added benefit of hazard lighting, **we are asking the Commission to create and enforce a rule requiring all new production snowmobiles to have auxiliary hazard lighting systems which must:**

- have an energy power source separate from the main power source of the snowmobile;
- operate for a minimum of 40 hours at 0 degrees Fahrenheit and function in temperatures of minus 30 degrees Fahrenheit or colder;
- have an on-off switch that is separate from the main electrical system;
- must emit yellow light from the front of the snowmobile and red from the rear;
- have a flashing display and be visible in unobstructed darkness from at least one-half mile distance, from the front and rear of the snowmobile.

These suggestions for the requirement of hazard lighting would allow the common snowmobiler to relate to a parked and/or disabled snowmobile in the same way that drivers of automobiles have heightened awareness and operating skill in various scenarios. When the driver of a traveling motor vehicle observes a hazard flasher as utilized by a parked automobile, stopped school bus, construction work area, etc. that warning is a call for caution that will benefit all. While being conspicuous is no guarantee that you will be seen, it may improve your odds.

This request to petition the Commission presents a growing concern for the safety of snowmobile operators. At the same time, we hope it expresses our knowledge, experience and love for this family recreation and great sport that snowmobiling is. Snowmobiling as an industry is an essential investment for many states economy and quality of life. The jobs, recreation and increasing tourism it creates warrant the added safety a built-in hazard light system will bring.

Attached you will find literature, letters, photos, news articles, statistics and individuals personal and professional opinions and experiences acquired over time. We have attempted to remain focused on the need for hazard lighting for snowmobiles and not to seek product endorsement in this effort. The fact is we have developed, built and sold lighting products to snowmobile manufacturers since 1993. If useful we have letters, new idea submission agreements, purchase orders, invoices and catalogs from the

snowmobile manufacturers which involve all our safety lighting products as well as those specific to the Hazard Light System. The Polaris Corporation marketed the Hazard Light in their 2001 accessory catalog but has since discontinued it. You will no longer find any of our lighting products in any of the manufacturers catalogs.

It was with the suggestion of Congressman James Oberstar that we contacted the Office of the Secretary to verify that the Commission retains jurisdiction over snowmobiles as a "consumer product" before proceeding. We made that contact in December 2001, and as a result, were provided the necessary information on the Procedure and Requirements to Petition for Rule-making which we have attempted to fulfill here. Based on the direction of that office and findings of the Consumer Products Safety Commission relating to the CPSC Safety Act (see letters attached: U.S. House of Representatives James Oberstar November 5, 2001 and U.S. Consumer Products Safety Commission July, 15, 1975), we hope the Commission will quickly acknowledge the lighting deficiency of "the snowmobile" which presents an unreasonable risk of injury to a snowmobile operator in dark conditions. With your assistance and rule, that risk can be reduced and possibly eliminated.

Please let us know if we can be of any additional assistance. Thank you for your time and consideration.

Sincerely,

Handwritten signatures of Al Lakosky and Michelle Robillard. The signature for Al Lakosky is on the left, and the signature for Michelle Robillard is on the right, with a small 'and' written between them.

Al Lakosky and Michelle Robillard

## **PHOTOGRAPHS & TEST RESULTS**

### ***SNOW GLOW HAZARD LIGHTING SYSTEM***

**Date:** January 18, 2002

**Time:** Between 5:00 p.m. to 7:00 p.m.

**Temperature:** - 6 degrees Fahrenheit

**Wind:** Out of the North, gusting 15-25 mph with light dusting and blowing snow from the lake

**Location:** South Shores of Lake Vermilion, Minnesota

**Conflicting / Contaminating Light Sources:** one quarter moon, clear and star lit skies

**The photo facts provided here prove that when parked or shut down for any reason, stock snowmobiles exhibit poor reflective qualities. They cannot be seen in dark and/or blowing snow conditions until 1/10 of a mile - when looking for them!**

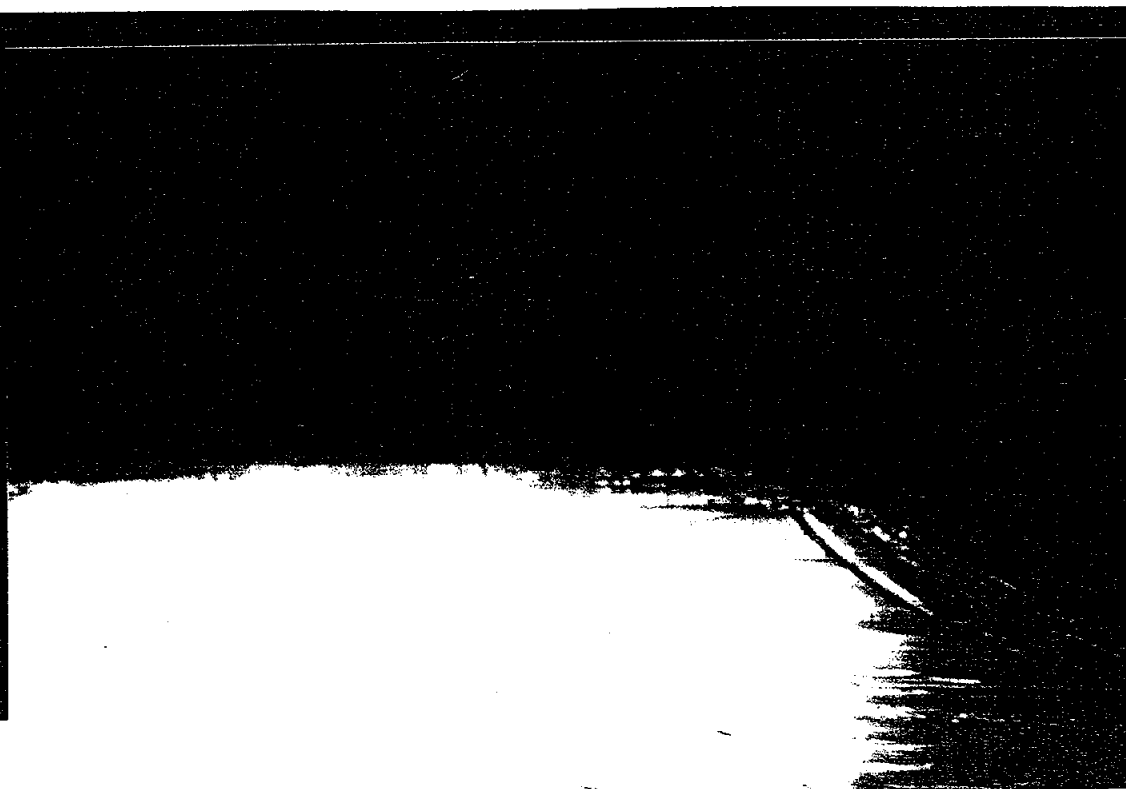
**Fact - Snow Glow Hazard Light System projects light for more than 10 times the distance a stock rear reflector can and where there is No visibility available from the front of a stock snowmobile, Snow Glow's flashing light can be seen over a mile away.**

**Point in Fact - The safety of all snowmobile operators is greatly enhanced when protected with a flashing/pulsing light emitting from a stopped snowmobile versus a reflector.**



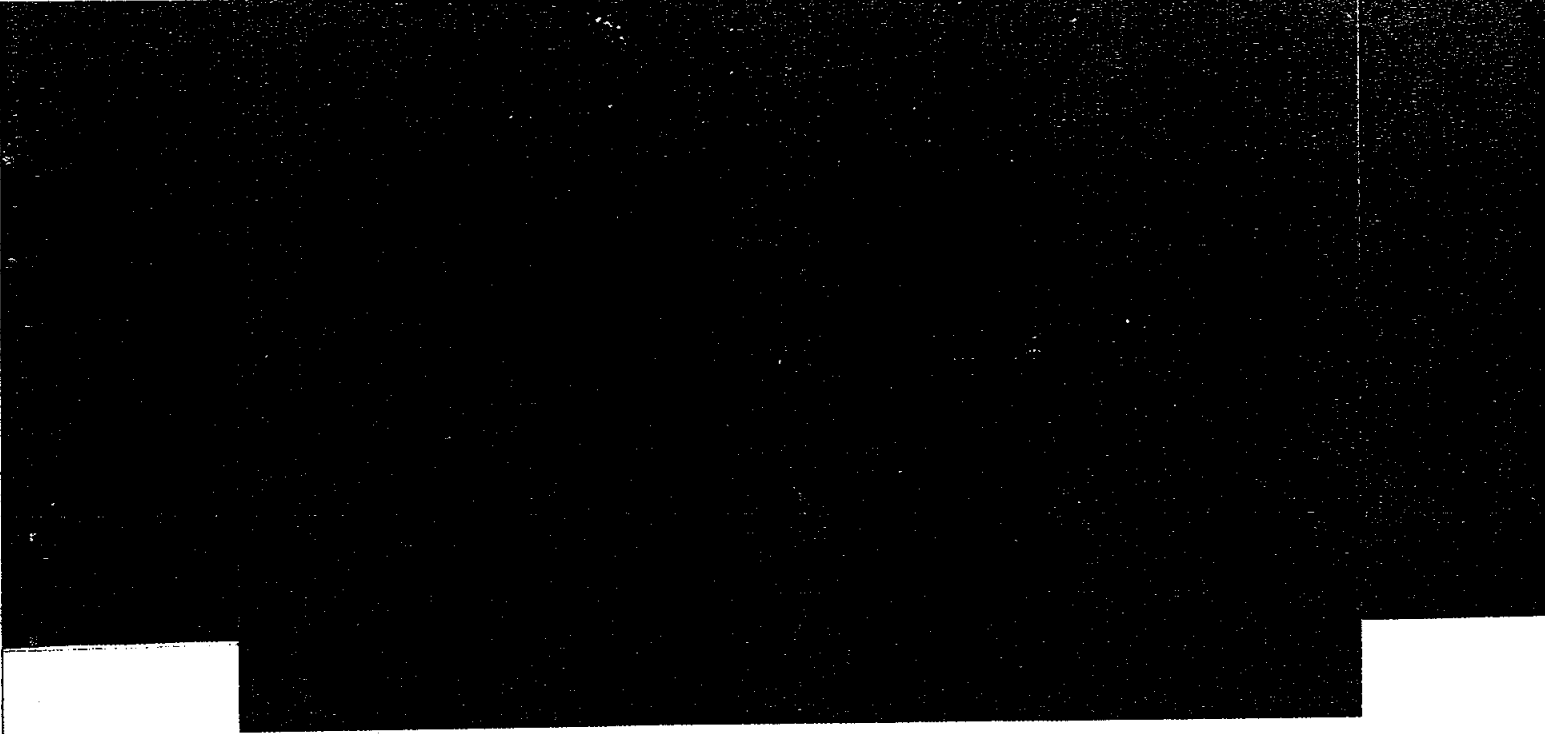
**Picture No. 1** – 1998 Snowmobile facing toward camera with support snowmobile casting headlight onto parked sled. Distance approximately ½ mile (2640 ft).

