SB 73

Alaska State Legislature

Senator Hollis French, Chair
State Capitol, Room 417
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Senate Judiciary Committee

MEMORANDUM

March 18, 2009

TO: Legal

FROM: Cindy Smith 465-6641

RE: SB73

Please prepare an as-passed final Judiciary CS to SB73 (LS0360\A) with an amendment to set an effective date of October 1, 2009.

Thanks. Call w/any questions!

Senator Linda Menard

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Alaska State Legislature

Sponsor Statement for SB 73

By passing Senate Bill 73, motorists would be required to use their vehicle's headlight system at all times while on Alaska's roads.

The bill will address a key goal of the Alaska Highway Safety Office's Strategic Highway Safety Plan. That plan recommends changing state law to require headlight use at all times. The Alaska Highway Safety Office backs up the need for the law with research showing a decrease in traffic accidents where daytime running lights are used. Enforcement of the headlight law could decrease head-on collisions by 7 percent to 15 percent, the AHSO has determined.

The effectiveness of "headlights on" rules can be seen on the Seward Highway. In the mid-1990s, signs were installed along the highway from Anchorage to Seward reading "Headlights On At All Times." The Department of Public Safety says the signs were very effective in saving lives. According to the Department of Transportation, there was a marked decrease in numbers of crashes around the time of sign posting on the Seward Highway.

Similar results have been seen in other countries located in Polar Regions like Alaska. In Sweden, which has similar weather conditions to Alaska, studies have found that the requirement to use headlights at all times reduced crash rates by 20 percent in urban areas and 17 percent in rural areas in winter months.

Currently, 39 out of 50 states, including Alaska, require use of headlights on motorcycles at all times while operating on roads. Experts report the headlights increase the conspicuousness of motorcycles, allowing other motorists to more easily see them.

Today, drivers pulled over without their headlights on in areas requiring headlights are fined $50 and two points on their license. According to Lt. Rodney Dial of the Alaska State Troopers, those fines would likely carry over statewide if SB 73 is passed.

Senate Bill 73 will increase the safety on Alaska's roadways by making all vehicles easier to see while traveling, especially during Alaska's long periods of dusk and dawn.

Headlights On At All Times Law (SB73 - 2009)
Estimate of Sign Cost

Community/Area	Location	No of Signs
Prudhoe Bay	Departing South, Dalton Hwy	1
Fairbanks	Departing, Steese, Parks, Richardson	3
Delta	Departing, Richardson, Alaska Hwy N&S	3
Tok	Departing, Tok Cutoff W, Alaska Hwy N&S	3
Alaska Border-Alaska Hwy	For W-bound arrivals	1
Glenallen	Departing, Glen W, Richardson N&S	3
Wasilla	Departing, Parks Hwy N	1
Palmer	Departing, Glen Hwy E	1
Valdez	Departing Richardson Hwy N	1
Glen-Parks Interchange	Departing Glen E, Glen S, Parks N	3
Anchorage	Airport	2
	Departing South-Seward Hwy	1
	Departing North, Glen Hwy	1
Kenai	Airport	1
Seward	Departing, Seward Hwy N	1
Soldotna	Airport	1
	Departing, Sterling Hwy N&S	2
Homer	Departing, Sterling Hwy N	1
Haines	Departing Haines Hwy N	1
Alaska Border-Haines	For S-bound arrivals	1
Skagway	Departing Klondike Hwy N	1
Alaska Border-Klondike	For S-bound arrivals	1
Juneau	Ferry Terminal	1
	Airport, Yandukin& Shell Simmons	2
Ketchikan	Ferry Access to Airport-both sides on Tongass	2

39 Signs

Intent:

Install signs at:
Major Airports
Major Ferry Terminals
At Major Junctions
At border crossings

We want to minimize the number of signs- just post at major entry points or junctions of high volume roads

4 Line Sign

7	ft. wide
4.5	ft. tall
31.5	s.f.
110	$/s.f.
3465	Sign Cost
$ 135,135	Total

HH.3. Headlights On at All Times – Tier One

Description: Around 15 people die in Alaska each year in head-on crashes. National data indicate headlights-on signing and enforcement could eliminate 7 to 15 percent of these crashes.

This plan recommends changing state law to require headlights on at all times. If this is not done, we can still post signs that will make headlights mandatory on particular sections of road. 13 AAC 04.010 gives the signs the authority of law.

