ALASKA LEGISLATURE COMMITTEE FILES 1993-1994 8672
8499 SENATE TRANSPORTATION

SB

110

February 16, 1993

Honorable Burt Sharp
State House of Senate
State Capital Building
Juneau, AK 99801

FEB 10 1993

SUBJECT: Senate Bill 110
Act of requiring the use of Motorcycle
Helmet when operating or riding on a Motorcycle.

Dear Sir:

I hope you find the attached information useful in making an informed decision about the use of Helmets. There is more information available but I felt important to get something down to you as soon as possible. Even though this information pertains to the use of Helmets, I also have a problem with the State of Alaska giving into Financial Blackmail from the Federal Government. What are the people of Alaska worth? 1.5 percent? I think not!

Just because California and Texas do something should Alaska follow? I am not a sheep who blindly follows. The State of Alaska should consider legislation based on our needs and should not be pressured by the Federal Government to pass laws that we do not deem necessary.

I hope you will consider all sides of this issue and not just the financial side. If I can be of any help please feel free to call me anytime, Days (907) 776-7676, Evenings (907) 283-4481.

Respectfully,

Scott D. Hamann, President
Kenai Peninsula ABATE
Alaska Bikers Advocating Training and Education

EFFECTIVE
January 1, 1989

1966 Georgia adopts nation's first helmet law. Later, U.S. Dept. of Transportation threatens to withhold millions of dollars in highway funds from states failing to enact mandatory helmet laws. By 1969, 41 states comply with the federal mandate.

1969 Illinois repeals the helmet law as unconstitutional.

1975 47 states have helmet laws. DOT initiates proceedings against CA, UT and IL to deny funds, due to noncompliance.

1976 Congress revokes DOT authority to impose fiscal sanctions against non helmet law states. By 1977, 23 states repeal or amend their laws.

1982 Louisiana reinstates a compulsory helmet law.

1983 With Wyoming amending their law to under 18, only 19 states retain a full mandatory helmet law.

1988 Helmet laws pass in Oregon (by referendum) and Nebraska, the 2nd and 3rd states to approve helmet legislation since 1976 as opposed to 29 states that have repealed the law or amended it to exclude most adults.

This Helmet Fact Card
compliments of

POCKET GUIDE TO

HELMET FACTS©

courtesy of

RUSS BROWN

ATTORNEY FOR MOTORCYCLISTS

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HELMET LAW FACTS

- Of the top twelve states with the best motorcycle safety records (fatalities per 10,000 registrations), only one has a helmet law. On the other hand, fully half of the dozen states with the worst safety records are helmet law states.
  Motorcycle Safety Foundation, 1986
- Relative to the number of registered motorcycles, states with mandatory helmet laws had 14.5% more accidents and 1.58% more fatalities than free-choice states for the 11 year period 1977-87.
  Accident and Fatality Statistics, analyzed by Dr. A.R. MacKenzie
- The *National Safety Council* found no significant difference in the ratio of fatalities per 100 motorcycle accidents for the two time periods 1949-1966 (pre-helmet law years) and 1967-1975 (a period when nearly every state enforced a helmet law).
- 29.4% of the motorcyclists that died wearing a helmet died of a head injury. 28.9% of the motorcyclists that died without a helmet died of a head injury.
  Wisconsin Dept. of Transportation 1978 Division of Motor Vehicles study
- "It is a rare instance where a helmet makes a difference in as far as a motorcycle accident is concerned. Most injuries are chest and abdominal or extremity related."
  Dr. John Lowe, Trauma Specialist
- A *State of Kansas Health & Environment Dept.* report found no evidence of increased motorcycle fatalities resulting from a repeal of helmet regulations.
- There is no evidence that any helmet thus far, regardless of cost or design, is capable of rejecting impact stress above 13 miles per hour.
  U.S. Department of Transportation
- *USDOT News* reported in October 1972 that 90% of the helmets tested off the shelves failed to meet minimum standards.
- According to *Bell Helmets Dealers Guide* (1986)..."an incorrectly fitted helmet can do more damage than no helmet at all."...and that people will usually buy a helmet that fits too loose as it is more comfortable.
- *The American College of Surgeons* declared in 1980 that improper helmet removal from injured persons may cause paralysis.
- Serious and/or fatal neck injuries increased 75% in *New York State* the first year of mandatory helmet regulation and fatalities increased 340% in *New Jersey* the first year of helmet law.
  New York and New Jersey Highway Department
- *Rhode Island* had a 166.7% increase in bike related fatalities after putting its 1971 helmet law into effect.
- Wearing a helmet can induce a false sense of security, leading to excessive risk-taking and dangerous riding habits.
- *National Highway Traffic Safety Administration* admits that motorcycle accidents make up only 1/10th of 1% of all medical expenses.
- Motorcyclists voluntarily wear helmets over 50% of the time, while auto drivers use seatbelts only 20-47% of the time. Even with seatbelt laws in effect, the *N.H.T.S.A. annual statistics* up to and including 1986 show that approximately 50% of all auto fatalities are due to head injury. Yet no one would suggest that auto drivers should wear helmets.
- The rate of head injuries to non-helmeted riders (24.9% of total fatal & non-fatal injuries by body location) is less than the rate of head injuries for unrestrained auto drivers (39.6%). Moreover, in terms of sheer numbers, there are over 10 times more auto fatalities attributed to head injuries than for motorcyclists.
- 72% of all car-motorcycle accidents are the result of negligent operation of the automobile.
  National Safety Council
- A helmet cannot prevent an accident.
- 45.5% of motorcyclists involved in accidents had no motorcycle license, 92% had no formal training and more than half had less than 6 months experience. 61% of the accidents and 50% of the fatalities involved riders between the ages of 17-26.
  Hurt Report, Traffic Safety Center of USC
- A series of scientific studies by engineer *D.R. Fisher* concluded: Helmets increase the temperature of the wearer's head more than 3 times as much as a wool cap and trap two-thirds of the head's heat without allowing it to dissipate; Helmets reduce side vision an average of 41 degrees, representing a 16% impairment to the normal field of vision; sound attenuation represents an impairment in the ability of the rider to perceive or discriminate warning or other useful sounds that will decrease the risk of being involved in an accident.
- "Helmet interior temperatures tend to stabilize at or near body temperature..." so, even if it is 80 degrees outside, your head will be encased at around 98.6 degrees F.
  Road Rider, Sept. 1987
- When applying the law of inertia, the weight of an object becomes awesome. A 4-pound helmet at 50 mph becomes 200 pounds upon impact.
- Reflecting the economic impact of helmet laws, motorcycle registrations in *Louisiana* dropped 15.2% in 1983 (the year following their helmet law) and the number of franchised dealerships fell 7%. New motorcycle sales were down 6.6% even though nationwide sales increased 10.6%. Source: *Motorcycle Industry Council, Motorcycle Safety Foundation and R.L. Polk.*
- Helmet Laws vs. Motorcycle Ownership: Regarding market penetration (percentage of the population that owns motorcycles), just one of the top 10 states with the highest degree of ownership has a helmet law, but 7 of the 10 states with the lowest percentage of riders have helmet laws.
  Motorcycle Industry Council, 1988
- In 1987, when the California Legislature considered a mandatory helmet law, the *Senate Transportation Committee* received in excess of 20,000 letters, petitions and phone calls expressing opposition to the bill, and only 75 letters/calls supporting it.
- Education, not legislation, is the key to safer motorcycling. Not everyone has the ability to ride a motorcycle, and certainly not without proper training. All the safety equipment in the world cannot protect the inept, unskilled rider.

For additional FREE copies of this Helmet Facts card, call 1-800-4-BIKERS. Quantities are available for groups and businesses.

Of the top 12 states with best motorcycle safety records, only 1 has a helmet law. On the other hand fully half dozen states with the worst safety records have helmet laws.

Motorcycle Safety Foundation

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ECONOMIC IMPACT OF HELMET LAW

Bike registrations in Louisianna dropped 15.2% in '83 (the year following the dreaded helmet law) and the number of franchised dealerships fell 7%. New bike sales were down 6.6% even though nation wide sales increased 10.6%

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Motorcycle Safety Foundation
and R.L. Polk

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Relative to the number of registered motorcycles, states with mandatory helmet laws had 14.5% more accidents and 1.58% more fatalities than Free Choice states from 1977-1978

Accident & Fatality Statistics
by Dr. A.R. Mackenzie

The Federal Department of Transportation has admitted that no helmet on the market can reject impact stress above 12mph.

Serious and/or fatal neck injuries increased 75% in NY State after the 1st yr of mandatory helmet law.

Fatalities increased 340% in NJ the 1st year of the helmet law.

New Jersey Highway Dept.

1971
Oct.: Ed Armstrong exposes the manipulations of statistics used to justify helmet laws, and shows that the statistics actually prove that helmets increase accidents and fatalities.

U.S. DOT News reported in October 1972 that 90% of helmets tested off the shelves failed to meet minimum safety standards.

In July '80 American College of Surgeons Committee warned that improperly taking a helmet off an injured person could cause perm. paralysis.

It is a rare difference where a helmet makes a difference in as far as a bike accident is concerned. Most injuries are chest and abdominal or extremity related.

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Trauma Specialist

LET THOSE WHO RIDE DECIDE

Education not Legislation is the key to safer motorcycling. All the safety equipment in the world can't protect the inept unskilled rider.

A series of scientific studies by Engineer D.R. Fisher concluded:

1.) Helmets increase the temp of the wearer's head more than 3 times as much as a wool cap and trap 2/3 of the heads heat without allowing it to dissipate.

2.) Helmets reduce side vision an average of 41°, representing a 16% impairment to the normal field of vision.

3.) Sound blockage of the helmet represents an impairment in the ability of the rider to perceive or discriminate warning or other useful sounds that will decrease the risk of being involved in an accident.

4.) Recent studies show that wearing a helmet causes wind turbulence that is damaging to the riders hearing. (We'll let you know more on this as we become aware of information)

STUDY SHOWS: HELMETS CAN "UNPLUG" BRAINS

A group of surgeons in Adelaide, Australia, has recently concluded a four-year study on helmets and has come to the conclusion that instead of preventing fatal injuries in motorcycle accidents, rigid, full-face helmets (the ones common in this country) can actually be the cause of death.

In what it describes as a world breakthrough, the Austrailian Crano-Facial Unit has discovered how helmets can cause the brain stem to be severed in impacts, leading to instant death. One researcher, Dr. Rodney Cooter, pointed out that while these helmets protected the face, they simultaneously transferred the force of impact through the chin strap into the jaw bone and then into the brain.

Says Dr. Cooter, "It's a lot like unplugging the brain. Victims of a judicial hanging can suffer the same injury." He and his team devised a special system of CAT scanning the helmets of crash test victims and examined the skulls of the dead as well as the survivors.

Dr. Cooter said helmets had been traditionally designed by phsicists and engineers whose main aim was to prevent damage to the front of the face, which ironically is the part of the head most capable of absorbing the impact of a collision.

---From The West Australian

FATAL FACTS ABOUT HELMETS

A Neurosurgeon Speaks The Truth

Editor's Note: The following article demonstrates one of several deadly side effects of helmet use. Although Dr. Cooter recommends limited helmet use, his arguments directly relate to our Freedom F.I.G.H.T. program attack. If you need more information on how we plan to use this report to eliminate mandatory helmet laws and save lives, see pages 28 and 29.

During World War II, an English neurosurgeon named Cairns compared the head injuries of crashed motorcyclists wearing helmets with those not wearing helmets. Cairns, a Professor of Neurosurgery at Oxford University, noted that helmeted motorcyclists who had broken their facial bones had less serious brain injuries. Clearly, some impact energy had been absorbed by the face or the helmet. From those early studies, the suggestion came that all motorcyclists should wear a helmet.

The only types available then were "inverted pudding bowl" styles that barely covered the short hair style of the day. These had an inner lining of cork or pulp that was used to absorb energy. During the 1960s, the fighter pilot style became popular because it covered the whole scalp, came in colorful fiberglass shells, and had better energy absorption material inside. Gradually helmet standards arose to ensure that helmets were constructed to a standard level that assured adequate impact performance in controlled helmet impact tests.

During the 1970s, full-face helmets (fighter pilot style plus facial protection) gained popularity. Manufacturers argued that if the fighter pilot style helmet had a chin bar, then the whole head and face could be protected. But this presented the helmet standards committees with a dilemma: How to test the performance of the chin bar component when no one was sure about how far it should deflect in an impact? Some said the chin bar should be soft and pliable. Others said it should be hard and inflexible. The rigid school won, and efforts were made to stiffen the chin bar by incorporating strong materials to increase its rigidity.

Early medical reports of facial injury patterns in motorcyclists supported the use of full-face helmets because hospital accident and emergency departments were treating far fewer facial cuts and abrasions among bikers wearing full facial protection. Indeed, it became rare to see an injured motorcyclist with a facial bone fracture if he wore a full-face helmet. All was well for motorcyclists who came to hospitals for treatment after a crash that involved a head impact.

Many died in helmets that fitted well, were well adjusted, and were firmly in place at the time of the crash

But what about that ever-growing band of motorcyclists who didn't make it to the hospital? Many died in helmets that fitted well, were well adjusted, and were firmly in place at the time of the crash. Of course, some of these had fatal chest and abdominal injuries, but too many seemed to be dying from impacts they should have survived.

During the 1980s, reports from road accident research units worldwide showed an increasing incidence of a particular fatal skull injury among motorcyclists wearing full-face helmets. This common fatal injury was a skull base fracture—a severe crack across the bones on which the brain sits. To try to explain how these devastating injuries were happening, some associates and I looked in depth at a small number of motorcyclists who had been fatally injured while wearing full-face helmets. At this time, the latest X-ray equipment available for patients with head injuries was computerized CT scanning (CAT scanning). CAT scans could be converted into three-dimensional images to help plan the surgery that crash victims often required. Using CAT scanning techniques, we compared the patterns of injury among 50 motorcyclists admitted to hospitals with 24 motorcyclists killed from similar impacts during the same period. We retrieved the helmets worn and also studied them with the CAT scanner.

Each motorcyclist's head was considered as a four-layered unit: 1) the helmet, 2) the scalp and facial skin, 3) the skull and facial bones, and 4) the brain. Detailed scientific information was gleaned from each of these layers. That information was then fed into a computer-based coding system for analysis. In addition to the CAT scan information, a detailed autopsy was performed on the fatally injured group. An independent neuropathology review was also performed on the brain of each motorcyclist killed.

When analyzed, our results showed that motorcyclists with broken facial bones usually had been wearing helmets that gave little or no facial protection. Furthermore, they had little in the way of brain injury. In contrast, those motorcyclists killed outright often had no facial injury, even if they suffered an impact to the front of the helmet. They did, however, have skull base fractures and unsurvivable brain injuries. Apparently, the blow to the chin bar had been transmitted to the chin strap, increasing its tightness sufficiently to drive the lower jaw

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upward into the base of the skull. The upward force into the skull base, then, may have caused the fracturing and subsequent brain damage.

The brain damage was concentrated at the critical brain stem region where the spinal cord effectively "plugs into" the base of the brain. Damage in that region is usually instantly fatal.

Were our findings only present by chance in the sample of motorcyclists we studied? To find out, we performed a second study of 988 brains from autopsies performed on road accident victims. These 988 included 36 cases of unequivocal brain stem injury. The proportion of motorcyclists in that series was double the expected figure, and of the 15 motorcyclists, 13 were known to have been wearing helmets at impact and 11 had been wearing full-face helmets. Furthermore, the principal impact point was the chin bar in nine of the bikers.

These findings strengthened the possibility that a blow to a rigid chin bar could be transferred via the chin strap to the lower jaw and then to the skull base, with fatal consequences to the fragile brain stem. If this were so, then how could it be prevented? In collaboration with engineering scientists and computer-aided-design (CAD) experts, we devised a series of solutions. Essentially, they involve the incorporation of an energy absorber into the chin bar of a full-face helmet. This would reduce the impact energy transmitted to the brain stem and, hopefully, transfer a potentially fatal impact victim into the survivable range. The wheels of change in altering safety designs move excru atingly slow, but the full-face helmet with a soft, pliable chin bar extensio may be a suitable alternative.