**Result** – Parked snowmobile unable to be seen!

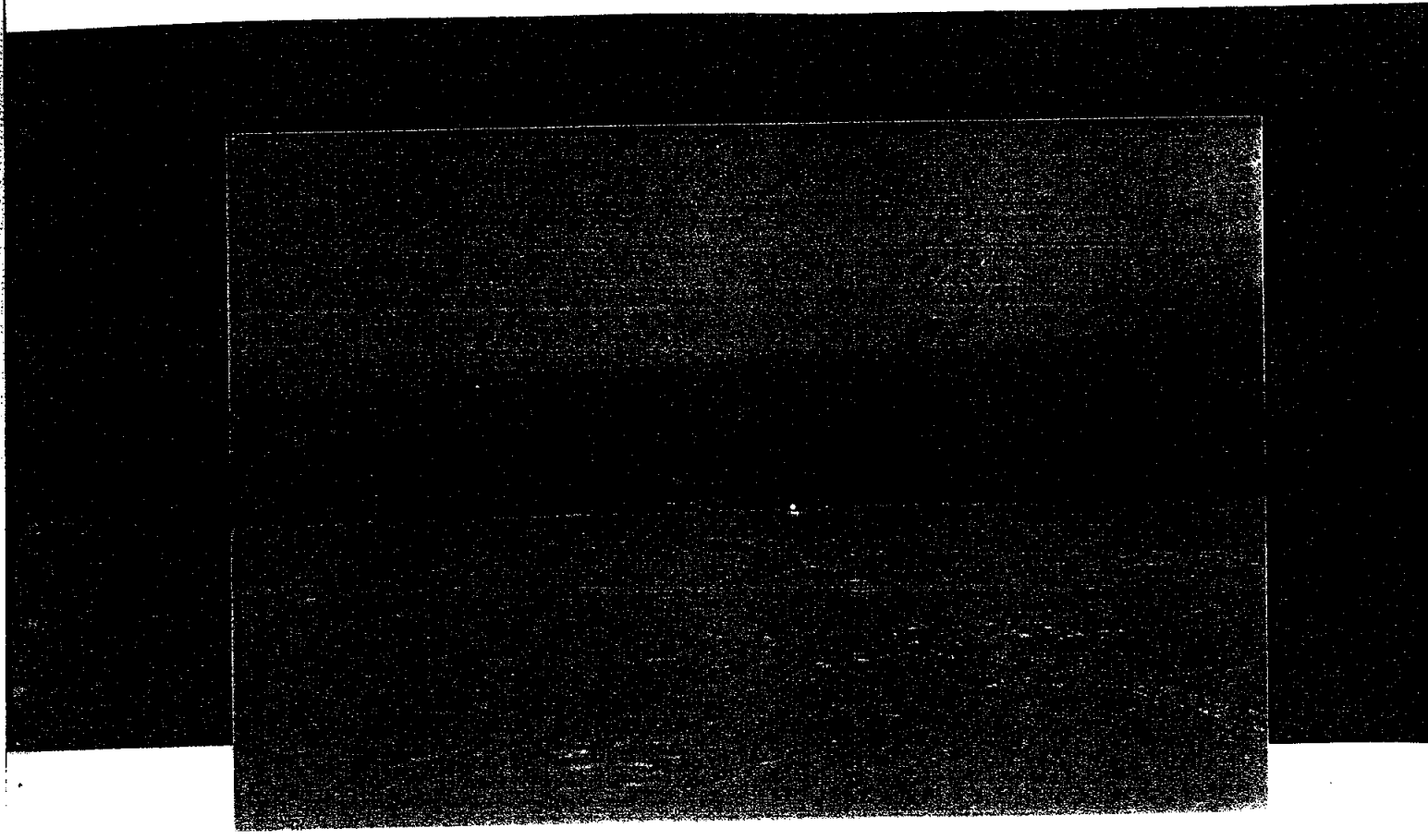


**Picture No. 2** – 1998 Snowmobile facing forward, moving camera in to approximately 1/10 mile. Support snowmobile headlight shining directly onto parked sled.

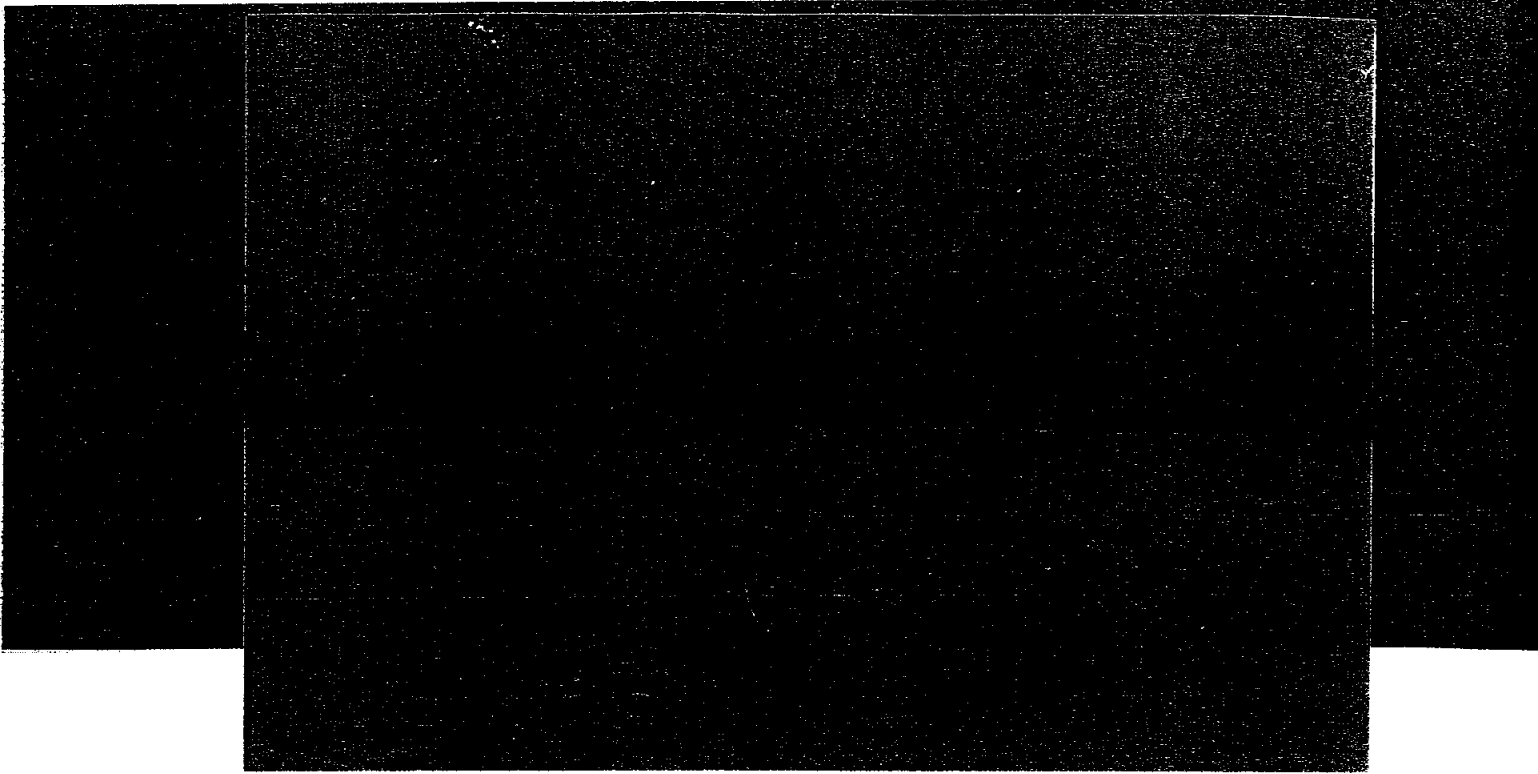
**Result** – Again, parked snowmobile unable to be seen. Slight glare off headlight lens can be seen in center of photo. A dangerous situation!



**Picture No. 3** - This picture addresses the fact that Snow Glow Hazard Lighting System can be seen 360 degrees. With proper placement of the LED's good sideways visibility is achieved. In this example, the stock reflectors worked well with the hazard light system.



**Picture No. 4** - 1998 Snowmobile equipped with Snow Glow Hazard Flasher easily visible for 1 mile. (5280 ft) Sled facing forward to show yellow lighting installed through front windshield.



**Picture No. 5** – 1998 Snowmobile equipped with Snow Glow Hazard Flasher easily visible for 1 mile (5280 ft) Sled facing from the rear to show red lighting installed through tail lens.



**Picture No.6** – Approaching support sled casting “high beam” from headlight to show distance where picking up any reflective light. Distance approximately 1/10 mile (528 ft) when reflectors just came into view, again when looking for them. No information or warning available to establish a parked snowmobile.



**U.S. House of Representatives**  
**Committee on Transportation and Infrastructure**  
**Washington, DC 20515**

**Don Young**  
Chairman

**James L. Oberstar**  
Ranking Democratic Member

November 5, 2001

Lloyd A. Jones, Chief of Staff  
Michael Strachn, Deputy Chief of Staff

David Heymsfeld, Democratic Chief of Staff

Mr. Al Lakosky  
Snow Glow, Inc.  
312 2<sup>nd</sup> Avenue North  
Virginia, Minnesota 55792

Dear Mr. Lakosky:

Thank you for your September 25<sup>th</sup> letter seeking my advice on development of a mandatory equipment safety standard for hazard lighting systems on snowmobiles. You are to be commended for your work in developing and promoting this safety device.