Responsible Agency:

Lead Agency: Alaska Department of Transportation and Public Facilities, Alaska Highway Safety Office (AHSO)

Contact Name, Title: Cindy Cashen, Highway Safety Office Administrator

Phone: (907) 465-4374 E-mail: Cindy.Cashen@alaska.gov

Necessary Partners:

- Governor's Alaska Highway Safety Office.
- DOT&PF Headquarters and Regional Offices.
- Legislature.
- Media.
- AG's Office.
- State Troopers/Local Police.
- National Insurance Institute.
- NHTSA.

Data Analysis Needs or Available Resources:

Create a statewide map of head-on collisions, insurance report, photos, past country/state success stories.

Expected Effectiveness/Outcome:

Narrative: To eliminate fatal and major injury crashes – estimate number yet to be determined.

Average number of lives lost and major injuries sustained due to this problem over the past five years: Approximately 15 per year.

Estimated number of lives saved and major injuries prevented in one year following implementation: One.

Funding and Resource Requirements:

Narrative: Funding for AHSO to cover legal costs – approximately $10K. If signs are posted, approximately $1,000 per sign.

Estimated Cost to Implement: $ TBD

Action Steps and Timeline:

Action Step	Responsible Agency	Timeline/Due Date
Collect data and success stories in a draft packet for the legislature.	AHSO	December 2007
Collaborate with partners to develop a legislative information/ lobby plan.	AHSO	December 2007
Pass Legislation.	Legislature	May 2008
If successful, install signs in high-crash areas. (This could happen earlier.)		

Measurement and Evaluation:

Strategy Performance Measures: Reduction in head-on collisions.

Evaluation:

Reduction in head-on collisions as indicated by before/after crash studies.

U.S. Department
of Transportation
National Highway
Traffic Safety
Administration

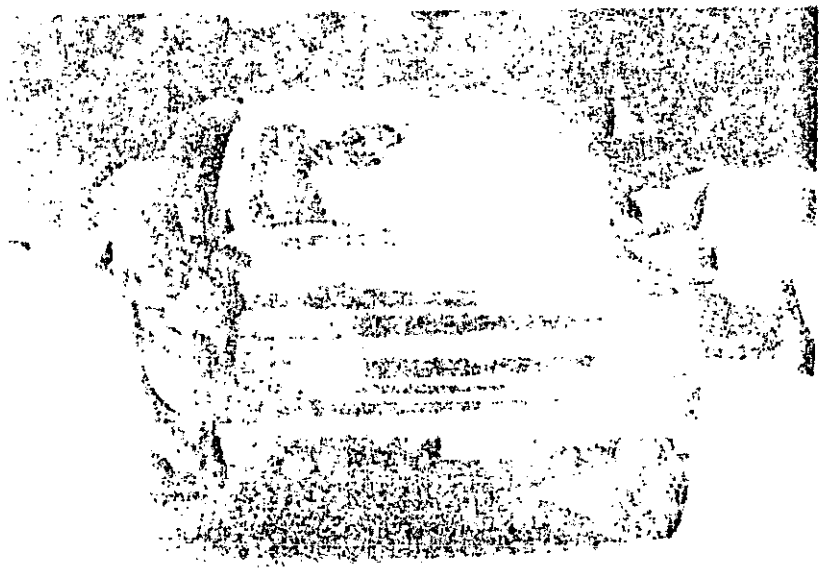
NHTSA
People Saving People

DOT HS 809 760

September 2004

Technical Report

An Assessment of the Crash-Reducing Effectiveness of Passenger Vehicle Daytime Running Lamps (DRLs)



Published By:
NCSA
National Center for Statistics and Analysis
Advanced Research and Analysis

Executive Summary

This study estimates the effectiveness of passenger vehicle daytime running lights in reducing two-vehicle opposite direction crashes, pedestrian/bicycle crashes, and motorcycle crashes. The authors chose the generalized simple odds, a conventional statistical technique, to analyze the data. The generalized odds ratio attempts to adjust for a variety of exogenous factors other than the presence or absence of DRLs not specifically controlled for within the model.

Significant results of this study show that from 1995 to 2001:

Simple Odds Results:

- DRLs reduced opposite direction daytime fatal crashes by 5 percent.
- DRLs reduced opposite direction/angle daytime non-fatal crashes by 5 percent.
- DRLs reduced non-motorists, pedestrians and cyclists, daytime fatalities in single-vehicle crashes by 12 percent.
- DRLs reduced daytime opposite direction fatal crashes of a passenger vehicle with a motorcycle by 23 percent.

The reviewers of this paper required the inclusion of an analysis based on odds ratio, which can be found in Appendix B. Like the simple odds, the odds ratio attempts to control for a variety of factors other than the presence or absence of DRLs. The estimated effectiveness of DRLs based on this technique is extremely sensitive to small changes encountered in real world crash data. As a result, reductions in target crashes during the daytime using the odds ratio technique may not be detected over the inherent background noise of the data system. **None** of the results based on the odds ratio are statistically significant.