Let's face it: A motorcyclist's helm should be worthy of the head upon which it rests.

—Rodney D. Cooter, M

Dr. Rodney Cooter is currently the Staff Grad Plastic Surgery at St. James University Hospital, Leeds, United Kingdom. He trained for five years the Weapon's Research Establishment in South Australia before completing a four-year training i engineering draftsmanship with Telecom Austral He studied medicine at the University of Adelaid six years before commencing surgical training. I his surgical training with the Australian Craniofa Unit, he developed an interest in the engineerin aspects of injury to the head and face. In his do thesis—*Craniofacial Fracture Patterns*—he exa the effects of helmets on injury patterns. This a follows that intensive study.

HOW HELMETS CAN KILL

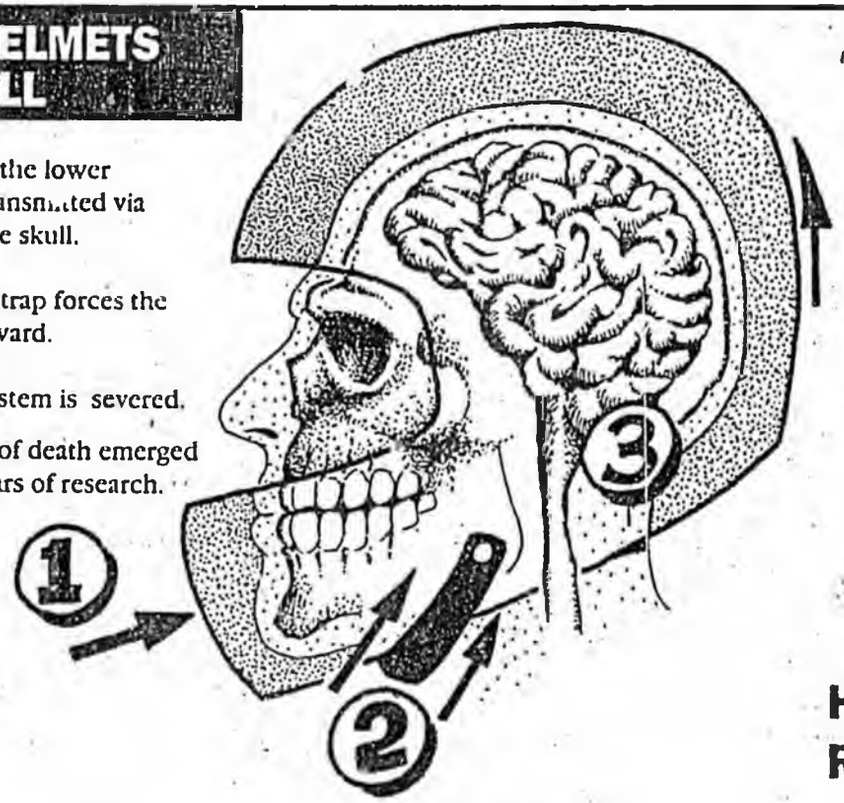
Illustration: Jon Towle

1. Impact to the lower face bar is transmitted via the jaw to the skull.

2. The chin strap forces the jawbone upward.

3. The brain stem is severed.

This pattern of death emerged after four years of research.



Lane dividers go underground

State says grooves no hazard to bikes

Bumps in the highway may be a thing of the past, for California has begun experimenting with *recessed* pavement markers as an alternative to the traditional raised reflectors often used to separate freeway lanes.

Though it would seem that the new markers, set into a four-inch wide by 24-inch-long by 9/16-inch-deep groove hacked out of the roadbed, would offer a severe hazard to bikers, the California Department of Transportation says that controlled tests show that the "recessed markers are more desirable than raised pavement markers."

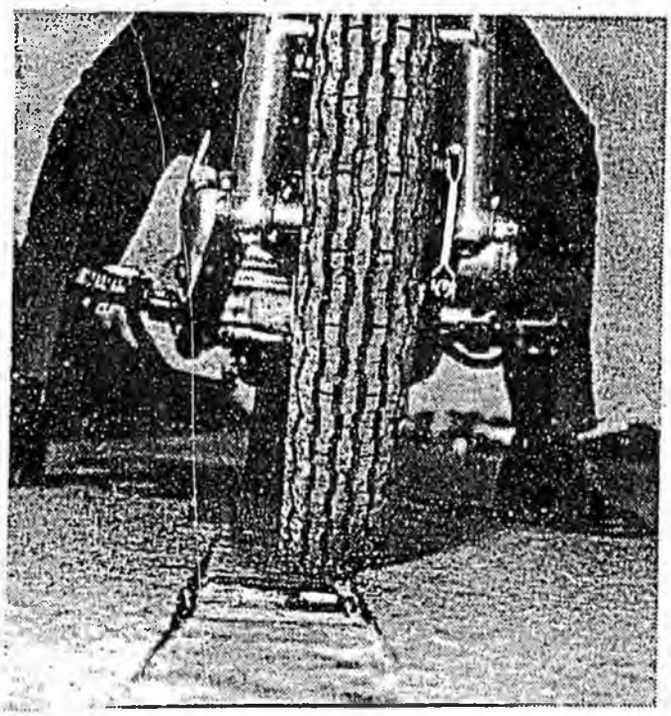
In tests conducted at the California Highway Patrol Academy, experienced riders — mostly motorcycle cops and instructors — rode a variety of sizes and weights over a series of six recessed markers at speeds of five to seventy miles per hour. Weaving passes over the markers were tried, as was driving over them with underinflated tires.

According to the Caltrans report on the tests, "The riders tried to find any situation where noticeable negative handling would occur, such as riding down the centerline to place the tires fully into the groove, riding on the groove edges, riding in circles so that one reflector was repeatedly encountered at low leaning angles, and panic stops that included rear-wheel lockup."

After completion of the tests on dry pavement, the whole drill was repeated with the test section watered down sufficiently to fill the grooves and leave the road surface wet.

"Regardless of motorcycle size, tire size, general tread pattern, angle of encounter, lean angle, or speed, the recessed markers produced only a slight bump," Caltrans concluded. Even when the pavement was wet, there was no squirming or any kind of directional instability. . . "The motorcyclists involved all believed that the recessed markers are less dangerous than raised markers."

Caltrans officials believe the recessed markers will last substantially longer and require less maintenance than the current raised markers.



In Australia, 98 Victims Out Of 100 Wore Helmets

Twenty-two percent of people killed on Queensland roads so far this year have been on motorcycles.

This is a 7-percent rise from last year when 87 motorcyclists were among the 555 road victims for the year. Police said only two of the victims this year were not wearing crash helmets.

There have been 100 people killed on our roads so far this year — 12 more than for the same period last year. Of the 100, 20 were motorcycle riders and 2 were pillion passengers.

The statistics showed that 16 of the 22 were under the age of 23.

The Assistant Police Commissioner (Traffic), Mr. Jim Purcell, said he was disappointed. "Many young motorcyclists seem to be unaware of the power generated by their machines. They do not seem to have the experience to control their machines safely in an emergency," he said.

Acting head of the Metropolitan Traffic Branch, Insp. Cec Horne, said, "There has been an increase in the number of motorcycles on our roads because of the petrol price rises.

"More people are using motorcycles because they find they are economical transport.

"This means there are more inexperienced motorcycle riders on our roads. Unfortunately, some of them are learning some bad riding habits.

"Motorcyclists have been seen riding too close to vehicles in front of them and in the 'blind spot,' where a car driver cannot see them in his rear-vision mirror.

"Traffic police also have noticed that some inexperienced motorcyclists ride to one side of a lane. They believe that by doing this they can swerve around the vehicle in front of them if it stops suddenly.

"This is a very bad habit. The rider fails to realize that if the vehicle in front turns, swerves or stops suddenly, he will run into it. And, because he is riding to one side of the lane, he gets into the driver's blind spot.

"We have also found that motorcyclists are getting into trouble on wet days by riding too close to vehicles. In wet weather, drivers wind up their windows and cannot hear a motorcycle coming up behind them," Insp. Horne said.

The Transport Minister and Queensland Road Safety Council chairman, Mr. Don Lane, said, "The statistics paint an alarming picture."

Mr. Lane said the Queensland Road Safety Council was conducting a safe-driving course for motorcyclists. He urged riders to attend. — from *The Courier-Mail*, Brisbane, Australia.

Good reasons to abolish lid laws
(Try 'em on your legislators for size)

A couple of times every year, we try to gather together in one place some of the major arguments against mandatory helmet laws. This particular list was generated by Bipartisans Against Discriminatory Legislation (B.A.D.L.), a small-but-determined bikers' rights group out of Northern California. For information on joining, write to B.A.D.L., 20175 Ricardo Ave., Hayward, CA 94541.

— Statistics verified by the AMA and the MSF show that Iowa, Wisconsin, South Dakota, and Kansas are the four safest states to ride in. None of them mandates helmets for adults.

— The federal Department of Transporation has admitted that no helmet on the market can reject impact stress above 12mph.

— In one DOT study, 90 percent of all helmets failed to meet even that 13mph standard.

— A study by the University of Utah Speech and Hearing Clinic found that helmets can confuse and disorient riders by restricting hearing and distorting sound direction.

— In July, 1980, the American College of Surgeons Committee on Trauma warned that improperly taking a helmet off an injured person could cause permanent paralysis.

— Dr. D.M. Kuland of Rhode Island Hospital has reported that *concussions without fractures* can be caused by helmets. These can lead to massive internal head swelling and paralysis or even death.

— Rhode Island had a 166.7 percent *increase* in motorcycle-related fatalities after putting a mandatory helmet law into effect.

— Cage drivers and passengers, even those wearing seat belts, suffer a far greater number of head injuries than motorcyclists, yet no one is suggesting they wear helmets.

— Neck injuries and fatalities in New York state jumped 75 percent the year the state's helmet law went into effect.

— In New Jersey, motorcycle deaths soared 340 percent *after* a helmet law was passed.

— Temperatures can reach 130 inside a full-coverage helmet. Heat-related factors contributing to accidents and deaths include fatigue, nausea, lightheadedness, blurred vision, loss of visual perception, and fainting.

— California Highway Patrol statistics show that motorcyclists voluntarily use helmets 50 percent of the time, auto drivers voluntarily use seat belts 20 percent of the time, and auto drivers in seat belt-law states use belts 47 percent of the time.

— A study by the Utah Highway Safety Department showed that helmet usage does not significantly affect the severity of head injuries.

— The Kansas Department of Health and Environment reported that it could find no evidence of increased motorcycle fatalities after repeal of the Kansas helmet law.

— Testing at the University of Technology in Sothenburg, Sweden, established that helmets slide only two thousandths of an inch before grabbing. Such sudden stopping of the helmet twists the head and may cause the brain to move inside the skull, rupturing arteries and causing permanent brain damage.

Helmet Almost Electrocutes Man

Richard Blair, 40, of Arizona, was riding his motorcycle on U.S. 9 out of Phoenix when he was struck by lightning. The bolt ran up his leg, then leaped from his right shoulder to the metal chin strap clasp and entered his right ear, exploding the eardrum, then sizzling through a portion of his brain before escaping.

Richard spasmodically opened the throttle as he slumped unconscious against his son, Kvick, and took off down the highway. The bluish-white flash had burned a hole through the center of Richard's forehead as he rested against his son on the speeding motorcycle. Kvick groped for the handlebars for almost two miles before he was able to reach the clutch and finally bring the scooter to a halt.

When he reached the hospital, Richard's face was blue, he had no respiration, the hair on his arms was charred, and the tips of his shoes were blown off. He was in a coma for two days. In October of '87 he was still suffering from deafness, severe muscle pain, nerve damage, and short-term memory loss.

Lidless states rated safest in nation

Nationwide statistics gathered by the Motorcycle Safety Foundation show, astoundingly enough, that the four safest states to ride a bike in have no statewide mandatory helmet law for adults.

Averaging the number of accidents per 10,000 bike registrations, the number of fatal accidents per 10,000 registrations, and the number of deaths per 100 accidents, the MSF rated the states from most safe to least safe.

Topping the list were Iowa, no helmet law; Wisconsin, helmets required only for riders under 19; South Dakota, no helmet law; and Kansas, helmets required only for riders under 18, except within the city limits of some towns that require them for everyone.

One thing most of the safest states have in common is an aggressive motorcycle licensing program. Kansas, for example, uses a modified version of the MSF's Motorcycle Operator Skill Test, which is credited with reducing bike accidents by 15 percent in states that have adopted it.

In Kansas the driver is tested on shifting, turning, stopping control, and cone weaves. Recently, reacting to the fact that most bike accidents are caused by careless cagers turning in front of bikes, Kansas added two other elements to its test: a quick stop and an evasive swerve.

According to Kansas officials, riders proficient in these emergency maneuvers stand a far better chance of avoiding winding up with their bodies pasted to the pavement and their bikes planted in the back seat of some old lady's Plymouth.

Explaining their tough attitude toward licensing, one Kansas official said, "If you can't do the maneuver on an off-the-street course, on the bike you will be driving, then you shouldn't be driving on the street where you will face real-life situations you're not prepared to handle."

The good we do . . .

never remembered; the bad never forgotten

So-called "safety helmet" strangles cyclist to death

Many so-called motorcycle safety experts aren't going to like this story, but facts are facts.

Eugene J. Hannahoe, 22, of Stony Creek Mills, Pa., was found dead on his bike in a driveway about 3 a.m. recently, his left handlebar wedged underneath the back of his "safety" helmet.

According to Berks County Coroner Michael Feeney, Hannahoe must have been coasting into the driveway when he ducked to avoid a low-hanging tree branch. Feeney speculates that the rider lost his balance and, as he started to fall, caught his helmet on the handlebar, causing the lid's chin strap to strangle him to death.

Easynews

"If it's for the betterment of biking, we'll print it."

More Meat for Helmet Law Opposition

In the July issue of *Traffic Safety* magazine, Mr. Robert Parenti of the Utah Highway Safety Division has turned the spotlight on an on-going motorcycle study that may have farreaching effects on the future of helmet laws, as well as giving significant insight into the causes of motorcycle accidents.

In the study, conducted by Utah's Highway Safety Division, over 220 separate motorcycle accidents were put into a statistical format and analyzed by computer. The 220 accidents mentioned were chosen because of the availability of complete information about the crashes.

The study found that *motorcycle driving experience was the most significant factor involved in a cycling accident.* It was discovered that 85 per cent of the cyclists involved in crashes had less than five years experience in driving motorcycles. Perhaps even more significant was the fact that 52 per cent of the cyclists had less than two years riding experience.

It was also found that experience on the particular motorcycle driven by the cyclist was less than one year in over 75 per cent of the crashes.

Another discovery was that cyclists may have a better overall driving record than automobile drivers. Over 76 per cent of the cyclists had never had a mishap before, over 90 per cent had never had their license suspended, and over 98 per cent had never had a DWI conviction.

Helmet Findings. Possibly the most interesting finding of the analysis concerned the relationship of safety helmets and the severity of head injury. In the analysis, the helmet was investigated solely as a protective device that might affect the degree of head injury sustained in a motorcycle crash. Through a series of analytical procedures, "statistically verifiable" conclusions were reached that demonstrate that the helmet is not *significantly* (emphasis ours, Ed.) related to the severity of head injuries. This does not mean that the head is going to be injured with or without a helmet. It means that if you're going to get your skull crushed, a helmet may not prevent that crushing. If you wear that helmet, the chances of your head being injured are demonstrably reduced.