According to precedents, snowmobile safety falls under the jurisdiction of the Consumer Product Safety Commission. (See enclosed 1976 letter to the Honorable Teno Roncalio to that effect.) I suggest you contact the Office of the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207, to verify the Commission retains jurisdiction over the matter before proceeding further.

Procedures for the submission and disposition of petitions for the issuance of rules under the Consumer Product Safety Act (15 U.S.C. 2051 *et seq.*) or other statutes administered by the Consumer Product Safety Commission are found at 16 CFR (Code of Federal Regulations) Part 1051. A copy of the regulations is enclosed for your convenience.

Please keep me informed of your progress With every best wish.

Sincerely,

James L. Oberstar, M.C.  
Ranking Democratic Member

JLO:cw

800-638-2772  
CPSC HOTLINE



# 213

*per the mfr id removed  
No response, 6/6 cleared  
led. 11/1/74*



U.S. CONSUMER PRODUCT SAFETY COMMISSION

WASHINGTON, D.C. 20207

15 JUL 1975

CC: SAFETY

Honorable Teno Roncalio  
House of Representatives  
Washington, D.C. 20515

Dear Mr. Roncalio:

This is in response to your June 10, 1975 letter which enclosed a copy of a May 9, 1975 letter from SeTeton Park Ranch of Pinedale, Wyoming. This office is responding, rather than the Commission's Office of Congressional Relations, because the SeTeton letter raises an issue that requires a legal advisory opinion.

SeTeton, a dealer for snow machine products made by Moto-Ski Limited, provides information on poor performance by certain snow machines. Our understanding of the potential safety hazard involved is that malfunction of these machines can leave persons stranded in freezing weather and blizzard conditions with no means to reach shelter except walking.

This office believes that snow machines are "consumer products" and therefore within the jurisdiction of the Commission. If "an unreasonable risk of injury [is] associated with" snow machines or if a snow machine defect "creates a substantial risk of injury to the public" (see sections 7(a) and 15(a), respectively, of the Consumer Product Safety Act, copy enclosed), the Commission can undertake regulatory or enforcement action to eliminate or reduce the risk of injury.

In two previous advisory opinions, the Commission staff has considered the question of how closely a risk of injury must relate to a consumer product before the Commission can undertake regulatory action. A November 14, 1974 advisory opinion (copy enclosed) stated that the poor functioning of a fire extinguisher "may be closely related to the injury from fire which [the extinguisher is] supposed to prevent." The conclusion of that advisory opinion was that the Commission does have "jurisdiction to regulate the effectiveness of safety-related products such as fire extinguishers." In a February 12, 1975 advisory opinion (copy enclosed) this office made a similar finding

for malfunctioning fire alarm equipment and for traffic control devices which "can cause injuries by directing cars or pedestrians to enter an intersection into oncoming traffic."

This office believes that snow machines, when used in the severe weather conditions described in the Seteton letter, might present an unreasonable risk of injury or might create a substantial risk of injury to the public. Before the Commission takes any regulatory or enforcement action, its staff will make an investigation into the potential problem. Accordingly, we are referring your constituent's letter to the Commission's Office of Product Defect Identification for its consideration.

While the views expressed in this letter are based on the most current interpretation of the law by the Commission staff, they could subsequently be changed or superseded by the staff or by the Commission.

Sincerely,

  
Michael A. Brown  
General Counsel

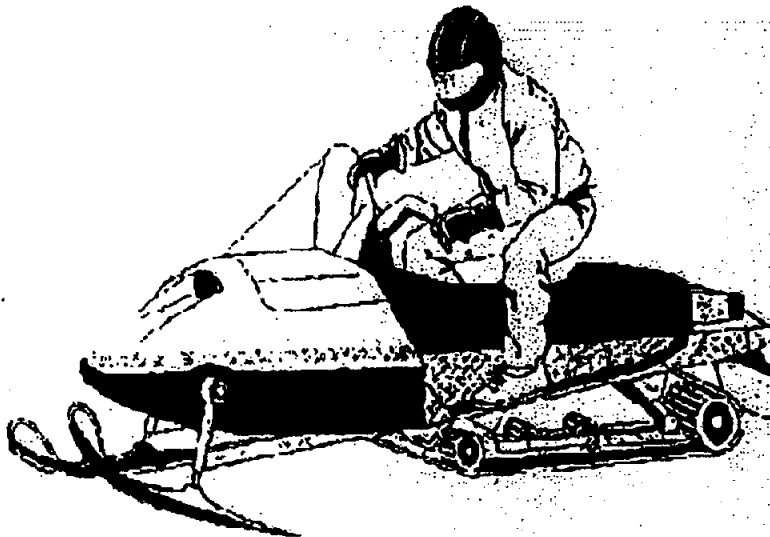
Enclosure

# Consumer Product Safety Commission

## Safety Commission Warns About Snowmobile Hazards

CPSC Document #541

The U.S. Consumer Product Safety Commission estimates that each year about 110 people die while riding snowmobiles. The Commission estimates that about 13,400 hospital emergency room-treated injuries occur each year with snowmobiles. Approximately two-fifths or 40 percent of the reported deaths resulted from colliding with trees, wires, bridges, and other vehicles. Some deaths occurred when the snowmobile rolled to the side in a ditch or stream and pinned the operator under the vehicle. Deaths also have occurred when the snowmobile entered water, mostly when it was operating on ice and fell through.



### CPSC recommends the following safe snowmobiling rules for recreational snowmobiling:

1. Never drive your snowmobile alone or on unfamiliar ground. Have someone ride along with you, so you can help each other in case of breakdown or accident.
2. Drive only on established and marked trails or in specified use areas.
3. Avoid waterways. Frozen lakes and rivers can be fatal. It is almost impossible to judge adequate ice coverage or depth.
4. Avoid driving in bad weather. Check warnings for snow, ice, and wind chill conditions before starting.
5. Watch the path ahead to avoid rocks, trees, fences (particularly barbed wire), ditches, and other obstacles.
6. Slow down at the top of a hill. A cliff, snowbank, or other unforeseen hazard could be on the other side.
7. Don't hurdle snowbanks. You have control only when your skis are on the ground.
8. Learn the snowmobile traffic laws and regulations for the area. Many states prohibit using snowmobiles on public roads. Some states have minimum age requirements for drivers.
9. Be sensible about stopping at roads or railroad tracks. Signal your turns to other drivers. Avoid tailgating. Control speed according to conditions.
10. Use extra caution if driving at night, because un-seen obstacles could be fatal. Do not drive faster than your headlights will allow you to see. Do not open new trails after dark.
11. Never drink while driving your snowmobile. Drinking and driving can prove fatal.
12. Be sure the snowmobile is properly maintained in good operating condition. Some cases report that the throttle sticks, leading to loss of control. Snowmobiles manufactured before 1983 may not have a "throttle interruption device" designed to shut off the snowmobile if

the event the throttle sticks.

009403

The U.S. Consumer Product Safety Commission protects the public from the unreasonable risk of injury or death from 15,000 types of consumer products under the agency's jurisdiction. To report a dangerous product or a product-related injury, you can go to [CPSC's forms page](#) and use the first on-line form on that page. Or, you can call CPSC's hotline at (800) 638-2772 or CPSC's teletypewriter at (800) 638-8270, or send the information to [info@cpsc.gov](mailto:info@cpsc.gov). Consumers can obtain this publication and additional publication information from the Publications section of CPSC's web site or by sending your publication request to [publications@cpsc.gov](mailto:publications@cpsc.gov). If you would like to receive CPSC's recall notices, subscribing to the email list will send all press releases to you the day they are issued.

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# Minnesota Senate

KEY: ~~stricken~~ = old language to be removed  
underscored = new language to be added

NOTE: If you cannot see any difference in the key above, you need to change the display of stricken and/or underscored language.

Amfoms and Status List versions

S.F No. 2144, as introduced: 80th Legislative Session (1997-1998) Posted on 1/22/98

- 1.1 A bill for an act  
 1.2 relating to recreational vehicles; requiring that new  
 1.3 snowmobiles be equipped with auxiliary light power and  
 1.4 switches; amending Minnesota Statutes 1996, section  
 1.5 84.821, by adding a subdivision.  
 1.6 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:  
 1.7 Section 1. Minnesota Statutes 1996, section 84.821, is  
 1.8 amended by adding a subdivision to read:  
 1.9 Subd. 3. (AUXILIARY LIGHT POWER; LIGHT SWITCH.) All  
 1.10 snowmobiles made after June 30, 1999, and sold in Minnesota,  
 1.11 shall be designed and made to provide an auxiliary electrical  
 1.12 system or other auxiliary power that allows the lights to remain  
 1.13 on when the snowmobile engine stops running. Each snowmobile  
 1.14 shall be equipped with a switch, separate from the main  
 1.15 electrical system, that disengages the auxiliary power and turns  
 1.16 the lights off.

# **SNOW GLOW® INC.**

**Manufacturers of Specialized Lighting Systems**

312 2nd Ave North, Virginia, MN 55792 \* 218-749-GLOW (4569) \* fax 218-749-6909  
snowglow@rangenet.com <http://www.snowglow.com>

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March 24, 1999

Maichele Borowicz  
Office of the Governor  
Room 130  
State Capitol  
St. Paul, MN 55155

Dear Maichele,

I am writing you as suggested by Rachel Wobschall via telephone conversation back in February, in hopes that you will forward this information to the Honorable Governor Jesse Ventura. My name is Al Lakosky and I own a small company named "Snow Glow, Inc." We design and build aftermarket lighting systems to enhance the safety and beauty of snowmobiles. My company has been in existence since 1993 here in northern Minnesota.

A few years ago, I addressed a very serious problem that is inherent with all snowmobile designs, that is the fact that they do not emit any lighting when they are turned off at night. (The enclosed copy of "Minnesota Sportsman" has an article depicting a typical nighttime snowmobile hazard/accident.) This is not uncommon as we have had more than a couple of deaths on our northern lakes in the past few years due to this lack of lighting and being a snowmobiler myself, I have witnessed many times, near accidents from snowmobile operators parked in the dark on trails at night.