Odds Ratio Results:

- DRLs reduced opposite direction daytime fatal crashes by –6.3 percent that is DRLs increase opposite direction daytime fatal crashes by 6.3 percent.
- DRLs reduced opposite direction/angle daytime non-fatal crashes by –7.9 percent that is DRLs increase opposite direction/angle daytime non-fatal crashes by 7.9 percent.
- DRLs reduced non-motorists, pedestrians and cyclists, daytime fatalities in single-vehicle crashes by 3.8 percent.
- DRLs reduced daytime opposite direction fatal crashes of a passenger vehicle with a motorcycle by 26 percent.

Table 1: State Requirements for Headlight Use When Operating Passenger Vehicles

State	Headlights Must Be Used				Minimum Sight Distance Before Headlight Use is Mandatory (in feet)
	Half Hour After Sunset and Half Hour Before Sunrise	From Sunset to Sunrise	When Windshield Wipers are Operating	During Inclement Weather	
Alabama		x	x		500
Alaska [a]					1,000
Arizona		x			500
Arkansas	x		x		500
California	x				1,000
Colorado		x			1,000
Connecticut	x			x	1,000
Delaware		x	x		1,000
District of Columbia [b]					500
Florida		x		x	1,000
Georgia	x			x	500
Hawaii	x				200
Idaho	x				500
Illinois		x	x		1,000
Indiana		x			500
Iowa		x		x	500
Kansas		x			1,000
Kentucky	x				350
Louisiana		x	x	x	500
Maine	x		x	x	1,000
Maryland	x		x		1,000
Massachusetts	x		x		200
Michigan	x				500
Minnesota		x		x	500
Mississippi		x			500
Missouri	x				500
Montana	x			x	500
Nebraska	x				500
Nevada	x				1,000
New Hampshire	x			x	1,000
New Jersey	x		x	x	500
New Mexico	x				500
New York	x		x	x	1,000
North Carolina		x	x		400
North Dakota		x		x	1,000
Ohio	x				1,000
Oklahoma	x			x	500
Oregon		x			1,000
Pennsylvania		x		x	1,000
Rhode Island		x	x	x	500
South Carolina	x		x		500
South Dakota	x				200
Tennessee		x		x	200
Texas	x				1,000
Utah	x			x	1,000
Vermont	x			x	150
Virginia		x	x		500
Washington	x				1,000
West Virginia		x		x	500
Wisconsin	x				350
Wyoming	x			x	1,000

Notes:
(a) Headlights are required at all times on designated roadways with speeds in excess of 45 miles per hour.
(b) We could not locate time of day usage requirements for the District of Columbia.

Sources: *Digest of Motor Laws*, American Automobile Association, 2005, and Matt Sundeen, Program Principal, Transportation, National Conference of State Legislatures, (303) 364-7700.

Information from Kurt Smith, Department of Transportation

1. 13 AAC 04.010 became effective in April 1994. It authorized the department to install Headlights On At All Times signs.
2. HOAAT signs were posted on the Seward Highway from Seward to Anchorage mid summer 1994.
3. DPS claimed the signs were very effective in saving lives (16 fatalities during 1991-1993, none in 2004). They asked that the rest of our major highways be signed accordingly.
4. The department worked to install the signs (500 signs at an approximate cost of $250,000). Many signs were installed by late 1995.
5. The DOT&PF Commissioner, under direction from the governor, issued a stop work notice in late 1995 due to adverse public opinion. The signs were taken down, except for the signs on the Seward Highway.
6. It is hard to tell the long term safety impact of the Headlights On signs, because their installation coincided with some major passing lane and reconstruction projects on the Seward Highway. **However, there was a marked decrease in numbers of crashes around that time. As I recall, severe crashes did not decrease that markedly.**
7. **Windshield "surveys" have indicated that a higher percentage of vehicles have their lights on on the Seward Highway than on other roads.**

Information from the Insurance Institute for Highway Safety

1 | What are the safety advantages of DRLs?

Daytime running lights (DRLs) are a low-cost method to reduce crashes. They are especially effective in preventing daytime head-on and front-corner collisions by increasing vehicle conspicuity and making it easier to detect approaching vehicles from farther away.

2 | Where are DRLs required?