—from *Drivers' Magazine*

Helmets Make Noise

My biggest gripe about helmets is the noise they create. Tests made at the University of Utah (Mechanical & Industrial Engineering Dept.) show clearly that a helmet doesn't reduce sound levels any significant amount. In fact the wind whistling between the helmet's shell and the rider's head actually increases noise. It is true, I could put my helmet on and carry on a conversation with you, as long as I was standing still. At 55 mph the slipstream of wind passing the helmet creates a definite noise. Under OSHA standards you should ride just 21 minutes a day at that speed, less with a headwind, before you risk a 15% chance of permanent damage to your hearing. The test results generally agree with those of one done by the USDA Forest Equipment Development Center (Calif.) in 1974.
—from Carl Stock, Old Dominion Motorcycle Association, P.O. Box 138, Vienna, Va. 22180.

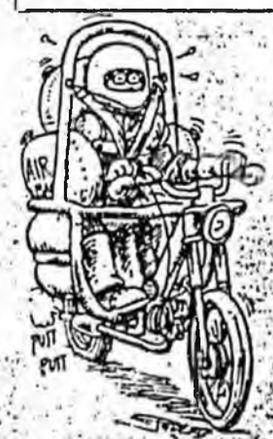
Full-face Helmets May Be Dangerous

England: Dr. Tom Ravensdale of Great Britain has come up with a whole 'nother helmet controversy. He fears motorcycle riders wearing full-face helmets may be gassing themselves with concentrated carbon dioxide from their own breath. Ravensdale claims to know of numerous accidents that have no apparent cause, but where the common denominator is a full-face helmet with visor down, sometimes aggravated by scarves or clothing around the neck, that may seal the base of the helmet.

Said Ravensdale, "In these accidents, the riders all had the visors down and just went slap into something, like the back of a parked vehicle."—from the AMA Government Report

Beware— Motorcycle Restraints

Ohio: "The Moped Report," by the Ohio Traffic Safety Education Center, recommends that both mopeds and motorcycles come equipped with an automatic restraint system, such as an air bag, higher seats to change the trajectory of the rider if a collision should occur, and energy-absorbing structures above the front wheel to soften the impact of the operator against the vehicle. The report also calls for the addition of a knee bar with an energy-absorbing structure as close as possible to the knee and lower leg to



improve the upward trajectory of the operator if a front-end collision with an auto occurs.—from the *International Motorcycle Trade Journal*

Easynews

"If it's for the betterment of biking, we'll print it."

Head Injuries With Helmets?

Sweden: A Swedish research team has carried out a series of experiments on three police helmets and discovered they could provide inadequate protection in the types of impact usually sustained in road accidents.

The British Standards Institution, which issues British safety kite marks, said it was giving the matter serious consideration.

In the majority of crashes, helmets strike the road at an oblique angle and this can make the brain spin in various layers, resulting in untreatable brain damage. However, BSI safety tests, which all helmets sold in Britain must pass, subject the helmet only to right-angle blows.

About 720 of the 1200 people killed in motorcycle accidents in 1977 died from head injuries even though they were wearing helmets.

Dr. Bertil Aldman, professor of Traffic Safety at the Chalmers University of Technology in Gothenburg, Sweden, tested three Everoak police helmets, subjecting them to 14 separate tests at speeds from 21 to 37 mph.

Even under the most favorable conditions at the lowest speed, the rotational forces produced by the impact were at a level likely to cause serious injury. In the severest test they were almost twice as bad.

The Swedish team stressed, however, that the helmets tested were no worse than others on the market.

"No one has designed a helmet for this type of test," he said. "I do not think better alternatives are available." —from ABATE of Michigan, Box 1032, Dearborn, Michigan 48121.

Beware Of Killer Helmets

Britain: The modern full-face helmet, as worn by over one million motorcyclists in Britain, could be a killer.

The orthopedic surgeon and chief medical officer for the British Motorcycle Racing Club, Mr. Gordon Hadfield, claims that many modern helmets are "designed to fulfill riders' desires to imitate their race track heroes and not to protect them in accidents.

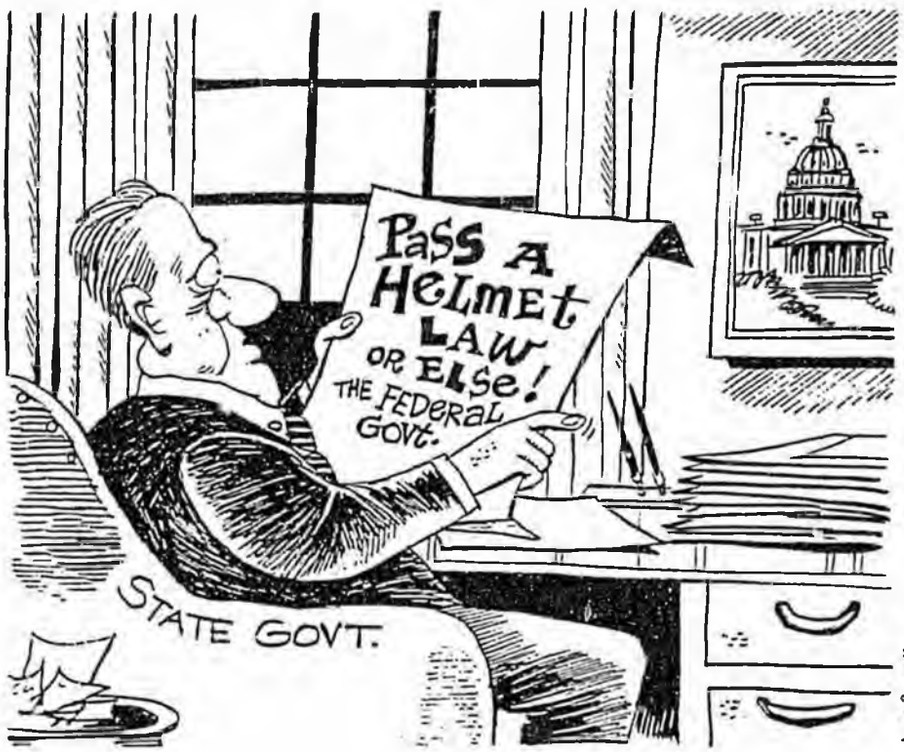
"These helmets are so heavy that they rotate the rider's head when he falls—causing him to break his neck."

And the bigger the helmet, the worse the rotating effect. At best, the weight tears the helmet off the rider's head on first impact, but in just one Surrey hospital in the past 18 months seven riders have been admitted dead—killed by their crash helmets.

Investigations revealed that the chin area of their helmets broke as they crashed, jagged pieces of fiberglass stabbed them in the jugular vein or carotid artery, and they bled to death.

Mr. Hadfield adds that the number of neck injuries among motorcyclists is higher than was previously thought, and that many riders, said to have died of head injuries, in fact were killed by high neck damage resulting from full-face helmets.

"Hard fiberglass or plastic bounces on impact in a crash, and the bounce has to be absorbed by the head and neck of the rider." —from ABATE of New York, Schenectady, New York 12309. ■



Jerry Barnell

STATES SAY NO TO BLACKMAIL

Lawmakers in three states now agree: The federal government has no business trying to blackmail them into passing mandatory helmet-use laws.

Over the past several months, the AMA has learned that legislators in Illinois, Rhode Island and Tennessee have decided to oppose the federal government's attempts to coerce them into passing helmet laws. Representatives in each state have approved resolutions calling on the U.S. Congress to abandon its federal helmet blackmail plan.

That plan, passed as part of the 1991 federal highway funding bill, works like this: Any state that fails to pass a mandatory helmet-use law by October of this year will lose control over 1½ percent of its federal highway safety fund allocations. Those states that fail to comply by October 1994 would lose control over even more.

Since that measure was passed, only one state—Maryland—has complied by passing a law requiring helmet use by all street motorcyclists. However, a number of other states have considered such laws.

The resolutions passed in Illinois, Rhode Island and Tennessee indicate that at least some state legislatures resent this attempted intrusion into their affairs. And lawmakers in four other states—Colorado, Minnesota, South Carolina and Wisconsin—have considered similar resolutions in recent months.

OFF-ROADERS SUFFER SETBACK

Off-highway motorcyclists in Pennsylvania have suffered a serious setback in their attempt to improve the state's trail-riding opportunities.

Recently, Gov. Robert Casey vetoed a bill that would have set up a statewide motorcycle trail-funding program. The plan would have paid for trail construction and maintenance through registration fees on off-highway motorcycles.

The governor didn't veto the bill because of the motorcycle trails provision. Instead, he opposed an unrelated part of the legislation that dealt with the state's drunken-driving law. However, that killed off the entire bill, and wiped out all the progress motorcyclists made during the '92 legislative session.

Fortunately, plans are already underway to revive the motorcycle registration provision this year.

"A motorcycle trail program for Pennsylvania would open up more riding opportunities for more people, while ensuring that the trails are maintained in harmony with the environment," says Eric Lundquist, AMA legislative affairs specialist. "For that reason, we'll be working hard to make sure riders get another shot at making this program a reality."

Pennsylvania will be one important battleground on this issue in the upcoming months, but it's not the only state where off-road riders are trying to establish funding programs. At least two other states—Minnesota and West Virginia—are expected to consider similar measures.

RIDER-ED STAGES COMEBACK

How's this for a comeback?

After being shot down by a governor's veto late in 1992, motorcyclists in Missouri have already started crusading for passage of a rider-education program this year.

Even before the new legislative session began, a measure to establish a motorcyclist-funded rider-education program in the state had been "prefiled" for consideration.

Last year, motorcyclists succeeded in pushing that program through both houses of the Missouri Legislature, only to see the plan dismantled by a veto from then-Gov. John D. Ashcroft. Since then, however, Missouri voters have elected a new governor, Mel Carnahan, giving new hope to supporters of the rider-ed plan, designated as Senate Bill 53.

STATE OF ALASKA

DEPARTMENT OF PUBLIC SAFETY

OFFICE OF THE COMMISSIONER

WALTER J. HICKEL, GOVERNOR

P.O. BOX 111200
JUNEAU, ALASKA 99811-1200
PHONE: (907) 465-4322

February 22, 1993

The Honorable Bert Sharp
Alaska State Legislature
State Capitol, Room 516
Juneau, AK 99801-1182

Dear Senator Sharp:

We are providing your office with these fact sheets from the National Highway Traffic Safety Administration. It is our hope they can be of some help in your determination as to passage or nonpassage of some of the important legislative issues presently pending in your House and Senate Chambers.

If we can be of further assistance in providing additional information on these issues, please call.

Sincerely,

Richard L. Burton
Commissioner

Enclosures

FEB 23 1993

12-L2LH

Public Safety
cc: WJH
cc: LO
cc: [illegible]
cc: [illegible]

U.S. Department of Transportation

National Highway Traffic Safety Administration

Administrator

400 Seventh Street, S.W.
Washington, D.C. 20590

DEC 11 1992

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DEC 18 1992
GOVERNOR'S OFFICE

The Honorable Walter J. Hickel
Governor of Alaska
P.O. Box A
Juneau, AK 99811

Dear Governor Hickel:

The National Highway Traffic Safety Administration is pleased to announce the continuation of the Federal incentive grant program under 23 U.S.C. §153 to encourage the enactment and enforcement of safety belt and motorcycle helmet use laws. The program provides up to three years of funding for States that qualify.

To qualify for a first-year grant, a State must enact both a safety belt law and a motorcycle helmet law. The safety belt law must apply to all front-seat passengers in passenger vehicles, and the helmet law to all persons riding on motorcycles. For second and third year grants, the State would have to meet certain levels of safety belt and helmet use as well as have had its laws in effect for the entire prior fiscal year.

Our current estimate is that Alaska would be eligible for $72,898 in Fiscal Year 1993 if it enacts the necessary legislation. We are sending your Highway Safety Representative the information that will be needed to apply for a grant.

You should be aware that if Alaska does not enact both laws by October 1, 1993, §153 specifies that one and one half percent of the State's apportionments for Fiscal Year 1995 for the National Highway System, the Congestion Mitigation and Air Quality Program, and the Surface Transportation Program must be transferred to the State's highway safety program. Additionally, if your State does not enact the laws by October 1, 1994, three percent of the Fiscal Year 1996 funds for the above programs will be transferred to the highway safety program.

	Commissioner
	Deputy Commissioner, Operations
	Deputy Commissioner Fin & Mgmt
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	[illegible] Mgmt Planning & Policy
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	CONF FYI RETURN

We are confident that the enactment of these laws, aided by the incentive grant funds, will increase safety on Alaska's highways. We strongly encourage the State to enact them. If we can be of any assistance to you, your staff and the State's legislators as you consider the alternatives in this program, please let us know.

Sincerely,

Marion C. Blakey

Marion C. Blakey

DOT URGES INTERMODAL INVOLVEMENT IN DESIGNATING NHS

"...the NHS is an opportunity to meet intermodal needs and enhance intermodal operations."

Warning that the authorized 155,000-mile National Highway System (NHS) will be "stillborn" unless it is fully supported by the states and transportation users, Robert Martinez, the U.S. Department of Transportation's Director of Intermodalism, said that completion of the system is "essential to national unity and economic vitality."

In an address to the Intermodal Association of North America, Martinez described the NHS as "the centerpiece of ISTEA (The Intermodal Surface Transportation Efficiency Act of 1991) and will be the major focus for the Federal-aid highway program into the 21st century."

He said that states will take the lead in working with local Metropolitan Planning Organizations and other officials to identify routes for the NHS. "If you are not plugged into this process and have concerns, get on the horn with your state people, because these decisions will not be made in Washington."

He said the ISTEA "specifically requires full consideration be afforded to access to ports and to intermodal facilities." He said the NHS is an opportunity to meet intermodal needs and enhance intermodal operations.

AREAS COMPETE FOR LIGHT RAIL FUNDS

San Francisco, Milwaukee, and a Washington, D.C., suburb are in a three-way competition for $35 million from the Federal Highway Trust Fund for a new light rail system.

U.S. Secretary of Transportation Andrew Card announced that after reviewing 17 proposals to design and build a light rail system using new technology, the finalists are the San Francisco Bay Area Rapid Transit District (BART), Milwaukee County, Wisconsin, and Montgomery County, Md.

The Intermodal Surface Transportation Efficiency Act of 1991 established the competition as the Suspended Light Rail Technology pilot project. The Federal Transit Administration (FTA) will pay up to 80 percent of the costs for the refinement of all three plans and $35 million to design and build the winning system.

The FTA expects to announce the winner in 1993.

SAFETY INACTION COULD SHIFT ISTEA FUNDS

States could see up to $380 million in federal aid shifted away from highway construction if they do not have safety belt and motorcycle helmet use laws in effect by 1994, according to a Highway Users Federation report.

In an effort to beef up safety laws, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) requires states to mandate the use of safety belts for front seat occupants of motor vehicles and the use of helmets by all motorcyclists regardless of age.

Any state that does not have these laws in effect by 1994 will have 1.5 percent of its funds for the National Highway System, congestion management, and Surface Transportation Program transferred to the 402 safety program.

After fiscal year 1994, the percentage rises to 3 percent.

States without safety belt use laws are Kentucky, Maine, Massachusetts, New Hampshire, North Dakota, South Dakota, Vermont, and West Virginia.

Three states, Colorado, Illinois, and Iowa, do not have motorcycle helmet laws. Rhode Island's law applies to motorcycle passengers but not drivers. In 21 states, the motorcycle helmet law covers riders in the 15-21 age group only, meaning their funds will be at risk also.

Federal-aid 402 funds are used for state and community safety grants, not for highway safety construction projects.

Said Lester P. Lamm, president of the Highway Users Federation, "While increased 402 funds would be welcome in many states, the alternative of fewer road safety improvement projects is a poor tradeoff."