I have designed and applied for patent on a system that addresses this night hazard problem. The brief enclosed video tape shows the system and how it works. I have sent a copy of this tape to the CEO's from the big four manufacturers; Arctic Cat, Polaris, Bombardier (Ski-Doo) and Yamaha. None of these companies have taken this product seriously. I have felt a strong mentality of "If we didn't think of it, it can't be any good" in attempting to deal with these companies.

After being shunned by these companies, I turned to my own legislators in my area for help. Mr. Tom Rukavina, Mr. Jerry Janezich and Mr. David Tomassoni made visits to my shop and once it was explained to them that this problem exists and I showed them how we have addressed it, they were anxious to draft a bill to make our system, or a like system mandatory on future snowmobiles (enclosed is a copy of the St. Paul Pioneer Press' article on the proposed legislation). Unfortunately, I trusted these "representatives of the people" to find that it seems the only reason why they took interest is to get their own names out on some new bill for their own opportunities for notoriety and career advancement. Meanwhile, I trusted them to a point of putting my already established working relationship with the Arctic Cat and Polaris companies in jeopardy, knowing that they would resent being forced to address this lighting problem.

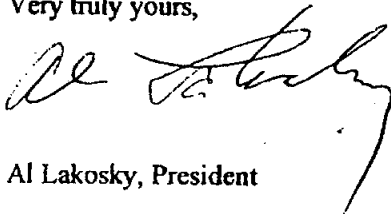
As our short lived, damage causing bill slowly moved forward, communications between myself, Mr. Rukavina and Mr. Janezich all but vanished. Our bill ended up in some farm and agricultural committee with a Friday deadline to come out of committee or the bill would die. The bill died and I called Jerry Janezich and asked him what happened. He replied to me "You didn't really want this bill to pass, did you? I thought we were just going to get the attention of the manufacturers so that they would make you an offer on the lighting system." This was one of the most ridiculous statements that I have ever heard. Big business does not operate this way and the whole bill became an embarrassment and created friction between Arctic Cat, Polaris and Snow Glow. All so that a handful of State Representatives could get a little publicity at my expense! As you can see in the Pioneer Press article, Arctic Cat and Polaris offered to meet with me but never did. I phoned Mr. Janezich and he told me that he would set up a meeting between Arctic Cat, Polaris and myself, however no such meeting was ever set up.

This whole experience has put a real sour taste in my mouth towards my "inept" State Legislators (at least the ones from this area). This is just one of many reasons why I welcomed the thought with open arms of the prospect of Mr. Ventura, with his "tell it like it is" attitude becoming this great state's Governor. I personally feel as Governor Ventura does, in as much as we don't need more government intervening into our lives. However, when it comes to the life and death of snowmobilers, the prospect of new jobs on the Iron Range, and perhaps even saving the sport of snowmobiling itself, I feel that help to get this product moving into the production of snowmobiles is an honorable cause. Please take a couple of minutes to review the enclosed video tape showing the new lighting system in actual snowmobiling conditions.

I would like to meet with Governor Ventura to explore this whole thing further. Governor Ventura is always welcome to come to me or I would gladly meet with him wherever and whenever would be convenient for his busy schedule.

I want to Thank you for taking the time to read this and look forward to hearing from anyone but my local Representatives.

Very truly yours,



Al Lakosky, President

enc: Video on "Safe-Stop™" Emergency Flasher System  
Article from St. Paul Pioneer Press Business section dated Feb. 3, 1998  
Brief article from Jan. '96 MN Sportsman Magazine on "Night Snowmobiling Dangers"



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# Trails To Tragedy

More than 17,000 snowmobilers were killed or injured in accidents last winter, and snowmobile safety experts agree that most of those tragedies could have been avoided. Their advice just might save a life, possibly even yours, this winter.

It's winter. The snow is piling up outside and the ice on the lakes is getting thick. You can stay warm, close the curtains and not think about it until it all goes away.

Or, if you're like an estimated 4 million people in this country, you see winter as a recreational opportunity to climb onto a snowmobile, journey to your favorite ice-fishing spot, tour a scenic trail, or take an exhilarating jaunt through snow you'd have to plod through on foot.

While the popularity of snowmobiles continues to grow, there are increased concerns about accident prevention. According to the federal Consumer Product Safety Commission, the most recent statistics available showed 17,423 injuries nationwide related to the use of snowmobiles in 1994.

In accidents that were reported, snowmobile experts found these recurring themes: unsafe speed, alcohol use, operators unfamiliar with the trail or terrain, operator inattention, operator inexperience, lack of supervision of children, and the special hazards of night riding.

"I would say that in 90 percent of accidents, it's the snowmobiler's fault," said Dick Hermance, head of Collision Research in Milson, N.Y. 914-457-9042.

Many snowmobile accidents occur when excessive speed is coupled with the operator's unfamiliarity with the terrain. Illustration by Jonathan Miller.

by Steven P. Barlow

and an expert in snowmobile accident reconstruction in both the United States and Canada.

While Hermance has researched cases that involved product defects, poor trail design and adverse weather conditions, the overwhelming majority of accidents, he said, involve human error and are therefore preventable.

## SPEED AND ALCOHOL

On March 11, 1994, at about 10 p.m., 35-year-old David Leonard, his wife and a friend were riding separate snowmobiles on Oneida Lake in central New York when 28-

year-old Gerald Champagne, on a snowmobile traveling toward them, suddenly veered into their paths. Champagne and Leonard collided and were both killed on impact.

Both men had been intoxicated, and the speed of their sleds was estimated at 80 mph.

Gary Homuth, recreation vehicle safety officer with the Wisconsin Department of Natural Resources, sees speed and alcohol as the common thread in snowmobile accidents in his state, as well.

"Whether a snowmobiler drives across a lake into open water or exits a trail on a curve and hits a tree," Homuth said, "in the majority of accidents, if the snowmobilers had

(Continued)



been going at slower speeds, they might have had time to react and possibly avoid those accidents or fatalities."

Homuth recalled one spectacular accident where a snowmobiler left a tavern at night, went across a lake at excessive speed, hit the shore of an island and launched himself and his sled into the air, snapping off a tree 8 inches in diameter and ending up halfway through a cabin.

Homuth said that nearly half of the 30 fatal snowmobile accidents in Wisconsin last season involved intoxicated operators.

A study of snowmobile accidents in New Hampshire cited excessive speed and alcohol as separate factors in 67 percent of accidents. Together, they're a deadly combination.

#### DRIVER INATTENTION

Victor Wood, snowmobile program administrator with the New York State Parks, Recreation and Historic Preservation Division, points to driver inattention as another leading cause of snowmobile accidents.

"It's very easy to become distracted cruising along on the trails, taking in the sights," Wood

said.

For example, on Feb. 26, 1995, David Squadrino, 31, was killed in a daytime snowmobile accident when he struck a nylon boundary rope, which caught him in the throat. The rope had been marked with orange flags.

#### UNFAMILIAR TERRAIN

When you're traveling off groomed snowmobile trails, there are no signs to limit your speed or warn of sharp curves, dangerous terrain or deadly objects hidden by the snow.

Even on familiar terrain, trail conditions can change quickly. Wind can create dangerous snowdrifts, white-outs hamper visibility, and the snow's lack of contrast can impair depth perception.

"You can go from powdered snow to washboard conditions to ice," Hermance said. "You can have a 10-mile lake that's perfectly smooth, then all of a sudden you get a pressure crack that heaves up a 4-foot wall of ice."

#### OPEN WATER AND THROUGH THE ICE

"We get a lot of drownings on the lakes because people don't realize that you can have 20 inches of ice in

one spot and no ice 100 feet away," Hermance said.

"What happens when people fall in is that they don't die from the crash, and they don't die immediately from drowning. The problem is that when they reach up onto the ice, they can't get a grip to pull themselves out," he said.

#### LACK OF SUPERVISION

Homuth said there is usually at least one fatality every year in Wisconsin involving someone under age 16 whose parents allowed unsupervised operation.

"We had a double fatality last year," Homuth said. "Two boys went across a field and hit a piece of farm machinery that was covered by snow. Both were killed."

#### NIGHT RIDING

Night riding presents its own set of problems. It's easy to overdrive the range of your headlights if you go too fast. Face shields tend to ice up at night, and some operators forget to switch from the tinted face shields they used during the day.

Some objects are nearly impossible to see at night. On March 3, 1994, Dale Becotte, 22, was riding his snowmobile at night in a field.

# It **TOPS** Out At About 168



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Becotte struck three guy wires strung from a nearby utility pole. His helmet entangled in the wires and he was suspended upright. His gloves were found beside him, indicating that he had tried to free himself. He strangled on the chin strap of his helmet.

"In one fatal accident," Hermance said, "two people had broken down on their snowmobile at night out on a lake. Another machine came ripping across the lake and ran into them. One person was killed and two were severely injured. As a result of accidents like this, one of the things we're designing right now is an emergency lighting system for snowmobiles.

"We're also looking at air bags for snowmobiles to help redirect the rider away from the immediate impact," Hermance said.

#### RIDE THE TRAILS

Many accidents occur when snowmobiles are illegally operated on roadways. Yet there is an alternative.

As of 1994, there were 107,734 miles of groomed snowmobile trails in the United States, according to Kay Lloyd, co-chair of the

International Snowmobile Council and president of the American Council of Snowmobile Associations.

Members of snowmobile clubs and associations can take most of the credit for those trails. The problem, according to Lloyd, is that while there were 1,224,409 registered snowmobiles in the United States as

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*A study of snowmobile accidents in New Hampshire cited excessive speed and alcohol as separate factors in 67 percent of accidents.*

*Together, they're a deadly combination.*

---

of 1994, only 224,780 snowmobilers belonged to snowmobile associations.

Homuth noted that the states pay only for the gas used when the clubs groom the trails and for the signs the clubs put up. In return, out-of-state snowmobilers provide an estimated \$180 million in revenues in Wisconsin alone.

Statistics show that club members have fewer accidents.