Laws in Canada and many European countries require vehicles to operate with lights on during the daytime. There are two types of laws. Canada's requires vehicles to be equipped with DRLs. Laws in Europe require motorists to turn on their headlights if their vehicles do not have automatic DRLs. In 1972, Finland mandated daytime running lights in winter on rural roads and a decade later made DRLs mandatory year-round. Sweden's law took effect in 1977, Norway's in 1986, Iceland's in 1988, and Denmark's in 1990. Hungary has required drivers on rural roads to operate with vehicle lights on since 1993. Canada requires DRLs for vehicles made after December 1, 1989. No US state mandates DRLs, but some require drivers to operate vehicles with lights on in bad weather.

3 | Are DRLs available on vehicles in the United States?

First offered on a handful of 1995 domestic and foreign model passenger cars, pickups, and SUVs, daytime running lights have become a more common feature. They are standard on all General Motors, Lexus, Mercedes Benz, Saab, Subaru, Suzuki, Volkswagen, and Volvo models. Other manufacturers also offer daytime running lights on certain models. GM offers retrofit kits for vehicles that do not already have DRLs. The kits can be used on non-GM models, too.

4 | How effective are DRLs?

Nearly all published reports indicate DRLs reduce multiple-vehicle daytime crashes. Evidence about DRL effects on crashes comes from studies conducted in Scandinavia, Canada, and the United States. A study examining the effect of Norway's DRL law from 1980 to 1990 found a 10 percent decline in daytime multiple-vehicle crashes.[1] A Danish study reported a 7 percent reduction in DRL-relevant crashes in the first 15 months after DRL use was required and a 37 percent decline in left-turn crashes.[2] In a second study covering 2 years and 9 months of Denmark's law, there was a 6 percent reduction in daytime multiple-vehicle crashes and a 34 percent reduction in left-turn crashes.[3] A 1994 Transport Canada study comparing 1990 model year vehicles with DRLs to 1989 vehicles without them found that DRLs reduced relevant daytime multiple-vehicle crashes by 11 percent.[4]

In the United States, a 1985 Institute study determined that commercial fleet passenger vehicles modified to operate with DRLs were involved in 7 percent fewer daytime multiple-vehicle crashes than similar vehicles without DRLs.[5] A small-scale fleet study conducted in the 1960s found an 18 percent lower daytime multiple-vehicle crash rate for DRL-equipped vehicles.[6] Multiple-vehicle daytime crashes account for about half of all police-reported crashes in the United States. A 2002 Institute study reported a 3 percent decline in daytime multiple-vehicle crash risk in nine US states concurrent with the introduction of DRLs.[7] Federal researchers, using data collected nationwide, concluded that there was a 5 percent decline in daytime, two-vehicle, opposite-direction crashes and a 12 percent decline in fatal crashes with pedestrians and bicyclists.[8]

5 | Will DRLs shorten headlamp bulb life or lower fuel economy?

Running vehicle lights in the daytime does not significantly shorten bulb life. Systems like those on General Motors cars that use high beams are designed to operate at half their normal power during daylight hours, thereby conserving energy and reducing the effect on a vehicle's fuel economy. The National Highway Traffic Safety Administration (NHTSA) estimates that only a fraction of a mile per gallon will be lost, depending on the type of system used. GM estimates the cost to be about $3 per year for the average driver. Transport Canada estimates the extra annual fuel and bulb replacement costs to be $3-15 for systems using reduced-intensity headlights or other low-intensity lights and more than $40 a year for DRL systems using regular low-beam headlights.

6 | Will motorists be bothered by glare?

In most countries mandating DRLs, glare has not been an issue. However, some motorists in the United States have complained that the systems here are too bright. In response to these complaints, NHTSA in 1998 proposed reducing the maximum allowable light intensity from 7,000 to 1,500 candela, a value more in line with European DRLs. There has been no action on this proposal as yet.

7 | Are motorcycles required to have DRLs?

Federal law does not require motorcycles to have DRLs, but some states require motorcyclists to ride with their headlights on at all hours. Thus, since 1979 most manufacturers have equipped their cycles with automatic-on headlamps.

List of witnesses testifying to Senate Bill 73

In person:
Cindy Cashen- Administrator, Alaska Highway Safety Office

Lt. Rodney Dial, Alaska State Troopers (unclear at this point whether Lt. Dial's testimony will be in-person or by phone)

Senator Linda Menard

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Alaska State Legislature

To: Senator Hollis French, Chair
Senate Judiciary Committee

From: Senator Linda Menard

Date: March 11, 2009

Re: Request for hearing of SB 73

Honorable Senator Hollis French,

I respectfully request a hearing of Senate Bill No. 73 before the Senate Judiciary Committee.

Senate Bill 73 seeks to require the use of headlights at all times while operating a motor vehicle in the state of Alaska.

Thank you for your consideration.

Linda Menard