ISTEA POTENTIAL SANCTIONS*

	$MILLIONS		$MILLIONS
ALASKA	18.3	MONTANA	9.5
ARIZONA	12.2	**NEW HAMPSHIRE	11.5
COLORADO	13.0	NEW MEXICO	9.5
CONNECTICUT	15.8	**NORTH DAKOTA	15.1
DELAWARE	5.2	OHIO	30.1
HAWAII	9.4	OKLAHOMA	12.2
IDAHO	7.7	RHODE ISLAND	5.2
ILLINOIS	37.8	SOUTH CAROLINA	12.6
INDIANA	20.0	**SOUTH DAKOTA	15.4
IOWA	13.3	UTAH	7.7
KANSAS	10.9	VERMONT	4.9
KENTUCKY	14.0	WEST VIRGINIA	8.1
**MAINE	11.6	WISCONSIN	15.4
MASSACHUSETTS	11.9	WYOMING	7.0
MINNESOTA	14.7	TOTAL	380.0

* Safety Belt Law and/or Motorcycle Helmet Sanctions

** Includes Both Safety Belt and Helmet Law Sanctions

(2) the motor vehicle displays a special license plate issued to disabled or handicapped persons under AS 28.10.181(d); or

(3) the motor vehicle displays a special license plate or permit issued to disabled or handicapped persons by another state, province, territory, or country.

(b) A person who violates this section is guilty of an infraction. Upon conviction the court shall impose a fine of not less than $100. (§ 2 ch 11 SLA 1987)

Sec. 28.35.240. Duty to obey school patrol. [Repealed, § 3 ch 68 SLA 1964.]

Sec. 28.35.245. Motorcycle helmet. (a) After January 1, 1978, motorcycle helmets may not be manufactured or sold in Alaska that do not conform to standards established by regulation by the commissioner of public safety. The regulations must provide for helmets that allow normal peripheral vision and hearing and minimize neck injuries to the wearer potentially caused by the helmet. The adoption of these regulations shall be under the provisions of the Administrative Procedure Act (AS 44.62).

(b) A person who has reached the age of majority as defined by AS 25.20.010 may not be required to wear a helmet while operating a motorcycle if the person is the holder of a license that, under regulations adopted under AS 28.15.041, is classified singly as a license to operate a motorcycle. (§ 1 ch 230 SLA 1976)

Collateral references. — 7A Am. Jur. 2d, Automobiles and Highway Traffic, § 210.

Sec. 28.35.250. Application of law. [Repealed, § 20 ch 241 SLA 1976.]

Sec. 28.35.251. Contained or confined loads. (a) A person may not drive a motor vehicle loaded with sand, gravel, rock, or similar materials on a highway unless

(1) the load is contained or confined to prevent the load from dropping, shifting, leaking, or escaping, except that sand or other substances may be dropped, sprinkled, or sprayed for the purpose of cleaning or maintaining the highway or providing traction; and

(2) the load is subjected to treatment by methods, approved by the commissioner by regulation, designed to settle the load or remove loose material before the vehicle is driven on the highway.

(b) If a cover is used to contain or confine a load being driven on a highway, the cover shall be securely fastened to prevent the cover from becoming loose or detached, or from being a hazard to other users of the highway. (§ 1 ch 62 SLA 1986)

THE FOLLOWING PAGES MAY
NOT FILM LEGIBLY BECAUSE OF
THE POOR QUALITY OF THE ORIGINAL

DATE: 2/[illegible]/[illegible]

PAGE 1 OF 2

FAX TRANSMITTAL COVER SHEET

TO: SENATE TRANSPORTATION COMMITTEE — FAX NUMBER 465-2[illegible]

ATTN: CHAIRMAN GENE STEVENS

FROM: DEREK M. BARNFIELD — FAX NUMBER (907) 776-[illegible]

SPECIAL INSTRUCTIONS/COMMENTS

DATE: 2-16-93

TO: THE SENATE TRANSPORTATION COMMITTEE

SUBJECT: SENATE BILL NO. 110

DEAR COMMITTEE MEMBERS:

YOU ARE IN THE PROCESS OF TRYING TO ENACT A MANDATORY MOTORCYCLE HELMET LAW.

MY FIRST QUESTION TO THE COMMITTEE IS THE FOLLOWING:

1. IS THIS PROPOSED BILL BASED ON THE FEDERAL BILL THE INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 THAT WILL PENALIZE [illegible] STATE THAT [illegible] AND WILL NOT PASS THE BILL BY SEPTEMBER 31 1993?

2. WHAT IF ANY SCIENTIFIC DATA IS BEING REVIEWED BY THE COMMITTEE DETAILING STATISTICS ON MOTORCYCLE ACCIDENTS, SPECIFICALLY HEAD AND NECK INJURIES.

3. WILL YOU OPEN THE COMMITTEE HEARINGS TO THE PUBLIC SO THAT YOU COULD GET INPUT FROM THE TAXPAYERS ON THIS ISSUE?

IN CLOSING THE CURRENT MOTORCYCLE HELMET LAW AS 44.62. AT THIS TIME THERE IS CURRENT SCIENTIFIC AND MEDICAL DATA THAT SUPPORTS ADVERSE STATISTICS ON MANDATORY HELMET USE.

1. 1% TO LOSS OF PERIPHERAL VISION, HEARING IMPAIRMENT, A 4 POUND HELMET ON YOUR HEAD AT 30 MPH TRANSLATES TO A 200 POUND HELMET AT POINT OF IMPACT. DOT IS STATE THAT NO HELMET CAN PENETRATE MORE THAN [illegible] A RIDER ABOVE 12 MILES PER HOUR.

HEAD TEMPERATURES INCREASE 2 TIMES WITH USE OF HELMET VS. A STOCKING CAP, CONTRIBUTING TO DIZZINESS, MOTOR SKILL FUNCTIONS IMPAIRED, BLURRED VISION.

IN MY OPINION THE STATE OF ALASKA OR THE FEDERAL GOVERNMENT HAS NO RIGHT TO DICTATE AND PASS LAWS THAT THROUGH SCIENTIFIC STUDIES HAS [illegible] USE OF HELMETS.

PLEASE GET ALL THE FACTS BEFORE ARBITRARILY PASSING LAWS THAT NOT ONLY INFRINGE ON THE CITIZENS RIGHT TO FREEDOM OF CHOICE BUT IN FACT COULD BE MORE HARMFULL THAN HELPFULL.

SINCERELY
[illegible] / CONCERNING [illegible]

he Republican from ity leader. And he's his hands in the candy

making it clear he's not

Its members, taking the to allow elk hunting in ds west of Wrangell. Elk 's urging, apparently

PIC: He uses ical clout to Game Board

members approved the

lays later, the Game v hunting of the stray elk.

transplant an additional uscle. Here's what the n. Taylor did mention the would take away the probably out of line." ns, was so angry he is nvolvement: "That was of the board members the worst form of

l interests have no or anyone else. believe Alaska's ife management than he

s newfound political e on budgets and policy, ly.

MPIRE

Cocker spaniels.
50th anniversaries and 90th birthdays.
Ten-gallon hats.
Laundry drying outside on a sunny day, dancing on the clothesline in the breeze.
Arnold Palmer.
A used-book sale.
Pumpkin pie.
Porch swings.
Free time on a parking meter.
A wren's nest.

•••••

Bob Greene is a columnist for the Chicago Tribune.

JUNEAU EMPIRE 3/31/93

MY TURN

Motorcycle helmet law makes good sense

By FRANK TURPIN

The Legislature is currently considering a bill (Senate Bill 110) that would make the use of a helmet while riding a motorcycle mandatory. The bill is in response to pending federal requirements containing an unusual penalty if the state does not enact the motorcycle helmet law.

James F. Andrus, legislative affairs representative for the Anchorage chapter of the Alaska Bikers Advocating Training and Education, has urged a "no" vote on the bill. He would lead one to believe that the federal requirement for the state to enact a motorcycle helmet law is wrong on two counts.

First, he labels it as blackmail since the federal government requires a mandatory motorcycle helmet law for each state under the threat of diversion of federal highway funds.

Second, he points out that by ignoring the federal coercion, we gain the benefit of having the federal highway money converted into an obscure safety program that would grow nearly 100-fold seemingly at no public expense.

However, his point of view fails to mention or explain either the benefits of a mandatory motorcycle helmet law or the state retaining the freedom to utilize highway money as it sees fit.

In discussing the lack of benefits of a mandatory helmet law, the AMA is cited as an authoritative source. He is not referring to the AMA we all recognize, but instead the American Motorcyclist Association. Somewhat like asking moonshiners if bootlegging is a problem – you know the answer in advance.

> There is little doubt that helmets reduce injuries and the related human, financial and emotional burden that accompany major trauma.

However, the opinion of the other AMA – the American Medical Association – differs substantially on the question of the benefits of motorcycle helmets.

A quick review of the medical literature found 15 articles addressing the consequences of motorcycle accidents in general and motorcycle accidents where helmets were not worn.

Sources such as the Journal of the American Medical Association, Texas Medicine, Annals of Emergency Medicine and the Journal of Trauma did not conclude that helmet usage among motorcyclists is a trivial matter without measurable public benefit. Rather, these articles overwhelmingly conclude that helmets prevent serious injury and, important to this debate, greatly reduce the public costs of private behavior.

Given the breadth and detail provided in these scholarly journals, innumerable statistics could be cited as to the utility of helmets in both reducing serious injury and death, as well as the enormous public costs that frequently accompany trauma to individuals. But a Massachusetts court, in 1972, expressed the issue in clear terms:

"We cannot agree that the consequences of such (motorcycle) injuries are limited to the individual who sustains the injury. From the moment of injury, society picks the person up off the highway, delivers him to a municipal hospital and municipal doctors, provides him with unemployment compensation if, after recovery, he cannot replace his lost job, and if the injury causes permanent disability, may assume the responsibility for his and his family's subsistence."

There is little doubt that helmets reduce injuries and the related human, financial and emotional burden that accompany major trauma. If these benefits come at the price of a bit of federal blackmail, then the books seem more than balanced.

The second aspect of Andrus' argument is that spending nearly $5 million per year on safety programs, including motorcycle driver education, from money that would otherwise be used to develop and rebuild Alaska's highway system, would more than make up for the lack of public benefits.

But this argument seems to miss three important points. One is that even in the heyday of the early 1980s, when oil money could have easily absorbed any number of driver and motorcycle education programs, state leaders were not inclined to use public funds in this manner. Such a use of funds in today's era of fiscal austerity would seem to violate common sense.

Second, the driver and not the public should bear the cost of driver education. We now require that cars meet minimum standards, that drivers pass tests, that insurance be maintained, that air pollution criteria be passed and that seat belts be worn, all without direct public expense.

Finally, the diversion of $5 million per year from highway construction to bureaucratic programs is a significant loss to our ailing highway system. Safe, modern highways save lives, increase productivity and improve mobility.

Another way of viewing this issue is to imagine if each of us contributed equally to the $5 million in question. It's about $9 each or $36 for a family of four. If given the choice of having state government spend this money on improved highways or driver education programs, what would your choice be?

I know what my choice would be, and I endorse Senate Bill 110 for both the flexibility it provides the state in using federal highway funds and the reduction in serious accidents that result from safer motorcycle usage.

•••••

Frank Turpin is commissioner of the Alaska Department of Transportation and Public Facilities.

I MANDATORY MOTORCYCLE HELMET LAW

Public Law 102-240, dated December 18. 1991, represents an attempt by the federal government to encourage states to pass laws requiring motorcycle operators and passengers to wear helmets. Alaska requires juveniles to use helmets, but by statute this cannot be required of adults. *See AS 28.35.245(b).* (P.L. 102-240 similarly encourages mandatory safety belt laws, which we already have in Alaska.)

Under this law, states with both mandatory helmet and mandatory safety belt laws were entitled to federal grants for FY92, FY93 and FY94, to be used in adopting and implementing a traffic safety program relating to safety belts and motorcycle safety. The funds could also be used to enforce these helmet and safety belt laws and to train public safety officers how to enforce these laws.

A state that has not enacted a mandatory helmet law not only will not receive the grants referred to above, but will also suffer a "penalty" commencing in FY94. The "penalty" is that 1 1/2% for the first year and 3% each year thereafter of certain, designated federal highway program funds will no longer be appropriated to the state (Department of Transportation) for those programs, but will instead be appropriated to the state (Department of Public Safety) under the federal highway safety act for the purposes of that act. The federal programs from which the funds would be diverted are: the National Highway System, the Congestion Mitigation and Air Quality Improvement Program, and the Surface Transportation Program.

These sums amount to approximately $2.6 million dollars for the first year and $5.2 million dollars thereafter.

BILL NO: SB 110 **DATE:** March 16, 1993

TITLE: "An Act requiring the use of a motorcycle helmet. . ." **CONTACT:** C.E. Swackhammer
Deputy Commissioner
465-4322

POSITION PAPER - Department of Public Safety

Public Law 102-240, dated December 18, 1991, represents an attempt by the Federal Government to encourage states to pass a law requiring motorcycle operators and passengers to wear helmets. Alaska presently requires juveniles to use helmets, but by statue this cannot be required of adults.

Unless legislation is passed this session to require mandatory helmet use by law, the Federal Government will initiate a transfer of funds from the Alaska Department of Transportation and Public Facilities to the Alaska Highway Safety Planning Agency (HSPA). Section 153 of the Intermodal Surface Transportation Efficiency Act of 1991 requires that every state have in place both a safety belt use law and a motorcycle helmet use law during FFY 1994 to avoid this action. The transfer will not occur until Federal Fiscal Year 1995 and will come from three highway programs: The Surface Transportation Program, the National Highway System, and the Congestion Mitigation and Air Quality Improvement Program. An estimated $2 million dollars will be transferred in FFY 1995 and twice that in subsequent years. These transferred funds may be used for motorcycle and safety belt education, training and for enforcement.

During calendar year 1991, the most recent year for which we have complete information, eleven motorcyclists were killed in Alaska; three of whom were not wearing helmets. Ten cyclists were killed in 1990; six were not wearing helmets.

According to the National Highway Safety Administration from 1984 through 1989, helmets saved the lives of more than 4,100 motorcyclists. If everyone on a motorcycle (both operators and passengers) had worn helmets during those years, approximately 4,182 additional lives could have been saved.

This confirms the findings of numerous studies done in the United States, Great Britain, Canada, Japan and Australia showing how effective helmets are in preventing or reducing the severity of motorcycle head injuries. That's why these countries all require motorcycle helmet use laws.

Department of Public Safety recommends passage of SB 110 as written.

Richard L. Burton
Commissioner

STATE LEGISLATIVE FACT SHEET

US Department of Transportation
National Highway Traffic Safety Administration

October 1992

SAFETY BELT USE LAWS

The U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) believes that every State should have a law which requires the use of safety belts by occupants of motor vehicles. Traffic crashes are the greatest single cause of death for every age between 6 and 33. Safety belts are the most effective means for reducing fatalities and serious injuries when crashes occur, and air bags provide valuable supplemental protection in head-on crashes. Many new vehicles are equipped with driver-side air bags; but, even with an air bag, safety belt use is needed to obtain maximum protection--and to obtain protection in side and rear impact crashes and rollovers.

Key Facts

- In 1991, 41,462 persons were killed in highway crashes in the U.S. That's equivalent to three fully loaded wide-body jet crashes every week. Many times that number of persons were seriously injured.

- Of the 41,462 motor vehicle deaths in 1991, 22,347 (54 percent) involved passenger car occupants, and another 8,380 (20 percent) involved light truck and van occupants.

- Lap and shoulder belts, when used, are the single most effective means for occupants to reduce the risk of death and serious injury in a highway crash.

- Experience in the U.S. and other countries confirms that belt use laws do substantially increase usage. Without such laws, most people fail to buckle up.

- With enforced safety belt use laws, several nations have achieved usage rates of 80 percent or higher. In Canada, for example, enforcement of provincial belt use laws has enabled the national usage rate to increase from about 55% to more than 85%. Saskatchewan and Quebec have attained use rates of over 90%.