#### LEGISLATE AND EDUCATE

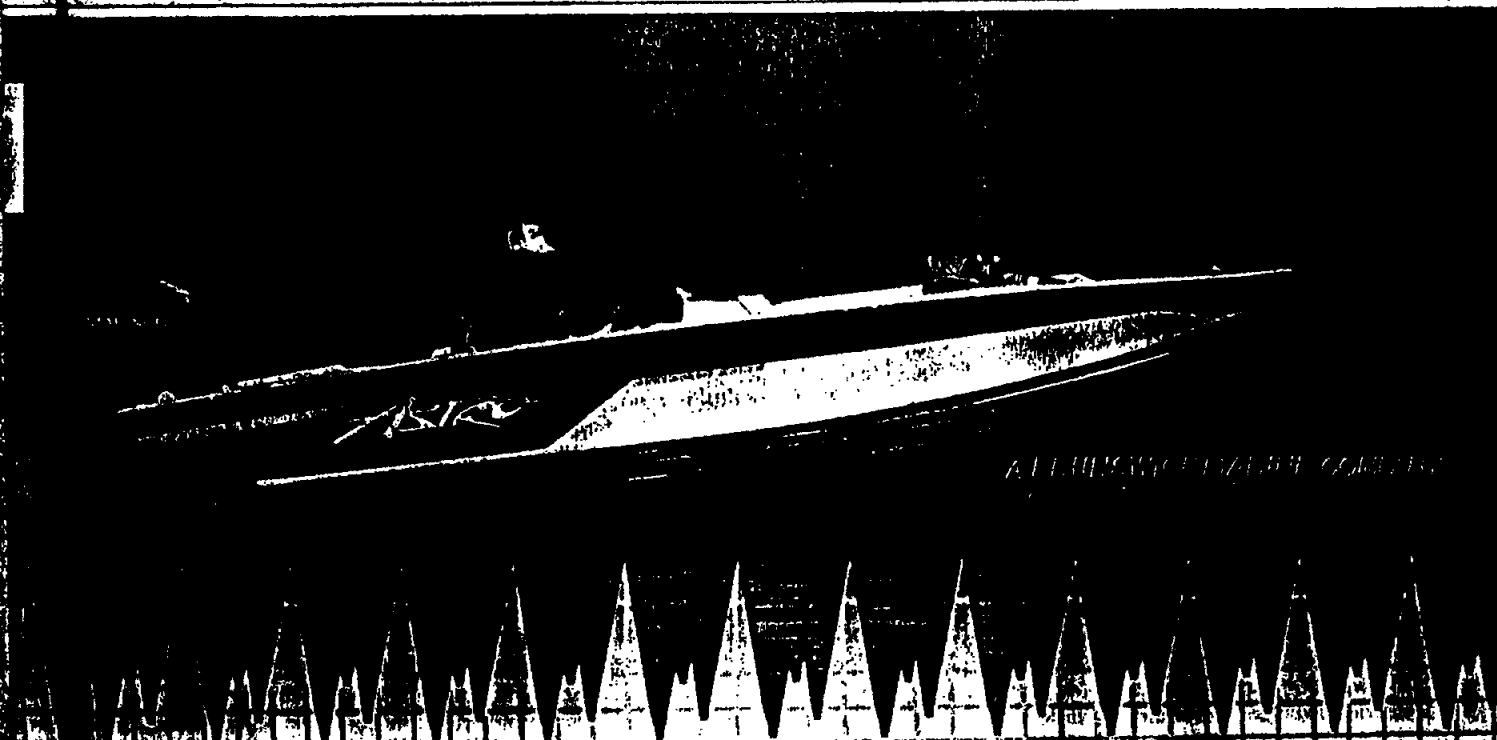
Tougher laws are being enacted to help reduce snowmobile accidents. Illinois will have a tougher drunk driving law in effect Jan. 1, allowing officers to conduct chemical tests to determine if a snowmobile operator is intoxicated. Refusal to submit to the test will result in a suspension of operating privileges for two years.

Education may be the key to reducing snowmobile accidents. But most experts agree that mandatory safety courses for adults may be years away.

Fortunately, the majority of snowmobile accidents can be prevented. If your sled's in good shape and you ride responsibly, your chances of having an accident are small.

"In a nutshell, it comes down to common sense," Wood said.

Stay on marked trails, know the terrain, join a club, operate at prudent speeds consistent with your abilities and weather conditions, and don't combine snowmobiling with alcohol consumption. □



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## AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 402  
(A-98)

Introduced by: International College of Surgeons

Subject: National Snowmobile Safety Course Certification

Referred to: Reference Committee D  
(Robert D. McCaffree, MD, Chair)

1. Whereas, In recent years approximately one in every 1500 to 2500 snowmobile
2. users dies each season in the United States; and
- 3.
4. Whereas, This death rate is 2.5 to 4.0 times the average rate of automobile fatalities
5. annually in the United States; therefore be it
- 6.
7. RESOLVED, That the AMA should assist the public by developing a curriculum for
8. nationally certified snowmobile safety instruction suitable for national use; and
9. further be it
- 10.
11. RESOLVED, That the AMA take such action as may be reasonably necessary to
12. encourage the development and implementation of the safety instruction courses
13. developed in connection with this recommendation.
- 14.
15. Fiscal Note: No significant fiscal impact.

**SnowGlow Inc.**

---

**From:** Al Lakosky <alley@rangenet.com>  
**To:** SnowGlow Inc. <snowglow@rangenet.com>  
**Sent:** Thursday, February 03, 2000 2:26 PM  
**Subject:** Fw: Snowmobile Safety

----- Original Message -----

**From:** Al Lakosky  
**To:** eklim@aol.com  
**Sent:** Thursday, February 03, 2000 2:21 PM  
**Subject:** Snowmobile Safety

February 3, 2000

ISMA  
 Ed Klim  
 International Snowmobile  
 Manufacturer Association

Dear Ed:

My name is Michelle Robillard. I live and have lived in northern Minnesota all my life. This past weekend, I went snowmobiling for the first time ever and put on nearly 100 miles. It was a very exciting and fun time for me and all others this weekend. As you may know, we have had three years of practically no snow, so we were riding on a very big lake.

As the day was ending we decided to visit a resort for some dinner and conversation. As we arrived, we paused at the bottom of a large hill, from the lake to the parking area, so I could be instructed what to do and where to go as it was now dark.

Ready to follow the others up the hill, my machine stalled. I was in the middle of the trail up to the resort, totally dark, with sleds coming down the hill to leave and other riders coming up behind me to head in. Needless to say I was scared to death not knowing quite what to do. I couldn't get the machine started, I wasn't seen, and I didn't know whether to stay with the machine or run away and get help. What a scary helpless feeling! People of course came to rescue me and pulled my machine out of the way, by a sign indicating the way into the resort area. A fellow with us pulled up his machine next to mine and shut it off. Then he turned on an emergency flasher which shined yellow ahead of us and red behind. This was what I needed on my sled! We talked about his sled and that the light was not a custom accessory but a light system he had invented as a result of experiences and stories just like mine. He has been trying to sell his system to Artic Cat and Polaris for the last three years! This is a must for all snowmobiles!!

The next day we are riding again. A beautiful Sunday and at dusk we are heading back to our cabin. As we're riding and it's just getting dark, up ahead I noticed what looked like a large snow chunk and something my partner would jump so I backed away. Much to our surprise, there in the middle of the lake trail was a stalled new snowmobile! No one around. It was now getting dark. All I thought of was if all of us were riding in a line across on this trail, one of us would have hit this sled or swerved to miss it and hit one of our own! We all stopped a moment and talked again about the emergency flasher system. Al said it would run continuously for 60 some hours, and who knows how long the sled was there or would be there, it was Super Bowl Sunday!!! Here again, on my first ever snowmobiling adventure, I had been frightened and now I was worried for others and there was nothing we could do!

We got home safe and sound and though it was a very fun weekend overall, I could not get these two dangerous incidents out of my mind. There must be something I can do. I want these lights on my sled and my partner's and my children's. So Monday I headed to a local snowmobile store to inquire about something like the flashers I had seen or something at least similar we could use to prevent this again. I was told there is nothing except some strobe lights we could carry. I wondered why and/ or if this flasher system I saw was something the snowmobile manufacturers would be installing in new sleds or we could buy and add to our own, so I contacted them directly.

I spoke with Artic cat and Polaris, they thanked me for my call and politely gave me your company/organizations name, ISMA, your name, phone number and e-mail. You were given high regard as to a way for me to tell my story and possibly make a difference. I was told you work with all the big manufacturers and are the stamp of approval for safety. You are who I need to talk with. I have also become acquainted with Al Lakosky, the inventor of the emergency flashers.

I will give you a call later this afternoon on this matter to learn more about ISMA and to discuss what if anything is being done to prevent accidents like this from ever happening. I will look forward to talking with you.

Sincerely, Michelle

*Light***Minnesota House of Representatives**

KEY: ~~stricken~~ = old language to be removed  
 underscored = new language to be added

NOTE: If you cannot see any difference in the key above, you need to change the display of stricken and/or underscored language.

Author and Status List versions

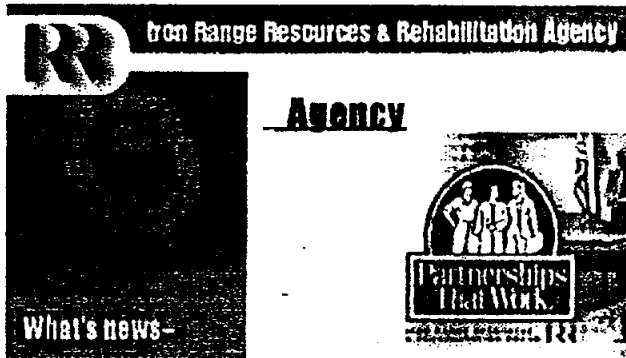
**H.F. No. 3479, as introduced: 81st Legislative Session (1999-2000) Posted on Feb 15, 2000**

- A bill for an act
- 1.1 relating to natural resources; requiring new
- 1.2 snowmobiles to have auxiliary hazard lighting systems;
- 1.3 amending Minnesota Statutes 1998, section 84.821, by
- 1.4 adding a subdivision.
- 1.5
- 1.6 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:
- 1.7 Section 1. Minnesota Statutes 1998, section 84.821, is
- 1.8 amended by adding a subdivision to read:
- 1.9 Subd. 3. [AUXILIARY LIGHTING SYSTEM.] All snowmobiles
- 1.10 manufactured after June 30, 2002, and sold in the state after
- 1.11 December 31, 2002, shall be designed and made to provide for a
- 1.12 secondary or auxiliary hazard lighting system. The lighting
- 1.13 system must:
- 1.14 (1) have an energy source separate from the main energy
- 1.15 source that:
- 1.16 (i) runs the system for a minimum of 40 hours at zero
- 1.17 degrees Fahrenheit; and
- 1.18 (ii) functions in temperatures of 30 degrees below zero
- 1.19 Fahrenheit or colder;
- 1.20 (2) have an on/off switch that is separate from the main
- 1.21 electrical system;
- 1.22 (3) emit yellow lighting from the front of the snowmobile
- 1.23 and red lighting from the rear;
- 1.24 (4) have a flashing display; and
- 1.25 (5) be visible in unobstructed darkness, from at least
- 2.1 one-half mile distant from the front and rear of the snowmobile.

*House Bill as introduced by chief author - BAKK  
 Others - Rickavina, Tomason 2-16-00*







**Agency**



**In the news**



**John Swirk**  
Commissioner

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**H**eadquartered in Eveleth, Minn., the Iron Range Resources & Rehabilitation Agency is a unique state agency designed to help strengthen and diversify the economy of northeastern Minnesota. Specifically, the IRRR serves the interests of the Taconite Tax Relief Area (TTRA), a geographical region encompassing approximately 13,000 square miles. IRRR programs, including those that encourage economic development and tourism, are funded by taxes levied against the region's taconite mining companies. The agency and its programs receive no money from the state's general fund. In addition to assisting existing businesses and communities, as well as providing incentives for business relocation and enhancement of tourism to the region, the agency owns and operates Ironworld Discovery Center in Chisholm and Giants Ridge Golf and Ski Resort near Biwabik.

**History**

The IRRR was created by the 1941 Minnesota Legislature to help ease northeastern Minnesota's dependence on the natural ore and timber industries. Our mission is and always has been one of economic development and diversification.

**Hours**

Monday - Friday, excluding state holidays  
8 a.m. - 4:30 p.m.

**Contact**

**Staff Directory**

Iron Range Resources & Rehabilitation Agency  
P.O. Box 441, Eveleth, MN 55734  
(218) 744-7400  
800-765-5043

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RESOURCES &  
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BOARD**



P.O. Box 441, Highway 53 South  
Eveleth, Minnesota 55734-0441  
(218) 744-7400 • 800-765-5043  
Fax: (218) 744-7401

March 27, 2000

Mr. Al Lakosky  
President  
Snow Glow, Inc.  
312 2<sup>nd</sup> Avenue North  
Virginia, MN 55792

Dear Mr. Lakosky,

Thank you for sharing the information and giving me a sample unit and video tape on your latest venture to build a hazard lighting system for snowmobiles. I think that the benefits from such a system are obvious, and I personally support not only the use of your lighting system, but would also encourage it to be implemented at the manufacturer's level to go into production.

Good luck and let me know if I can be of further assistance.

Sincerely,

A handwritten signature in black ink that reads "John Swift". The signature is written in a cursive, flowing style.

John Swift  
Commissioner  
IRRRB

JS:sk\LakoskyLet



March 1, 2000

Al Lakosky  
c/o Snow Glow  
312 2<sup>nd</sup> Avenue North  
Virginia, Minnesota 55792

Dear Mr. Lakosky:

The other day I overheard you asking if anyone felt there would be a need for emergency flashers on snowmobiles.

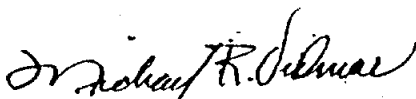
I am writing this letter of support to say emphatically that **"yes there should be emergency flashers on snowmobiles,"** and to reiterate an experience my wife and I had a few years ago on a snowmobile trail near Crane Lake, Minnesota.

We were out for a short ride on a dark and cold January night. Without realizing it I had gotten quite a distance ahead of my wife, when my snowmobile suddenly broke down and quit running, in turn causing both the head and tail lights to go out. As I was trying to man-handle my snow machine off the trail, my wife caught up to me; on such a dark night and with no lights on my sled, she never saw me until it was too late....striking me in the back and knocking me into the woods, while her machine flipped over....hurling her down the trail about twenty yards. To shorten my story....I ended up with broken ribs, and although my wife escaped injury, this could have been a major tragedy with one or both of us sustaining serious injuries and possible death in the middle of the woods alone.

I firmly believe that our near tragic experience, and many other similar incidents I have heard about, could have been easily averted if emergency flashers were standard equipment on snowmobiles.

I whole heartily support you in the development of effective emergency flashers for snowmobiles.

Sincerely



Michael R. Vidmar  
P.O. Box 103  
Crane Lake, Minnesota 55725

Snow Glow, Inc  
Al Lakosky President  
312 2<sup>nd</sup> Ave N  
313 Virginia, MN 55792

March 14, 2000

Dear Mr. Lakosky,

I have been a proponent of some sort of emergency lighting system for snowmobiles for many years. The reasons are obvious and are pretty much the same basic reasons we have four-way flashers on cars. All too often, someone breaks down with a snowmobile at night and has no way of warning oncoming vehicles. In addition, it is quite common for snowmobiler's to stop in or along a trail to talk. They usually turn the machine off so they can hear each other. With the machine off, they do not have anyway to warn oncoming snowmobiles of their existence. A safety lighting system would certainly enhance safety in these situations that are very common, as well as other nighttime situations.

Sincerely,

Richard Hermance  
President  
Collision Research, LTD



**FAST, Inc.**  
201 Jackson Street  
Eveleth, Minnesota 55734-9604  
Sales Order Line: 218-744-2101  
FAST Tech Line: 218-744-2107  
Fax Line: 218-744-5872

Alan Lakosky  
Snow Glows, Inc.  
312 2nd. Avenue North  
Virginia, MN 55792

March 6, 2000

Dear Alan:

I thought it may be important for you to know how the Safety-Stop lighting system worked for us this past year. From the get-go I thought your design and idea was pretty strong and seemed only to make sense to incorporate it into our vehicle's design. A snowmobile as advanced as the Blade needs also to be concerned about safety, to which we are.

Mother nature has ended our season somewhat short though we did get the opportunity to show our vehicles (which included the Safety-Stop light) across eight states from New York to North Dakota and three Canadian Provinces during this season. As you may know, where ever we go we cause quite the excitement and I was particularly pleased to see the interest in the Safety-Stop system. The comments were wide ranging and always positive though most wondered why it took so long for someone to recognize the need.

We incorporated the Safety-Stop into the Blade's design early on and I am pleased we did for several reasons. First, it was to help out a fellow business that we have dealt with for numerous years. Second, it was different and I was sure it would raise some questions and curiosity at the shows. Third and foremost, it's true brilliance did not become apparent until its actual use on the trail. Not only did it work it caused many to stop and take notice... it really made them think.

In close, your product worked extremely well for us both on and off the trail and it has made good sense for us to be a part of your breakthrough idea. Safety is high on our priority list and this is certainly a product that all manufacturers should seriously consider.

Should you need any assistance to further your products' use please do not hesitate to contact me directly.

Sincerely,

A handwritten signature in black ink, appearing to read "DK", is written over a large, stylized scribble.

David J. Karpik  
VP Sales & Marketing  
FAST, Inc.



**FAST INC.**

201 Jackson Street  
Eveleth, Minnesota 55734

Phone: Order Line 218-744-2101  
Tech Line 218-744-2107  
Fax Only Line 218-744-5872

March 9, 2000

Al Lakosky  
Snow Glow, Inc.  
312 2<sup>nd</sup> Ave. N.  
Virginia, MN 55792

RE: Safety Stop Light

Dear Al:

I am an employee of FAST, Inc. doing a great deal of traveling promoting the Blade, the World's most advanced snowmobile. I have been very pleased with the response I continually get on the Safety Stop Light you designed. I wanted to let you know of the many compliments and questions I have received regarding it.

I am often the one sharing knowledge when someone sees your light for the first time. After I explain what it is, I am flooded with questions. Because the Safety Stop Light has a self-contained battery pack, the snowmobile doesn't need any power from any other source; it works on its own power to be flashing at the very moment you need it. Every single snowmobile industry event I repeatedly hear the same things: "Why haven't all snowmobile manufacturers used these?" "Why doesn't my snowmobile have one?" and "How come they all don't?"

The Blade is the industry's most advanced snowmobile and it only seems fitting that it would include this revolutionary safety feature as standard equipment. Thank you for the great invention.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Rogers".

Brian Rogers

**Al Lakosky**

---

**From:** "David Dill" <orr@the-bridge.net>  
**To:** "Al Lakosky" <alley@rangenet.com>  
**Sent:** Tuesday, March 14, 2000 1:09 PM

3/14/00

Michelle Robillard and Al Lakosky

**RE: Safe Stop flasher system**

Over the years numerous search and rescue missions have been launched by myself and members of our community which lies at the edge of Voyageurs National Park. Finding a snowmobiler who is lost or who's snowmobile is disabled on the large lakes of Voyageurs National Park can be a long drawn-out process when the overdue party's snowmobile will not run and the lights are inoperative. More often than not time is of the essence. An emergency flashing light system on a lost/disabled snowmobile would greatly enhance a search team's ability to locate a lost/disabled snowmobiler.

I would support the addition of an emergency lighting system on snowmobilers at the manufactures level.

Very truly your,  
David Dill  
President  
Crane Lake Snowmobile Club, Inc.

03/14/2000



## **Al Lakosky**

---

**From:** "Al Lakosky" <alley@rangenet.com>  
**To:** <eklim@aol.com>  
**Sent:** Thursday, April 20, 2000 11:29 AM  
**Subject:** Appreciation

April 20, 2000

Hello Ed,

It was very nice to meet you, and thank you for allowing us the opportunity to attend the SAE / SSCC meeting. For Al and Snow Glow, this meeting, with all the manufacturers in one room, has been a goal for more than four years. It was our pleasure to share with everyone the history of our being there, to explain and demonstrate the emergency flasher system, and to ensure all that we are on your team- who's purpose is to improve the safety and enjoyment of the sport of snowmobiling.