- In the U.S., with minimally enforced use laws, safety belt use has increased from an average of 11 percent in 1981 to 59 percent in 1991. With adequate enforcement, seven States have

traffic safety laws. Getting this message across is important because increasing motorist compliance with safety belt use laws offers more potential for achieving immediate reductions in death and injury than any other traffic safety measure.

Generally, safety belt use laws are more effective if they: cover all passenger vehicles including light trucks and vans; cover all seating positions; require a reasonable penalty; allow limited waivers only for medical reasons; and establish a public education program to explain the need for the law and to encourage compliance. In general, the more exceptions a law has, the lower the compliance rate will be because exceptions generally make enforcement more difficult.

Who Supports Safety Belt Use Laws?

The following organizations have publicly supported safety belt use laws:

- Advocates for Highway and Auto Safety
- Allstate Insurance Corporation
- American Academy of Family Physicians
- American Academy of Pediatrics
- American Academy of Orthopedic Surgeons
- American Association for Automotive Medicine
- American Association of Retired Persons
- American Coalition for Traffic Safety,Inc.
- American College of Emergency Physicians
- American Medical Association
- American Red Cross
- Federal Highway Administration
- Highway Users Federation for Safety and Mobility
- Insurance Institute for Highway Safety
- International Association of Chiefs of Police
- Kemper National Insurance Companies
- Mothers Against Drunk Driving
- National Commission Against Drunk Driving
- National Association of Counties
- National Association of Governors' Highway Safety Representatives
- National Association of Emergency Medical Service Directors
- National Association of EMS Physicians
- National Association of Independent Insurers
- National Highway Traffic Safety Administration
- National Safety Council
- National Sheriff's Association
- National Transportation Safety Board
- Nationwide Insurance Corporation
- Remove Intoxicated Drivers
- Traffic Safety Now, Inc.
- USAA Insurance Corporation
- U.S. Conference of Mayors

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991

ISTEA provides incentive grants in Fiscal Years 1992-94 for those States that have in effect a motorcycle helmet law applicable to all riders and a safety belt use law applicable to front-seat occupants in passenger vehicles. In the first year a State must have both laws to qualify. In the two subsequent years, it must also achieve certain compliance levels.

If a State does not have both laws by October 1, 1993, 1.5 percent of its principal Federal-aid highway funds for Fiscal year 1995 will be transferred to its Section 402 highway safety program. If a State does not have both laws in effect at any time in Fiscal Year 1995 or thereafter, 3 percent of these funds will be transferred to the Section 402 highway safety program.

Additional Sources of Information

Four Annual Reports to Congress entitled Factors Related to Increasing Safety Belt Use in States with Safety Belt Laws, dated February 1988, January 1989, January 1990, and February 1991. This series

CORRECTION

THIS DOCUMENT
HAS BEEN REPHOTOGRAPHED
TO ASSURE LEGIBILITY

STATE LEGISLATIVE FACT SHEET

US Department of Transportation
National Highway Traffic Safety Administration

October 1992

SAFETY BELT USE LAWS

The U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) believes that every State should have a law which requires the use of safety belts by occupants of motor vehicles. Traffic crashes are the greatest single cause of death for every age between 6 and 33. Safety belts are the most effective means for reducing fatalities and serious injuries when crashes occur, and air bags provide valuable supplemental protection in head-on crashes. Many new vehicles are equipped with driver-side air bags; but, even with an air bag, safety belt use is needed to obtain maximum protection--and to obtain protection in side and rear impact crashes and rollovers.

Key Facts

- In 1991, 41,462 persons were killed in highway crashes in the U.S. That's equivalent to three fully loaded wide-body jet crashes **every week**. Many times that number of persons were seriously injured.

- Of the 41,462 motor vehicle deaths in 1991, 22,347 (54 percent) involved passenger car occupants, and another 8,380 (20 percent) involved light truck and van occupants.

- Lap and shoulder belts, when used, are the single most effective means for occupants to reduce the risk of death and serious injury in a highway crash.

- Experience in the U.S. and other countries confirms that belt use laws do substantially increase usage. Without such laws, most people fail to buckle up.

- With enforced safety belt use laws, several nations have achieved usage rates of 80 percent or higher. In Canada, for example, enforcement of provincial belt use laws has enabled the national usage rate to increase from about 55% to more than 85%. Saskatchewan and Quebec have attained use rates of over 90%.

- In the U.S., with minimally enforced use laws, safety belt use has increased from an average of 11 percent in 1981 to 59 percent in 1991. With adequate enforcement, seven States have

achieved usage rates over 70 percent--with Hawaii now exceeding 80 percent.

- In 1991, if every front seat occupant had buckled up, more than 14,400 deaths and several hundred thousand serious injuries would have been prevented by seat belt use.

- Public opinion surveys reveal that 88 percent of respondents believe that safety belts save lives and reduce injuries; 75 percent say that they favor belt use laws; 70 percent say that the risk of receiving a citation would make them buckle up; and 65 percent (in belt law States) say police should issue more citations.

- Safety belt laws have been consistently upheld by State courts as constitutional.

Cost Savings

Hospital studies have repeatedly shown that victims of serious crashes who are unbelted are more likely to be hospitalized; suffer injuries that are much more severe; require longer hospital stays; and incur costs that are 2-7 times greater. In addition, studies have indicated that unbelted victims are more likely to be uninsured, under-insured, or covered only by programs that are government supported, such as Medicare. Government picks up much of these costs.

The fatalities and injuries that are prevented by safety belt use laws result in significant economic savings to society. In 1990, at a usage rate of about 50%, the societal savings were estimated to be $3.5 billion. One recent study pointed out that for persons hospitalized as a result of a traffic crash, their first-year medical costs alone totaled nearly $6.5 billion. Nearly one-third of these costs were borne by government.

Legislative Status

The total number of States with safety belt laws has increased each year since the first U.S. law became effective in New York in 1984. With safety belt laws currently in 42 States (see attached map), the District of Columbia, Puerto Rico, the Virgin Islands and Guam, over 93 percent of the U.S. population is covered by some type of safety belt use law. In addition, several cities in non-law States have enacted local safety belt use ordinances. Belt use in States with a law is generally one and one-half times higher than in States without a use law.

What Type of Law Works Best?

Safety belt use laws differ primarily in terms of the vehicles, occupants, and seating positions covered, as well as in the type of enforcement permitted.

Primary enforcement laws, which permit an officer to stop and cite a driver for a belt law violation, are preferable to secondary enforcement laws. With secondary laws, officers must first observe a primary offense, such as running a stop sign or speeding, before they can issue a citation for not wearing a safety belt. Belt use in States with primary laws averages more than 10 percentage points higher than States with secondary laws. Primary laws send a clear message to law enforcement and to the general public that safety belt use laws are just as important as other

traffic safety laws. Getting this message across is important because increasing motorist compliance with safety belt use laws offers more potential for achieving immediate reductions in death and injury than any other traffic safety measure.

Generally, safety belt use laws are more effective if they: cover all passenger vehicles including light trucks and vans; cover all seating positions; require a reasonable penalty; allow limited waivers only for medical reasons; and establish a public education program to explain the need for the law and to encourage compliance. In general, the more exceptions a law has, the lower the compliance rate will be because exceptions generally make enforcement more difficult.

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- American Medical Association
- American Red Cross
- Federal Highway Administration
- Highway Users Federation for Safety and Mobility
- Insurance Institute for Highway Safety
- International Association of Chiefs of Police
- Kemper National Insurance Companies
- Mothers Against Drunk Driving
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- National Safety Council
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Additional Sources of Information

Four Annual Reports to Congress entitled Factors Related to Increasing Safety Belt Use in States with Safety Belt Laws, dated February 1988, January 1989, January 1990, and February 1991. This series

summarizes the research findings and describes a program for gaining the maximum benefit from belt laws.

Occupant Protection Program Review and Assessment--A Technical Assistance Program. This brief summary explains how federal, state and local program officials can participate in a review process that can re-energize the program and lead to more effective laws and related program support.

National Occupant Protection Conference--Summary of Proceedings. May 1990. This summary provides a description of program components and relationships, along with recommendations for program action. The central importance of safety belt use laws and combined enforcement and education in support of those laws is clearly evident.

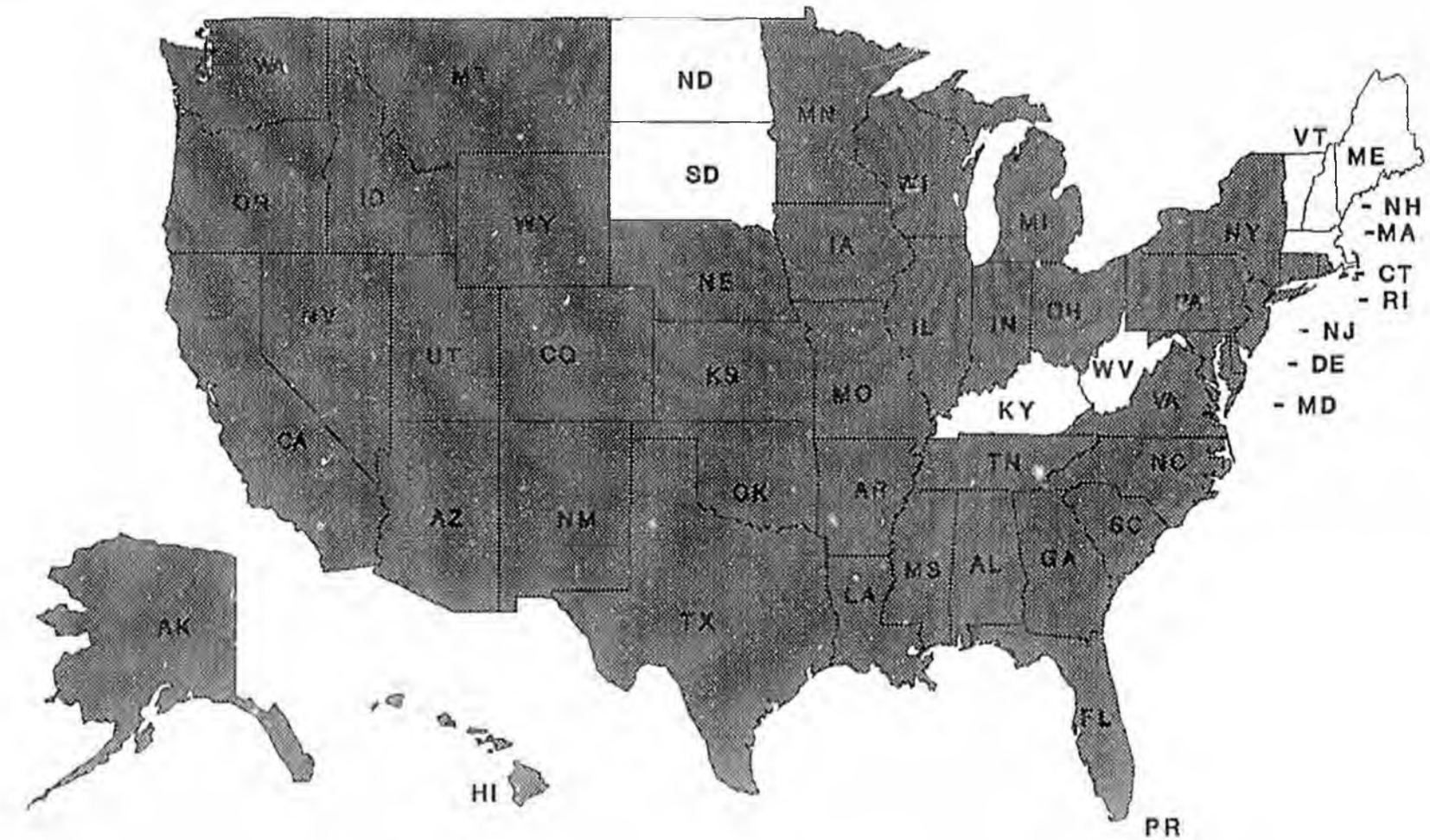
National Leadership Conference on Increasing Safety-Belt Use in the U.S., January 10-12, 1991. This is a summary of conference proceedings co-sponsored by NHTSA and the American Coalition for Traffic Safety (ACTS). More than 75 recommendations on how to raise belt use were developed by the participants.

Safety Belt Use Laws Save Lives and Reduce Costs to Society, May 1992, GAO/RCED-92-106. This report evaluates and summarizes 85 studies relating to seat belt effectiveness and societal costs.

These reports and additional information are available from your State Highway Safety Office, the NHTSA Regional Office serving your State, or from NHTSA Headquarters, Traffic Safety Programs, ATTN: NTS-13, 400 7th St., S.W., Washington, D.C. 20590, 202/366-2711.

SAFETY BELT USE LAWS

(42 States plus D.C.)



SBU LAW
(NE Law Effective 1/1/93)

NO SBU LAW
(KY, ME, MA, NH, ND, SD, VT, WV)

As of October 1992

FISCAL NOTE

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NO: SB 110

Revision Date: _____ Dept. Affected: Public Safety

Title: "An Act requiring the use of a motorcycle helmet, ..." BRU: Highway Safety Planning Agency

Component: Federal Grants

Sponsor: Senate Transportation

Requestor: Senate Transportation COMPONENT SERIAL NO. 499

EXPENDITURES/REVENUES: (Thousands of Dollars) (inflation not included)

OPERATING	FY 94	FY 95	FY 96	FY 97	FY 98	FY 99
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
REVENUE FUND SOURCE:	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING: (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year (FY 93) impact: $ _____

ANALYSIS: (Attach a separate page if necessary.)

See attached.

Prepared By: Lorn Campbell Phone: 465-4371

Division: Highway Safety Planning Agency Date: 3/16/93

Approved by Commissioner: [signature] Date: 3/16/93

Agency: Richard L. Burton, Dept. of Public Safety

PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE

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If the State fails to enact a mandatory helmet law this session, it will result in a transfer of Federal Highway Funds from the Department of Transportation and Public Facilities to the Highway Safety Planning Agency. Funds to be transferred will come from the National Highway System, the Congestion Mitigation and Air Quality Improvement Program, and the Surface Transportation Program, commencing in FY 95. The transfer will be in the amount of one and one half percent for the first year and three percent each year thereafter.

FISCAL NOTE

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NO: SB 110

Revision Date: _____ Dept. Affected: Public Safety

Title: "An Act requiring the use of a motorcycle helmet." BRU: Highway Safety Planning Agency

Component: Highway Safety Planning Operations

Sponsor: Senate Transportation

Requestor: Senate Transportation COMPONENT SERIAL NO. 498

EXPENDITURES/REVENUES: (Thousands of Dollars) (inflation not included)

OPERATING	FY 94	FY 95	FY 96	FY 97	FY 98	FY 99
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
REVENUE FUND SOURCE:	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING: (Thousands of Dollars)

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year (FY 93) impact: $ _____

ANALYSIS: (Attach a separate page if necessary.)

See attached analysis.

Prepared By: Lorn Campbell Phone: 465-4374

Division: Highway Safety Planning Agency Date: 2/16/93

Approved by Commissioner: _____ Date: 2/16/93

Agency: Richard L. Burton, Dept. of Public Safety

PREPARER TO PROVIDE ALL DISTRIBUTION COPIES TO GOVERNOR'S LEGISLATIVE OFFICE

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Analysis:

If the state fails to enact a mandatory helmet law this session, it will result in a transfer of Federal Highway Funds from Department of Transportation to the Highway Safety Planning Agency. Funds to be transferred will come from the National Highway System, the Congestion Mitigation and Air Quality Improvement Program, and the Surface Transportation Program commencing in FY 95. The transfer will be in the amount of 1-1/2% for the first year and 3% each year thereafter.