Ed, if you would, please send me the list of the names and addresses of everyone at the meeting so we can thank each one personally. As I said, this was a very important meeting to us and we would really like to express our appreciation.

We look forward to hearing from you again. Happy Easter.

Best Regards,  
Michelle and Al

05/01/2000

**Al Lakosky**

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**From:** <EKlim@aol.com>  
**To:** <alley@rangenet.com>  
**Sent:** Monday, May 01, 2000 2:37 PM  
**Subject:** Re: SSCC Contact List

Here is the list of manufacturer's representatives that were at the meeting in Minneapolis that you attended:

Fred Bernier and Brian Nelson - Arctic Cat  
PO Box 810  
Thief River Falls, MN 56701  
(218) 681-8558

Guy Hetu - Bombardier Inc.  
565 de la Montagne St.  
Valcourt, Quebec CANADA J0E 2L0  
(450) 532-2211

Norm BergandMike Anderson - Polaris Industries  
301 5th Ave SW  
Roseau, MN 56751  
(218) 463-4457

Ron Ruzewski and Bruce Enderle - Yamaha Motor Corp. USA  
1255 Main Street  
Coon rapids, MN 55448  
(612) 754-6927

Randy Karpik - FAST Inc.  
201 Jackson Street  
Eveleth, MN 55734  
(218) 744-3179

Walter Ross - SAE  
c/o J W. Speaker  
W185 N11315 Whitney Drive  
Germantown, WI 53022  
(262) 251-6660

Sincerely,  
Ed Klim  
ISMA



# ARCTIC CAT®

September 6, 2000

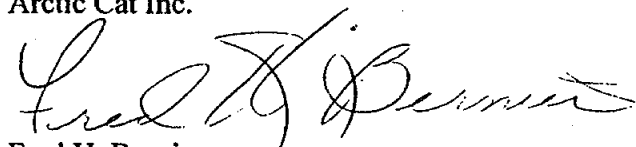
Mr. Al Lakosky  
Miss Michelle Robillard

I enjoyed the opportunity to talk with both of you on Aug. 31<sup>st</sup>, here at Arctic Cat.

I feel you have taken the proper approach concerning your product by presenting it to the SSCC Board at our regular meeting on 4/18/00. I do have a conference call meeting of the SSCC Board coming up shortly and the emergency flasher system is one of the topics for discussion.

The general approach from an industry stand point is far superior to segmenting various states or groups, and I appreciate having had the opportunity to discuss with you. SSCC will respond when they feel they have gathered enough information to make an accurate decision on how to proceed.

Best Regards,  
Arctic Cat Inc.



Fred H. Bernier  
Manager, Product Testing & Certification

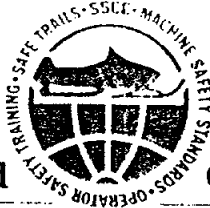
*Fred Bernier*  
Product Testing &  
Certification Manager



# ARCTIC CAT®

Telephone (218) 681-8558  
Direct Line (218) 681-9799, ext 3302  
Fax (218) 681-8183

ARCTIC CAT SALES INC., 601 BROOKS AVE. S., THIEF RIVER FALLS, MN 56701



**Snowmobile Safety and Certification Committee, Inc.**

1640 Haslett Road, Suite 170 • Haslett, Michigan 48840 • (517) 339-7788 Fax: (517) 339-7798

September 12, 2000

Snow Glow Inc.  
Attention: Al Lakosky  
312 Second Ave North  
Virginia, MN 55792

Dear Al,

As we are all enjoying the start of a beautiful fall season in the Great Lakes region with the anticipation of a fabulous winter, I thought I would drop you a short note regarding your emergency lighting system. This is a follow up to our meeting and discussion a few months ago in Minnesota with the SSCC Committee.

The Snowmobile Manufacturers, as they mentioned to you at the meeting, are researching the need for the type of product that you manufacture. They are preparing to test your product this winter season, which hopefully will be a snowy one.

I hope all is well with you in Minnesota and I look forward to talking with you in the future.

Sincerely,

Ed Klim  
Chairman, SSCC



1255 Main St., Coon Rapids, Minnesota 55448-1410 763-755-2743 Fax 763-754-6939

October 4, 2000

Snow Glow Inc.  
312 2<sup>nd</sup> Avenue North  
Virginia, MN 55792

Dear Mr. Lakosky:

Thank you for your letter of September 12<sup>th</sup>, requesting a meeting with Yamaha Motor Corporation. I would like to inform you of our (Yamaha Motor Corporation) current position regarding your Safe-Stop Hazard Light System.

After your presentation to the SSCC committee of which I attended, I informed all of the Yamaha management of the snowmobile division of your product and your presentation. While some of our people have had exposure to your product in the past, for most it was the first introduction. A short time after the meeting I received one sample of your product and again informed management by demonstration.

At this time, the Yamaha snowmobile division does not have any additional questions regarding the function and benefits of your product. We understood your product and presentation very well. Our plan will be to evaluate your system during the upcoming winter season and contact you at that point if we have additional questions. We will also await further information from the SSCC regarding the future direction of auxiliary lighting systems for snowmobiles.

I would like to request one additional sample kit of your hazard lighting system to forward to our engineering department in our main office in Japan.

If you have any future updates, information or statistics regarding your product, please feel free to forward to me and I will continue to keep the snowmobile division updated.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Ruzewski".

Ron Ruzewski  
Assistant Department Manger  
Yamaha Motor Corporation  
Snowmobile Engineering Division  
North American Snowmobile Headquarters

Cc: Yamaha Motor Corporation, RV Engineering Division

**snowglow**

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**From:** "Ron Ruzewski" <ron\_ruzewski@yamaha-  
**To:** <snowglow@snowglow.com>  
**Sent:** Wednesday, August 22, 2001 5:34 PM  
**Subject:** report  
Michelle,

With regards to the snowglow unit we had last season.

**Installation:** Not too difficult although on the unit we installed the snowglow, we could not use the headlamp for the installation due to the design. This hampered the performance of the unit.

**Function:**  
The unit functioned and the battery lasted the season of use. The visibility from an angle was less than I expected but possibly due to the installation.

The rear light was not visible any further than just the reflectors which are located at the rear when approached by another unit with the light on at night.

For location, if looking directly at the unit the function was good. (both front and rear)

Lacking 360 deg visibility.

**Conclusion:**  
Basically the unit worked good and as marketed. There are limitations to the system just as there are with other systems. The unit does draw attention but the variables of terrain, conditions and speed are also related to the effectiveness of the product.

I hope this is what you are looking for. I am sure we will have more to discuss in the future or Ed will.

Regards,

Ron Ruzewski  
YAMAHA North American Snowmobile Headquarters (NASH)  
Snowmobile Engineering Division  
Ph: 763-754-6927  
Fax: 763-754-6939  
e-mail: [ron\\_ruzewski@yamaha-motor.com](mailto:ron_ruzewski@yamaha-motor.com)

8/23/01

*Arctic Cat*

July 30, 2001

Dear: Mr. Al Lakosky  
Ms. Michèle Robillard

Following is the results of my evaluation of 3 different designs of signal light systems which includes the sample supplied by Sno Glow. Please review. If you would like to discuss this further you may contact me at (218) 681-9799, ext. 3302.

Sincerely,

*Fred R. Bernier*

Fred Bernier

**Durability:**

I installed the Sno Glow flasher system on a 2001 Panther 4-stroke unit. During installation it should be noted that the wires running to the rear lamp had to be lengthened. During the course of the winter 4300 miles were accumulated on this snowmobile with the flasher system installed. The flasher system remained functional throughout the accumulated miles. Durability of the system appears adequate provided care is used during installation.

**Performance & Function.**

Tested performance of system in various conditions, i.e. clear, blowing snow, lake, trails, fog, etc.

Best performance was noted for clear and lake conditions. Visibility up to 1 mile if there were minimal competing light sources. Blowing snow and fog offered the least performance. It appears any form of interference diminishes the performance greatly. With any interferences the side visibility is virtually nonexistent. In addition, if you approach the snowmobile from the rear on a winding trail, the reflex of the tail lamp in the approaching machine's headlamp completely dominates the flashing characteristics of the system and you do not perceive any flashing warning at all.

Test 2 other systems, these were remote strobe type signal lights.

One was a single directional which clipped to the windshield. It performed as well or better than the previous system by virtue of its higher position on the snowmobile itself. The drawback was it was very directional and could only be seen from 1 approach direction.

The second system was a 360° visibility amber strobe light which also clips to the windshield. From a stand point of pure visibility in all conditions, this system was superior in all tests, by virtue of 360° visibility, and its higher location on the vehicle. Also, the color was not diluted by approaching lights.

Drawbacks to this light as well as the single directional lights, could be lost, could be removed by a passerby. Additional benefits, could be located remotely in a tree or high pile of snow in the event your snowmobile is not in a visible area. Also, could be carried by individual walking out on a busy snowmobile trail or along the highway.

I would be happy to discuss my findings and observations with you further if you desire.



# **SNOW GLOW® INC.**

**Manufacturers of Specialized Lighting Systems**

312 2nd Ave North, Virginia, MN 55792 \* 218-749-4829 \* fax 218-749-6909  
snowglow@rangenet.com <http://www.snowglow.com>

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August 27, 2001

Dear Publishers:

Attached is a press release we are asking you to include in your next publication regarding a survey being conducted through Snow Glow® Inc at the request of the snowmobile manufacturers. The purpose is to gather more statistics about the interest and need for additional lighting on snowmobiles. If you would consider printing the entire survey in your publication, we believe it would help us to reach more riders for more complete information due to the fact that everyone of course does not use the Internet, and they are reading your magazine. Please consider the benefits to us all with your help.

We appreciate your time and attention. If you have any questions please call Michelle at 218-749-4829

Best Regards,

Michelle Robillard

## **PRESS RELEASE: ATTENTION ALL SNOWMOBILERS!!**

Beginning August 24, 2001 a Survey is being conducted to gather information and statistics regarding the interest and need for additional lighting on snowmobiles, especially when purposely parked or shut down due to mechanical failure in low light and nighttime scenarios.

The completion of this survey will provide the snowmobile manufactures with riders experiences and opinion of the addition of Hazard Lighting on future snowmobiles. When you speak your mind, better products get to market. The manufacturers are happy and the consumers are happy. It's that simple.

Please take a few moments right now to complete the survey at [www.snowglow.com/Survey.htm](http://www.snowglow.com/Survey.htm) or go to [www.snowglow.com](http://www.snowglow.com) , select the Links page and click on the Survey The results of this survey will be published and all respondents names will be entered into a drawing for a Snow Glow® Hazard Light System to be given away Nov. 10, 2001. Thanks for your input and Safe Riding!

Surveys attached

# SNOW GLOW® INC.

Manufacturers of Specialized Lighting Systems

312 2nd Ave North, Virginia, MN 55792 \* 218-749-4829 \* fax 218-749-6909  
snowglow@rangenet.com http://www.snowglow.com

Dear Fellow Snowmobilers,

By the request of a Snowmobile Manufacturer in 1997, Snow Glow®, Inc was asked to build a secondary lighting system. This system would be self-reliant and would show light when a snowmobile is parked or disabled in dark or low light scenarios. Thus, an Emergency Hazard Flasher System was developed and is available as an after market accessory. Just as with hazard lighting on an automobile, this system emits a pulsing yellow light to the front and red light to the rear that can be seen for well over a mile. The inconvenience with this system is however, that it is not particularly consumer friendly to install.

Installation could easily be done at the factory and at an equal or lesser cost to you the rider. Instead, the manufacturers are now saying there is no need for this system and you the snowmobilers are not interested in this type of safety and convenience system on your sled. They suggest reflectors are enough; reflective clothing is available and you have the option to carry a strobe light.

While these items do provide some measure of safety, a built-in hazard light system could be a life saver, whose time has come. Tell us what you think. To help ensure that snowmobiling is around for years to come - for you, your children, and your grandchildren to enjoy, please complete the brief questionnaire below and return it to:

Snow Glow® Inc. 312 2nd Ave North Virginia, MN 55792.

The findings and results of this survey will be published in our continuing effort to keep you informed, and will be presented to all Snowmobile Manufacturers; the SSCC Snowmobile Safety and Certification Committee; ISMA International Snowmobile Manufacturers Association; SAE Society of Automotive Engineers; the Canadian Transport; and all other snowmobile affiliates, Insurance Companies, Law Enforcement agencies and other individuals who have assisted in this process.

Thank you in advance for your time and input. Remember, every single voice can make a difference.

1) How many years of riding experience do you have? \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Male: \_\_\_\_\_ Female: \_\_\_\_\_ Age: \_\_\_\_\_

2) What percent of your riding is done at night?  
\_\_\_\_\_ do not ride at night  
\_\_\_\_\_ less than 10%  
\_\_\_\_\_ 10% to 50%  
\_\_\_\_\_ more than 50%

Random samples  
of surveys attached

3) Have you attended a Snowmobiling Safety Course? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, were you instructed on what to do when stopped or parked on a trail or lake at night? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, what were the instructions?

4) When riding at night, have you ever been in a situation where stopped with mechanical failure, you felt uneasy or concerned about not being seen by oncoming traffic thus creating a potential collision? \_\_\_\_\_ yes \_\_\_\_\_ no

5) When riding at night, have you ever been in a situation where you purposely stopped on a lake or trail and felt uneasy or concerned about not being seen by oncoming traffic thus creating a potential collision? \_\_\_\_\_ yes \_\_\_\_\_ no

6) Do you use or carry supplemental lighting with you when you snowmobile? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, what type?: \_\_\_\_\_

- 7) At night, do you ever purposely stop and park on the side of a trail and walk away from your machine to read a map, wait for others, take in the view, rest and enjoy some quiet time, etc?  yes  no

If yes, how do you make your snowmobile visible in the event of oncoming traffic? Please explain.

- 8) Have you had experience or know of an experience when lost or broken down without any lights?  yes  no
- 9) Do you personally have or know of anyone who has had the experience of being in any type of collision due to the fact that a snowmobile was stopped?  yes  no

If yes, will you share your story?

- 10) Can you see the benefit and convenience of having a hazard light installed on your snowmobile?  yes  no
- 11) A snowmobile hazard flasher system has been called by some the most essential and invaluable safety feature yet introduced to the sport of snowmobiling. Others love the convenience and built-in-security. Still others say there is no need. What do you say? On a scale of 1 - 10 (with 10 being the highest) how important do you feel hazard flashers could be to the sport of snowmobiling? \_\_\_\_\_

Please explain:

- 12) Would you be willing to incur the minimal increase in cost of a new snowmobile to have an emergency hazard system as a standard feature?  yes  no
- 13) Please add any additional comments, ideas and input regarding the sport of snowmobiling in general:

Thank you! Your completing this form and sending it back will aid in the development of new, cost efficient and sensible accessory features on new snowmobiles!

Safe riding and we hope to see you on the trails.  
Your friends and fellow riders at Snow Glow® Inc.

**snowglow**

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**To:** <snowglow@rangenet.com>  
**Sent:** Friday, September 14, 2001 10:58  
**Subject:** Hazard Light Survey

Below is the result of your feedback form. It was submitted by  
( ) on Friday, September 14, 2001 at 10:58:10

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sex.and.age: Male 36-45

years.riding: Over 21 years

how.much.night.riding: 10% to 50%

firstname: Michael

lastname: Palsson

ContactEmail: [REDACTED]

street: [REDACTED]

city: Osieksund

state: Sweden

zipcode: [REDACTED]

Make.and.Model.Snowmobile: Polaris - Various models

Ever.Attend.Safety.Course?: Yes, the instructions were to move the vehicle aside from the trail if possible.

Are.You.Concerned.When.Broke.Down.Because.Of.Possible.Collision?: Yes

Have.You.Purposely.Stopped.At.Night?: Yes many times. You're always listening for other snowmobiles being prepared to start your own sled in case someone is getting close to you.

Do.You.Carry.Supplemental.Lighting: Yes a flashlight (Mini-Maglite)

If.You.Stop.What.Do.You.Do.To.Be.Seen?: If i can't park it in a 100% safe place i leave the engine running.

Have.You.Ever.Been.Lost.Or.Broken.Down.At.Night?: No, hope i never will because that's a BAD situation.

Do.You.Know.Of.An.Injury.or.Collision.Because.Stopped.With?: Not when things went really bad but some close ones.

Can.You.See.Benefit.Convenience?: Clearly!

One.To.Ten.Scale.Need?: I would give it a 10 because it doesn't only improve safety when riding/parking. It would also be a great help finding people/sleds getting lost.

---

9/14/01

snowglow

To: <snowglow@rangenel.com>  
Sent: Monday, September 10, 2001 1:35  
Subject: Hazard Light Survey  
Below is the result of your feedback form. It was submitted by  
( ) on Monday, September 10, 2001 at 13:35:41

---

sex.and.age: Male 21-35

years.riding: 11 - 15 years

how.much.night.riding: 10% to 50%

\*firstname: Edson

lastname: Pfeiffelman

Contact:mail: [REDACTED]

street: [REDACTED]

city: Grand Junction

state: CO

zipcode: [REDACTED]

Make.and.Model.Snowmobile: 2000 Arctic Cat ZR 500

Ever.Attend.Safety.Course?: yes.. pull the very far right or shoulder of the trail and to start your snowmobile when other traffic is coming in either direction and if they are coming in the direction that they see your taillight then flash your brakes a few times so they see the bright light.

Are.You.Concerned.When.Broke.Down.Because.Of.Possible.Collision?: NO

Have.You.Purposely.Stopped.At.Night?: yes.

Do.You.Carry.Supplemental.Lighting: yes. Flashlight. and emergency flashing beacon like used on a lifevest.

If.You.Stop.What.Do.You.Do.To.Be.Seen?: I pull on top of the bank and get right off the trail.

Have.You.Ever.Been.Lost.Or.Broken.Down.At.Night?: yes. Had a buddy lead and I followed him.

Do.You.Know.Of.An.Injury.or.Collision.Because.Stopped.With?: None.

Can.You.See.Benefit.Convenience?: yes.

One.To.Ten.Scale.Need?: 10 as snowmobile prices climb, I think having the best equipment and options available on my sled would make me a happier and more prepared snowmobiler especially when it comes to safety equipment.

Other.SnowGlow@Products.Questions?: nope.

---

9/10/01

**snowglow**

To: <snowglow@rangenet.com>  
Sent: Wednesday, September 12, 2001 11:17  
Subject: Hazard Light Survey  
Below is the result of your feedback form. It was submitted by  
( ) on Wednesday, September 12, 2001 at 23:17:33

sex and age: Male 36-45

years riding: 16 - 20 years

how much night riding: Less than 10%

firstname: jp

lastname: beck

Contact Email: [REDACTED]

street: [REDACTED]

city: leaPrapids

state: manitoba

zipcode: [REDACTED]

Make and Model Snowmobile: ski-doo machz 800

Ever Attend Safety Course?: yes park off trail and try to park close to shore.

Are You Concerned When Broke Down Because Of Possible Collision?: yes i have. i carry a strobe type flashlight.

Have You Purposely Stopped At Night?: as i said i carry a strobe type flashlight.

Do You Carry Supplemental Lighting?: yes

If You Stop What Do You Do To Be Seen?: no

Have You Ever Been Lost Or Broken Down At Night?: no

Do You Know Of An Injury Or Collision Because Stopped With?: yes. a friend of mine had mechanical problems he pulled off the side of the trail but did not have any other lighting. meanwhile another friend came up behind him, meanwhile its was snowing and at night, he was struck and sustained a serious leg injury. NOW he carries a light like mine.

Can You See Benefit Convenience?: yes.

One To Ten Scale Need?: 10. snowmobile manufactures should install this device because it will save lives.

Other SnowGlow® Products Questions?: where do you distribute your products in canada