Moved from Senate Trans. 2/17/93

8-LS0598\E

CS FOR SENATE BILL NO. 110(TRA)

IN THE LEGISLATURE OF THE STATE OF ALASKA

EIGHTEENTH LEGISLATURE - FIRST SESSION

BY THE SENATE TRANSPORTATION COMMITTEE

Offered: 2/17/93
Referred: Judiciary

Sponsor(s): SENATE TRANSPORTATION COMMITTEE

A BILL

FOR AN ACT ENTITLED

"An Act requiring the use of a motorcycle helmet when operating or riding on a motorcycle; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* **Section 1.** AS 28.35.245(b) is repealed and reenacted to read:

(b) A person shall wear a motorcycle helmet while operating or riding on a motorcycle.

* **Sec. 2.** This Act takes effect September 30, 1993.

SENATE BILL NO. 110

IN THE LEGISLATURE OF THE STATE OF ALASKA

EIGHTEENTH LEGISLATURE - FIRST SESSION

BY THE SENATE TRANSPORTATION COMMITTEE

Introduced: 2/11/93
Referred: TRA, JUD

A BILL

FOR AN ACT ENTITLED

"An Act requiring the use of a motorcycle helmet when operating or riding on a motorcycle; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 28.35.245(b) is repealed and reenacted to read:

(b) A person shall wear a motorcycle helmet while operating or riding on a motorcycle.

* Sec. 2. This Act takes effect ~~July 1, 1993~~ Sept. 30, 1993.

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NUMBER: SB 110

FISCAL NOTE

Revision Date:
Title: Motorcycle Helmet Bill

Department Affected: DOT&PF
BRU: CIP Program

Sponsor: Transportation
Requestor: Sharp

Component:
Component Serial Number:

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY94	FY95	FY96	FY97	FY98	FY99
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING:	0	0	0	0	0	0
CAPITAL*	0	0	0	0	0	0
REVENUE FUND SOURCE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

1002 FEDERAL RECEIPTS	0	0	0	0	0	0
1003 GF MATCH	0	0	0	0	0	0
1004 GF	0	0	0	0	0	0
1005 GF/PROGRAM RECEIPTS	0	0	0	0	0	0
1006 GF/MHTIA	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL FUNDING:	0	0	0	0	0	0

POSITIONS

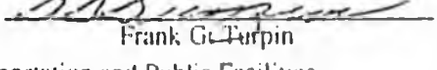
FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year (FY93) impact: $

ANALYSIS: (Attach a separate page if necessary)
*In FY94, the state would be penalized approximately $2.6 million, increasing to approximately $5.2 million per year thereafter, for a total of approximately $23.4 million over a five-year period. The federal programs from which the funds would be diverted are: the National Highway System, the Congestion Mitigation and Air Quality Improvement Program, and the Surface Transportation Program. These funds would no longer be available for construction, but instead be transferred to the Department of Public Safety for education and safety programs.

Prepared by: Katy McHugh — Phone: 465-3902

Division: Special Assistant, Office of the Commissioner — Date: February 16, 1993

Approved by Commissioner:  — Phone: 465-3900
Frank G. Turpin

Agency: Department of Transportation and Public Facilities — Date: February 16, 1993

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SB
130

STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

CHIEF OF PLANNING AND ADMINISTRATIVE SERVICES

2301 PEGER ROAD
FAIRBANKS, ALASKA 99709-5316
PHONE: (907) 451-5150

December 23, 1992

Re: Fairbanks-Seward Peninsula
Railroad Extension

Red Swanson
113 W. 5th Street
Juneau, AK 99801

Dear Mr. Swanson:

The following information is in response to your December 23, 1992 inquiry regarding the estimated cost for reconnaissance work to identify an alignment for railroad extension to the Seward Peninsula. We did a similar estimate in 1980 based on what it had cost us for comparable work between Eielson Air Force Base and the Canadian Border. The following figures reflect that estimate, updated to take into account inflation, technological advances, a substantial increase in length, and the relatively remote nature of new corridor. The estimate is based on a distance of 875 miles from Fairbanks to Lost River through Tanana, Allakaket and Bornite. While that may, or may not, be the ultimate alignment, it appears to be representative of the relative length of any possible alignment from Fairbanks to the Western Seward Peninsula.

Cost Breakdown	
Reconnaissance Photography -topo map work to identify alignment(s) -color photography of an entire route including alternate routes over 50% of its length	$75,000
Reconnaissance Study -photo interpretation -some fieldwork -selecting a route for mapping -compile preliminary report	$90,000
Reconnaissance Subtotal	$165.000

(This is as far as we could go without performing on-the-ground work. It would be adequate for identifying a corridor. It would not be adequate for identifying right of way limits. The following steps would be required for defining the necessary right of way. The estimated costs do not include environmental work that could be required for ground work, especially on park and refuge lands.)

COST BREAKDOWN

Placing photo control panels on ground (assumes all work done with helicopters).	$920,000
Aerial photography for mapping.	$85,000
Control survey for mapping (assumes consultant contract).	$5,000,000
Selecting center line for mapping -a study of the mapping photos -some field work	$100,000
Mapping a 500 foot band for 875 miles.	$840,000
Placing a final center line on mapping	$160,000
Defining the right of way along the selected center line. -ties to section corners and property corners -property descriptions, etc.	$50,000
Right of Way Mapping Subtotal	$7,135,000
Total Cost of Reconnaissance/Location Project (not including Environmental document).	$7,300,000

As you see, the cost of work that could be done to identify a corridor, without getting on the ground, is relatively small ($165,000). On the other hand, delineation of right of way limits would cost substantially more and would involve actual ground work.

Please contact me if you have questions regarding either the cost estimate or the reconnaissance/location process.

Sincerely,

Norm Piispanen
Access Planner
Northern Region

sb

NOME CHAMBER OF COMMERCE

P.O. Box251, Nome, Alaska 99762
Committee for Cooperation, Commerce
and Peace (907) 443-2002

Sen. Sharp
Transportation Chairman
Alaska State Senate

March 4, 1993

Senate Bill #130 and Senate Bill #131 ($165,000.00 appropriation)

Proposed draft changes: (Underlined in bold print)
Jim Stimpfle, President
Nome Chamber of Commerce
Nome, Alaska

Senate Bill #130:

"An Act making a special appropriation to the Department of Natural Resources and Department of Transportation and Public Facilities to complete alignments, GPS mapping, engineering, and title support services, for transportation/energy corridors on State lands between Fairbanks and the Seward Penisula; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

Section 1. The sum of $770,000.00 is appropriated from the general fund to DNR's Division of Geological and Geophysical Surveys (DGGS), for GPS(Global Positioning System) mapping to identify route resources, viable mineral districts and adjoining resources along proposed corridors; and for the State Pipeline Coordinators Office to coordinate oversight review with inhouse personal; and for DOT&PF-Northern Region to estimate engineering design systems and provide special project support for RS-2477 assertions, identification and plotting of alignments working with DGGS and the State Pipeline Coordinator's Office.

PROPOSED CHANGES
NOME CHAMBER OF COMMERCE

These proposals were drafted for your review and consideration after consulting with the Division of Natural Resources personnal who are currently engaged in determining state land selections to enhance future transportation and energy corridors for all Alaskans.

In view of on going budget cuts the State of Alaska is facing, it is imperative that appropriate multi-modal right-of-way studies be finished to insure that rural Alaskans have economic development options available while safeguarding environmental and subsistence life resources on the Seward penisula.

In general terms, the Nome Chamber of Commerce supports a multi-modal right-of-way corridor to the Seward Penisula for economic development to encourage eco-tourism to view wildlife and subarctic eco-systems, to develop mining for mineral or energy related employment opportunities for rural residents, with engineered designed safeguards to the environment and to insure that fish and wildlife resources are available for indigenous Native populations living along or near the right-of way. These are some of the expressed concerns of the Nome Chamber of Commerce.

It is recommended that the Village and Regional Native Corporations (BSNC) on the Seward Penisula be consulted as to appropriate right-of-way corridors near their lands to either maximize economic development strategies and/or perserve subsistence lifestyles.

Sincerely

Jim

Jim Stimpfle, President
Nome Chamber of Commerce
tel. and FAX (907) 443-2002

Department of Transportation and Public Facilities

POSITION PAPER

BILL NO: SB 130

APPROVED:

TITLE: Approp: Fairbanks-Nome Transportation Corridor

DATE: March 3, 1993

DOT&PF supports the proposed reconnaissance work in that the information gained from it would be valuable in related land management decisions (i.e., it could help prevent land management decisions from foreclosing on transportation options). The information gained could also be incorporated into long-term transportation planning for interior and Western Alaska.

For [illegible] at 465-3904.

POSITION PAPER(S)

STATE OF ALASKA
OFFICE OF THE GOVERNOR

BILL ANALYSIS

DEPARTMENT	DIVISION	BILL NUMBER	SPONSOR
DOT&PF	Planning	SB 130	Sharp

SHORT TITLE OF BILL
Approp: Fairbanks-Nome Transportation Corridor

DEPARTMENT POSITION
Supportive

PREPARED BY	DATE	COMMISSIONER'S SIGNATURE	DATE
Norm Piispanen	3/2/93		3-4-93

SUMMARY

OTHER AGENCIES AFFECTED BY BILL	CONSTITUENT GROUPS AFFECTED BY BILL
State/Federal Land and Resource Management Agencies	Interior/Seward Peninsula Residents Transportation Industry
ORGANIZATIONAL SUPPORT FOR BILL	**ORGANIZATIONAL OPPOSITION TO BILL**
Mineral Industry Chambers of Commerce Transportation Industry	Environmental Organizations Some Native Groups/Corporations

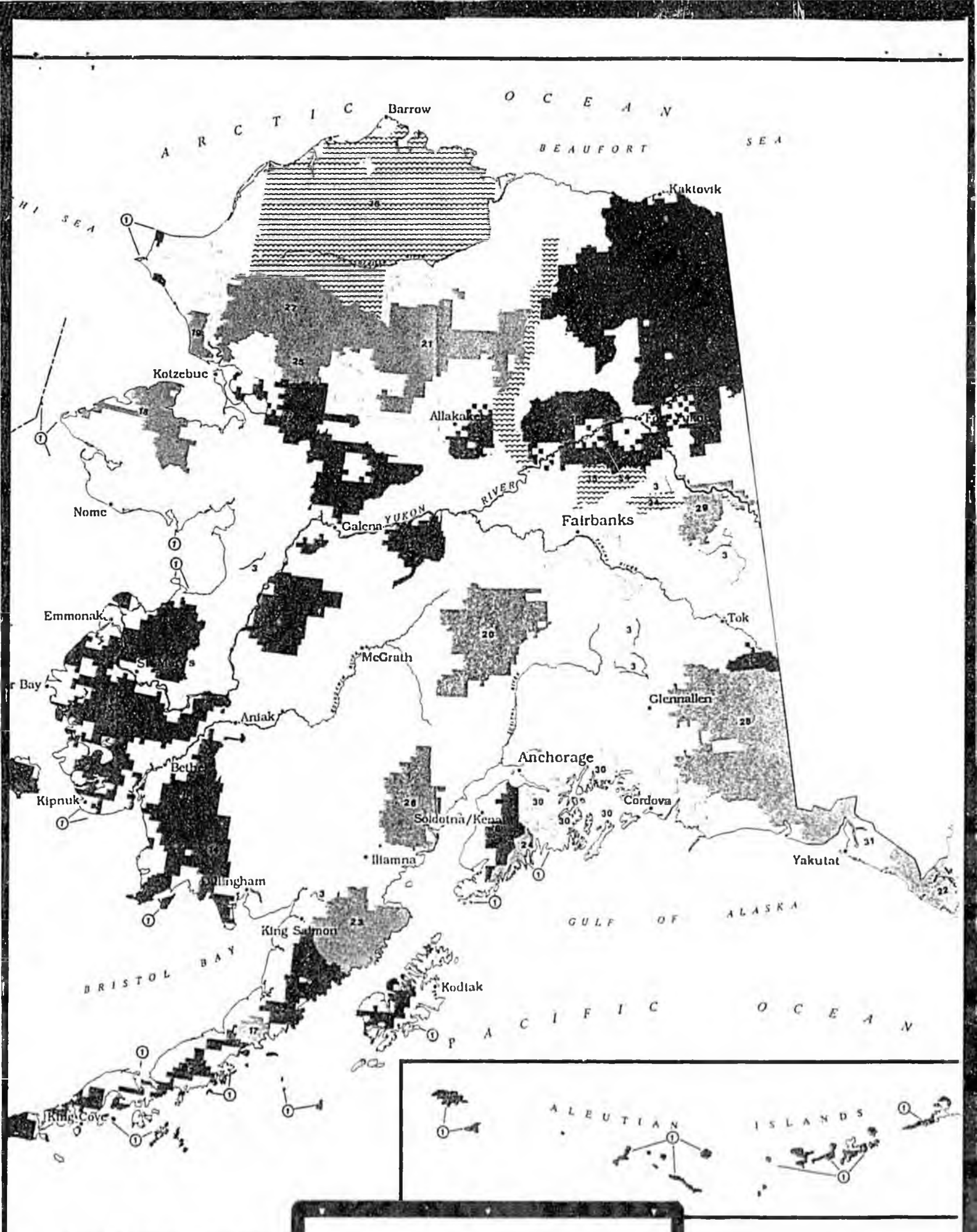
FISCAL IMPACT ☐ NONE ☒ FISCAL NOTE ATTACHED

BACKGROUND/LEGISLATIVE INTENT
This bill addresses access to western Alaska, and through Alaska between North America and Asia/Europe.

ANALYSIS OF BILL/PROGRAM EFFECTS
The information gained from such a reconnaissance would be valuable to general land management and transportation planning for Interior and Western Alaska. DOT&PF is capable and willing to do the prescribed reconnaissance work.

AMENDMENTS PROPOSED

PLEASE ATTACH A SEPARATE SHEET FOR ADDITIONAL COMMENTS OR ANALYSIS



GEMENT PUBLICATION # BLM-AK-GI-90-

MAPS

Federal Lands In Alaska

October 1991

ALASKA NATIONAL INTEREST LANDS CONSERVATION ACT CONSERVATION SYSTEM UNITS (CSU)

NATIONAL WILDLIFE REFUGE SYSTEM

1. Alaska Maritime NWR*
2. Alaska Peninsula NWR
3. Arctic NWR
4. Becharof NWR
5. Innoko NWR
6. Izembek NWR
7. Kanuti NWR
8. Kenai NWR
9. Kodiak NWR
10. Koyukuk NWR
11. Nowitna NWR
12. Selawik NWR
13. Tetlin NWR
14. Togiak NWR
15. Yukon Delta NWR
16. Yukon Flats NWR

* The Alaska Maritime National Wildlife Refuge consists of all the public lands in the coastal waters and adjacent seas of Alaska consisting of islands, islets, rocks, reefs, capes, and spires.

NATIONAL PARK SYSTEM

17. Aniakchak Nat'l Monument and Preserve
18. Bering Land Bridge Nat'l Preserve
19. Cape Krusenstern Nat'l Monument
20. Denali Nat'l Park and Preserve
21. Gates of the Arctic Nat'l Park and Preserve
22. Glacier Bay Nat'l Park and Preserve
23. Katmai Nat'l Park and and Preserve
24. Kenai Fjords Nat'l Park
25. Kobuk Valley Nat'l Park
26. Lake Clark Nat'l Park and Preserve
27. Noatak Nat'l Preserve
28. Wrangell-Saint Elias Nat'l Park and Preserve
29. Yukon-Charley Rivers Nat'l Preserve

NATIONAL FOREST SYSTEM

30. Chugach Nat'l Forest
31. Tongass Nat'l Forest
32. Admiralty Island Nat'l Monument
33. Misty Fjords Nat'l Monument

BUREAU OF LAND MANAGEMENT

34. Steese Nat'l Conservation Area
35. White Mountains Nat'l Recreation Area
36. National Petroleum Reserve-Alaska
37. Utility Corridor

3 National Wild and Scenic Rivers (Outside Conservation System Units)

Public Lands under BLM management, which may be subject to selection as State or Native Lands

MAJOR MILITARY

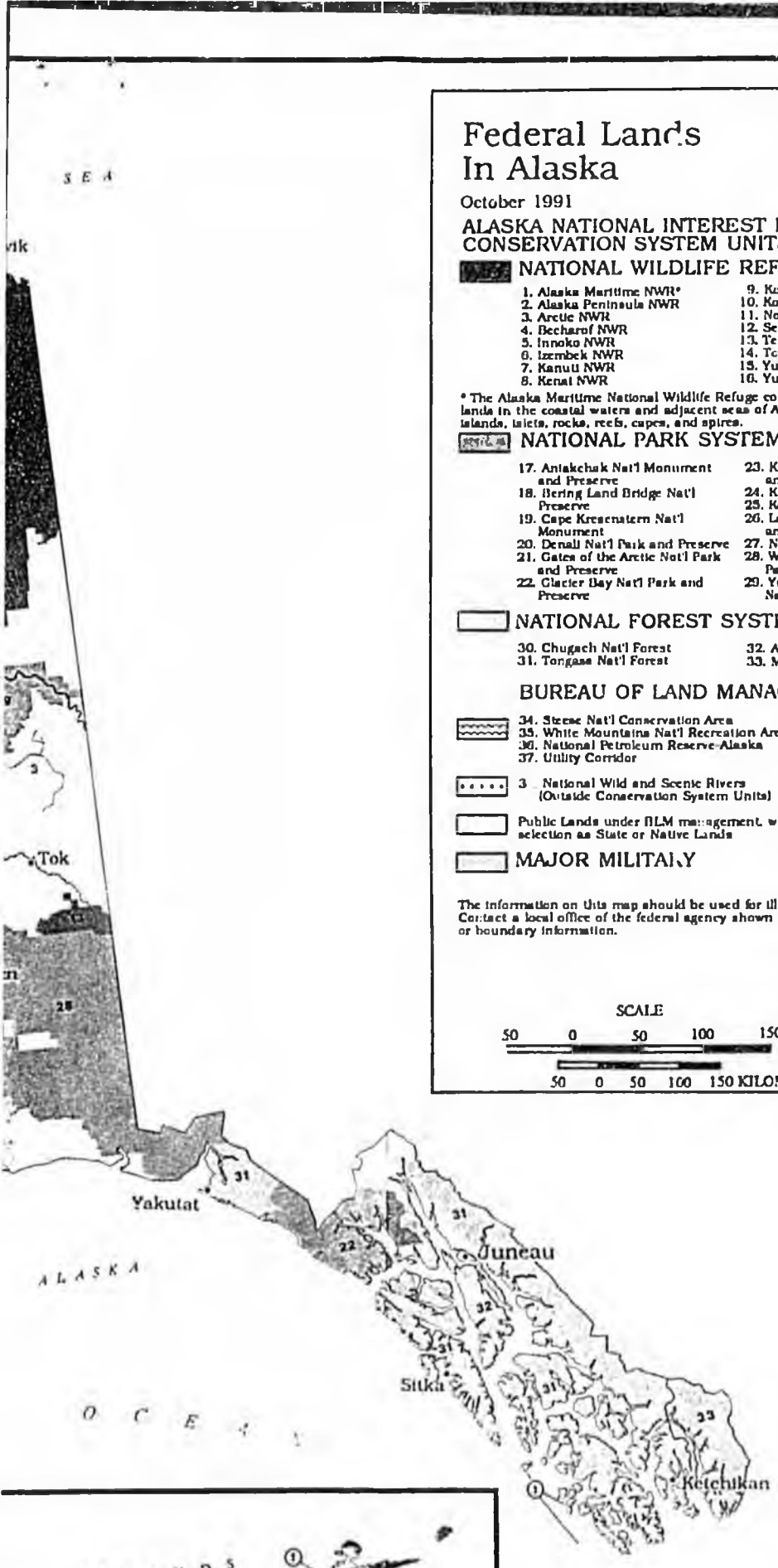
The information on this map should be used for illustrational purposes only. Contact a local office of the federal agency shown for precise land ownership or boundary information.

SCALE

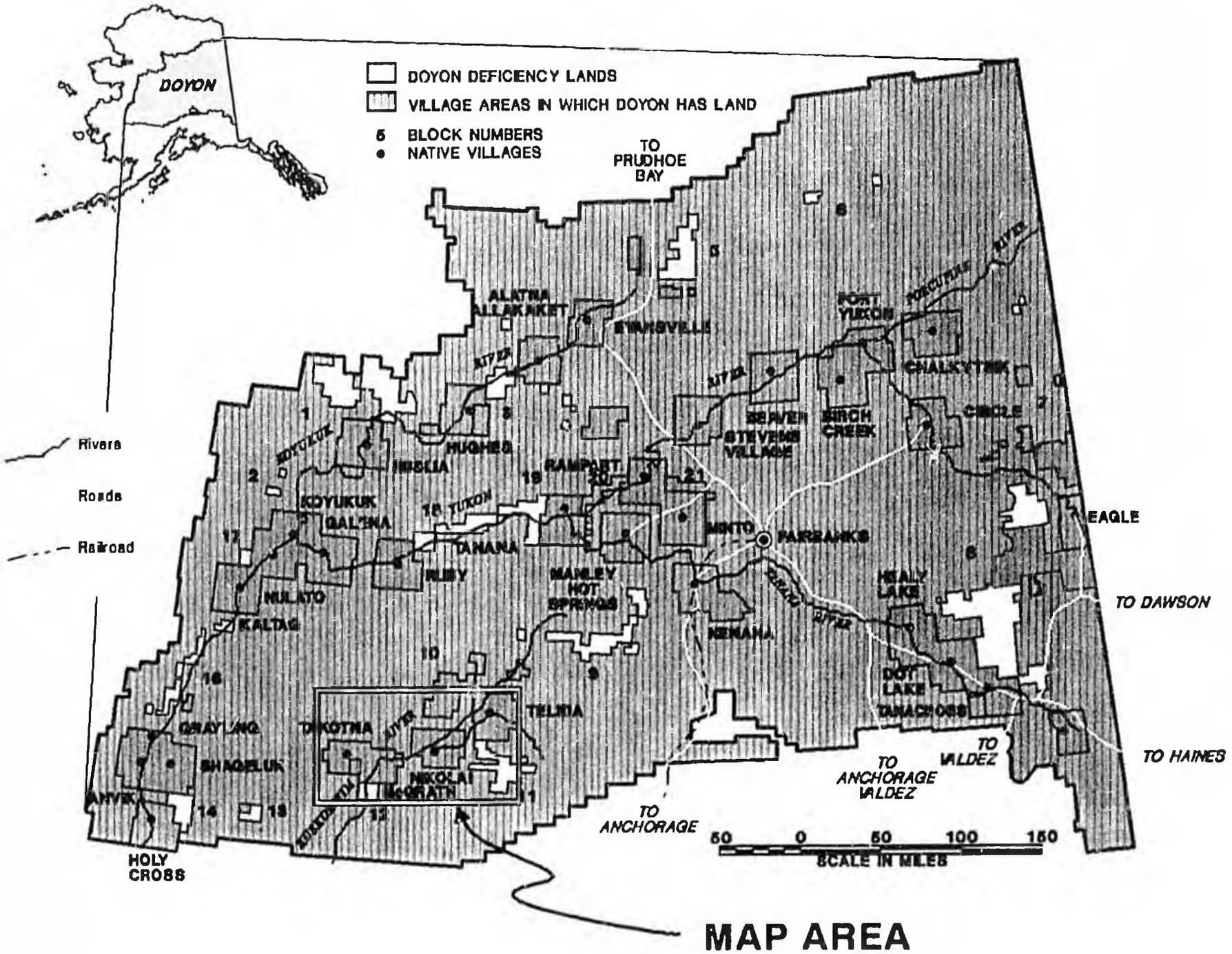
50 0 50 100 150 MILES

50 0 50 100 150 KILOMETERS

N



MAP 1


DOYON
DOYON DEFICIENCY LANDS
VILLAGE AREAS IN WHICH DOYON HAS LAND
5 BLOCK NUMBERS
NATIVE VILLAGES
TO PRUDHOE BAY
Rivers
Roads
Railroad
ALATNA
ALLAKAKET
STEVENS VILLAGE
FORT YUKON
CHALKYITSIK
BIRCH CREEK
CIRCLE
HUGHES
INSELIA
RAMPART
KOYUKUK
GALENA
TANANA
RUBY
MANLEY HOT SPRINGS
NULATO
KALTAG
NENANA
MINTO
FAIRBANKS
HEALY LAKE
EAGLE
TO DAWSON
DOT LAKE
TANACROSS
TO HAINES
TO VALDEZ
TO ANCHORAGE VALDEZ
TO ANCHORAGE
GRAYLING
DIKOTNA
TELIDA
NIKOLAI
McGRATH
ANVIK
HOLY CROSS
50 0 50 100 150
SCALE IN MILES

MAP AREA

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NUMBER: SB 130

FISCAL NOTE

Revision Date:
Department Affected: DOT&PF
Title: Approp: Fairbanks-Nome Transportation Corridor
BRU:
Sponsor: Sharp
Component:
Requestor: Sharp
Component Serial Number:

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY94	FY95	FY96	FY97	FY98	FY99
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING:	0	0	0	0	0	0
CAPITAL	165.0	0	0	0	0	0
REVENUE FUND SOURCE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

1002 FEDERAL RECEIPTS	0	0	0	0	0	0
1003 GF MATCH	0	0	0	0	0	0
1004 GF	165.0	0	0	0	0	0
1005 GF/PROGRAM RECEIPTS	0	0	0	0	0	0
1006 GF/MHTIA	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL FUNDING:	165.0	0	0	0	0	0

POSITIONS

FULL-TIME	1	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year (FY93) impact: $

ANALYSIS: (Attach a separate page if necessary)
The estimate of $165.0 for a reconnaissance study for a railroad to the Seward Peninsula was prepared by DOT&PF in response to a request. The level of work involved would identify an alignment(s) in which such a railroad extension could be developed.

Prepared by: Norm Piispanen
Phone: 451-2381

Division: Northern Region Planning
Date: March 2, 1993

Approved by Commissioner:
Frank O. Turpin
Phone: 465-3901

Agency: Department of Transportation and Public Facilities
Date: March 2, 1993

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SB 131

Department of Transportation and Public Facilities

POSITION PAPER

BILL NO: SB 131

APPROVED: [signature]

TITLE: Transportation Corridor: Fairbanks - Nome

DATE: March 3, 1993

DOT&PF is available to perform this work if authorized and funded. The information gained would be valuable in terms of identifying a future corridor and in protecting it during subsequent land management/land use planning exercises. The information would also be useful to future transportation planning and development exercises.

Development of access within the resulting corridor would support expansion of the state's resource-based industries. It would also serve surface transportation between Europe/Asia and North America.

The department is opposed to Section 1(C)(2).

For Fur [redacted] *65-3904.*

POSITION PAPER(S)

STATE OF ALASKA
OFFICE OF THE GOVERNOR

J. Horn

BILL ANALYSIS

DEPARTMENT	DIVISION	BILL NUMBER	SPONSOR
DOT&PF	Planning	SB 131	Sharp

SHORT TITLE OF BILL
Transportation Corridor: Fairbanks to Nome

DEPARTMENT POSITION
Supportive

PREPARED BY	DATE	COMMISSIONER'S SIGNATURE	DATE
Norm Piispanen	3/3/93		3-4-93

SUMMARY

OTHER AGENCIES AFFECTED BY BILL	CONSTITUENT GROUPS AFFECTED BY BILL
State/Federal Land and Resource Management Agencies	Interior/Seward Peninsula Residents Transportation Industry
ORGANIZATIONAL SUPPORT FOR BILL	**ORGANIZATIONAL OPPOSITION TO BILL**
Mineral Industry Chambers of Commerce Transportation Industry	Environmental Organizations Some Native Groups/Corporations

FISCAL IMPACT: ☐ NONE ☒ FISCAL NOTE ATTACHED

BACKGROUND/LEGISLATIVE INTENT

This bill addresses access to western Alaska, and through Alaska, between North Amercia and Asia/Europe.

ANALYSIS OF BILL/PROGRAM EFFECTS

This bill would result in identification of a multimodal right of way from Interior Alaska to the Seward Peninsula. Such a right of way could then be protected on public land; by reservation on State land, and by interim management on Federal land. It would facilitate transportation planning between Interior and Western Alaska. It could be developed, as needed to serve local and singular needs, while allowing for coordination and efficiency in satisfying long-term needs.

AMENDMENTS PROPOSED

None.

PLEASE ATTACH A SEPARATE SHEET FOR ADDITIONAL COMMENTS OR ANALYSIS

Alaska State Legislature

SENATOR
BERT SHARP
CHAIRMAN

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Senate Transportation Committee

SPONSOR STATEMENT

SB - 130 and SB -131

By: Senator Bert Sharp

SB-130 and SB-131 are intended to initiate preliminary action necessary to properly review and identify the best options for the establishment of a transportation/utility corridor from the Interior's existing transportation distribution hub to the western area of the Seward Peninsula.

The futures of those Alaskans residing north of the Alaska Range will require expansion of our existing transportation infrastructure. With the recent completion by the State of Alaska of its remaining land selections allotment, the major land ownership patterns are now discernible.

The legislation would direct the Department of Transportation to do aerial reconnaissance photography and interpretation. This work will identify apparent land ownership of areas within transportation corridors to be delineated and which offer the best cost effective options to access this vast resource rich area of our State.

The fiscal note is very modest and would authorize that most important first step. A step that will move us toward a more positive economic future for this large portion of Alaska.

STATE OF ALASKA
1993 LEGISLATIVE SESSION

BILL NUMBER: SB 131

FISCAL NOTE

Revision Date:
Title: Transportation Corridor: Fairbanks-Nome

Department Affected: DOT&PF
BRU:

Sponsor: Sharp
Requestor:

Component:
Component Serial Number:

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY94	FY95	FY96	FY97	FY98	FY99
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING:	0	0	0	0	0	0
CAPITAL	4,090.0	3,210.0	0	0	0	0
REVENUE FUND SOURCE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

1002 FEDERAL RECEIPTS	0	0	0	0	0	0
1003 GF MATCH	0	0	0	0	0	0
1004 GF	4,090.0	3,210.0	0	0	0	0
1005 GF/PROGRAM RECEIPTS	0	0	0	0	0	0
1006 GF/MHTIA	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL FUNDING:	4,090.0	3,210.0	0	0	0	0

POSITIONS

FULL-TIME	25	25	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year (FY93) impact: $

ANALYSIS: (Attach a separate page if necessary)
Funding amount is based on an estimate by DOT&PF (included in HB 182). Work would require hiring several survey crews, substantial air charter, and extensive GPS program.

Prepared by: Norm Piispanen — Phone: 451-2381

Division: Northern Region Planning — Date: March 3, 1993

Approved by Commissioner: Frank G. Turpin — Phone: 465-3901

Agency: Department of Transportation and Public Facilities — Date: March 3, 1993

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For furth[illegible] slative Office

FISCAL NOTE(S)

SB

135

WALTER J. HICKEL, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

NORTHERN REGION, REGIONAL DIRECTOR

2301 PEGER ROAD
FAIRBANKS, ALASKA 99709-5316
PHONE: (907) 451-2210

December 30, 1992

Re: Railroad Extension
Project R-51034

Red Swanson
113 West 5th Street
Juneau, AK 99801

Dear Mr. Swanson:

You recently requested an estimated cost to acquire the right of way for the Alaska Railroad extension to the Canadian border. I understand your intent was to use this estimate as a basis for obtaining a legislative appropriation to proceed with the project.

When this project was mothballed in 1982, the estimated cost for right of way acquisition was approximately $3.2 million. This was based on a 300' wide right of way for 270 miles which resulted in a proposed acquisition of nearly 10,000 acres. The majority of the land to be acquired was under the control of the Department of Natural Resources (DNR) or the Bureau of Land Management (BLM) and no compensation would have been required to obtain the right of way. Most of the estimated budget would have been used to develop right of way plans, appraise and acquire the private parcels and perform miscellaneous project-related right of way tasks.

Since 1982 a good deal of the lands to be acquired from BLM and some of the lands to be acquired from DNR have been conveyed to private parties. These lands and improvements, which now would have to be appraised and acquired, along with the expected appreciation in real estate values and the cost of doing business, represent a significant increase in the cost of securing the right of way.

In the normal process of project development we regularly prepare estimates for acquisition. These estimates involve a review of the land title status, an estimate of the value of the land and improvements, an estimate of the cost to appraise, acquire and condemn if necessary, and possibly an estimate to relocate homes and businesses. By the time we are asked to prepare these estimates, funding is generally available for the required staff time.

With regard to the preparation of an estimate for the Railroad Extension Project, we are faced with a project which is several orders of magnitude larger than our typical project and without the funding necessary to perform the task adequately. The size of this project also puts it beyond the realm of tasks that can be performed with our limited overhead budget. Therefore, if we are to prepare an estimate that is anywhere close to reality, it will be necessary for you to secure an appropriation which will allow us to do this preliminary evaluation. Upon receipt of sufficient funding (approximately $7,500 to $10,000) we can begin scheduling the staff time necessary to proceed.

Sincerely,

John D. Horn, P.E.
Regional Director
Northern Region

jfb

Alaska State Legislature

SENATOR
MIKE MILLER
P O Box 55094
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(907) 488-0862

Senate District Q

While in Juneau
State Capitol
Juneau, Alaska
99801-1182
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Senate

SPONSOR STATEMENT

Senate Bill 135 would appropriate $10,000 to the Department of Transportation & Public Facilities to estimate the cost of acquiring private land for a railroad right-of-way from Eielson Air Force Base to the Canadian border.

In 1977 the Legislature directed the department to select a proposed utility corridor and identify a right-of-way for extension of the railroad. A report of that work, the Alaska Railroad Extension Route Selection was done in 1979. A follow up 1982 report includes an update of the route description and an environmental assessment of the route.

The legislation before you would provide adequate funding for an update the title work that was done in 1979 from which a new acquisition estimate can be derived. A current estimate is necessary due to recent completion of land selections and conveyances since the 1982 DOT report.

The cost of the original 1982 title work was $66,700 and the right-of-way acquisition estimate at that time was $3.175 million.

Department of Transportation and Public Facilities

POSITION PAPER

BILL NO: SB 135 APPROVED:

TITLE: AK Railroad Extension Study DATE: March 4, 1993

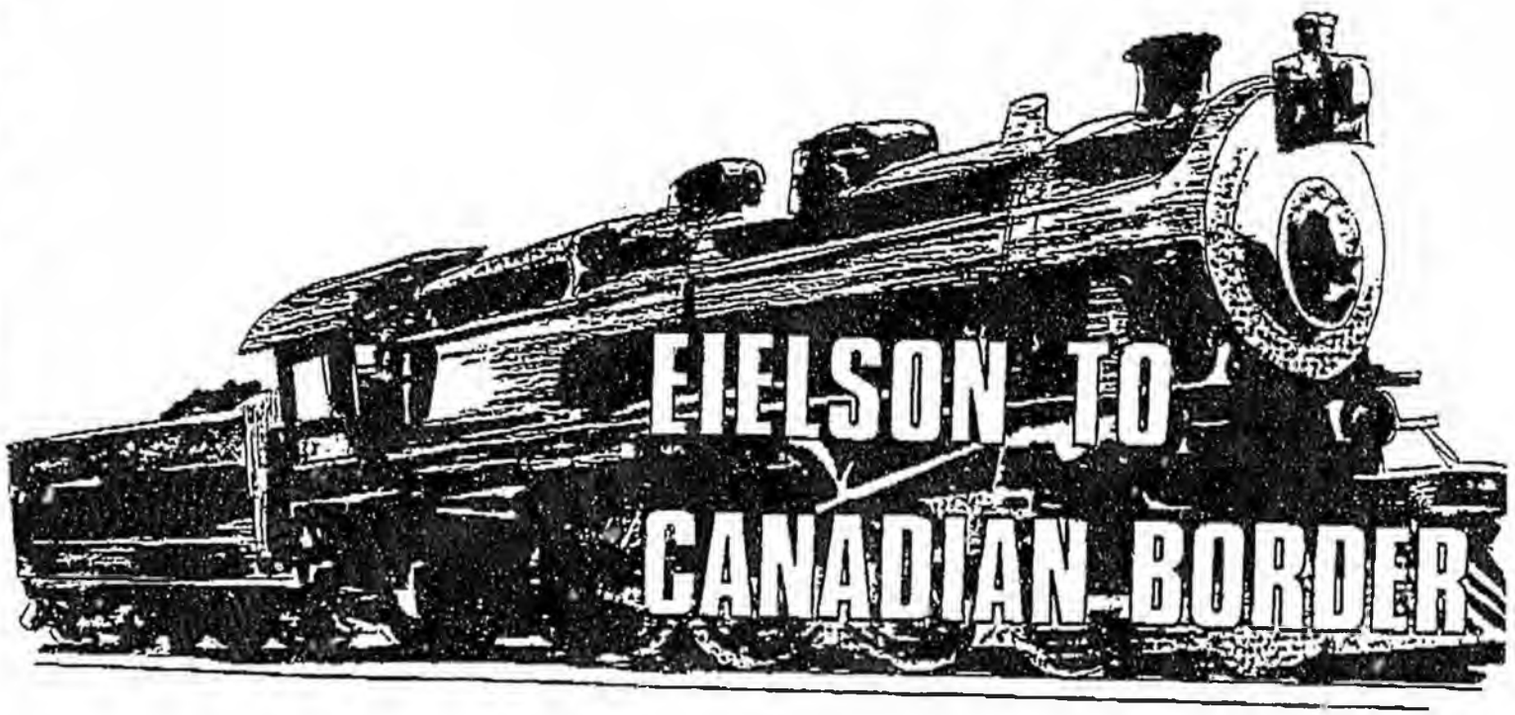
DOT&PF supports this effort to update the cost figures for acquiring a railroad right-of-way from Eielson to the Canadian Border. Native land selections have been completed, and conveyances have progressed to the point that an accurate assessment can now be made of how much private land would be involved and what its value is.

As long as a rail link through Canada to the Lower 48 is a viable future concept, there is significant value to keeping existing location and right-of-way information current. Such information is valuable to any decision making process involving the possible railroad extension.

For Further Information contact Katy McHugh at 465-3900.

ALASKA RAILROAD EXTENSION

ROUTE SELECTION PROJECT X20089



EIELSON TO CANADIAN BORDER

STATE OF ALASKA
DEPT. OF TRANSPORTATION
& PUBLIC FACILITIES

JULY 1979

APRIL 1982 UPDATE

ALASKA RAILROAD EXTENSION

ROUTE SELECTION

PROJECT X20039
& R51033

EIELSON TO CANADIAN BORDER

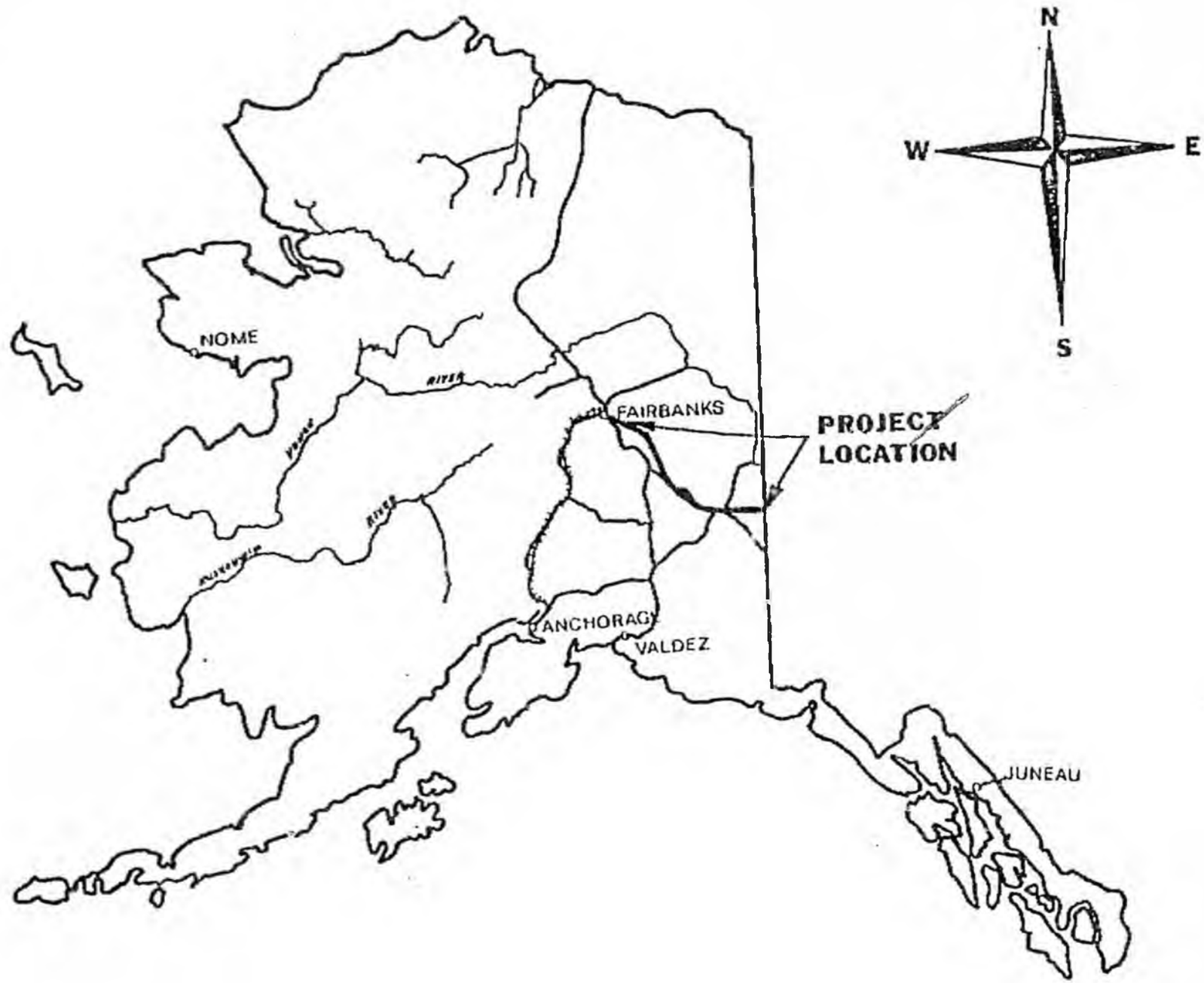
STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION

& PUBLIC FACILITIES

INTERIOR REGION

APRIL 1982


N
W
E
S
NOME
FAIRBANKS
PROJECT
LOCATION
ANCHORAGE
VALDEZ
JUNEAU

INTRODUCTION

In the spring of 1977 the first session of the tenth Alaska Legislature passed House Bill 47 dealing with a proposed extension of the Alaska Railroad to the Canadian Border. House Bill 47 directed the Interior Region of the Alaska Department of Transportation and Public Facilities to delineate a proposed utility corridor for extension of the railroad and to identify a proposed railroad right of way.

Over the following two years the Interior Region Department of Transportation and Public Facilities worked on the problem of selecting a route for the proposed rail extension. The basic alternatives under consideration were presented in a Preliminary Route Study in April 1978. The final route selected was presented in a report dated July, 1979. The latter report, Alaska Railroad Extension Route Selection, has been widely distributed. Some segments of right of way along the recommended line have already been reserved through State land disposal areas.

A July, 1981 amendment of House Bill 47 requires the Department to prepare an Environmental Assessment of the recommended railroad route and to move to acquire the necessary right of way. A copy of House Bill 47 as amended is included in the appendix of this report. The amended legislation also includes an April 2, 1982 deadline for a "complete legal description" of the proposed railroad right of way.

A legal description of the route had already been done at the time of the 1979 report. However, since that time, there have been numerous adjustments to the route location. The purpose of this report is to update the route description in conformance with the legislation and to discuss the environmental work and right of way acquisition which will be continuing for many months.

The precise location of the proposed railroad route is presently described in terms of Alaska State Coordinates derived from photogrammetric mapping. The mapping is based on a field survey performed in 1978. The updated coordinate data is not included in this report but is on file at the Interior Regional Department of Transportation and Public Facilities and with the Department of Natural Resources, Division of Lands. The route has been plotted on USGS quadrangle maps at a scale of 1 inch = 1 mile. A set of these maps is included in the back of this report.

The basic route corridor has not been changed since 1979; however, adjustments to the original alignment have been made to reduce impacts on private property, to conform to proposed State land disposals, to accomodate the proposed natural gas pipeline and to place the route on more favorable foundations.

In 1978 and 1979, photogrammetric mapping of the proposed railroad route was produced. The mapping covers a 500 ft. wide strip at a scale of 1 inch = 100 ft. Some of the recent alignment changes have shifted the recommended centerline out of the mapped area. Additional mapping to cover these line changes would have to be acquired before design work is done but this additional mapping will not be necessary to complete the work required by the amended House Bill 47.

The route recommended in the 1979 report had a gap of about 35 miles in the Cathedral Bluffs to Tok area that was not precisely defined because of problems with the control survey across Tanacross lands. The control work has since been completed and the area has been mapped and the route defined to the same accuracy as the rest of the project.

Work on the Environmental Assessment of the proposed corridor is under way and is expected to be completed some time in 1982. The Environmental work will include coordination with appropriate agencies as well as an opportunity for public input.

CRITERIA FOR ROUTE SELECTION

The location of the railroad was the key to defining the utility corridor required by House Bill 47 since the grade and alignment constraints on a railroad are much more restrictive than for any other transportation mode or utility installation. For this reason, the Department concentrated work on the selection of a railroad location. In effect, a utility corridor has been placed around the best available railroad alignment, rather than trying to place a railroad route within a pre-selected corridor.

In order to identify the best available railroad location, several factors were considered:

1. Design Standards The railroad was located so as to meet grade and alignment standards which are commensurate with the transcontinental rail system standards. The Engineering Department of the Alaska Railroad provided the following recommendations for design standards.

Grades

1%	desirable
1.7%	maximum

Curvature

3° valley terrain	desirable maximum
6° mountainous terrain	" "
10° absolute maximum	

2. Foundations and Materials An attempt was made to locate the railroad on the best available foundation and in areas where construction materials were readily available. Good foundations are essential in keeping construction and operating costs to a minimum. Funding and time limitations did not allow a program of subsurface investigations and soils analysis. Materials investigations consisted primarily of aerial photo interpretation.

3. Safety Potentially hazardous situations such as highway grade crossings were avoided wherever possible. The route described in this report crosses the Richardson Highway one time and the Alaska Highway three times.

4. Service to Communities The railroad route was located so as to serve local communities and enhance local development plans while still maintaining the "through" nature of the route. Early in the reconnaissance study, meetings were held with military personnel at Fort Wainwright, Eielson AFB, Fort Greely and also with the Delta Junction Chamber of Commerce, Citizens of Tok, Alaska Department of Fish and Game and the State Division of Lands. Input from these meetings directly affected the selection of a railroad route through developed communities.

5. Environmental Concerns The scope and funding of the original study did not provide for a full Environmental Assessment of railroad construction and operation. However, the Department's Environmental Section as well as other appropriate agencies were consulted in order to maintain an awareness of environmentally sensitive areas and issues which might affect the selection of a railroad route. As mentioned earlier, the amended House Bill 47 requires a formal Environmental Assessment and this work is now in progress.

6. Right of Way The railroad alignment was placed on public lands wherever possible so as to minimize the costs and impacts of right of way acquisition.

7. Costs Costs of rail construction were kept in mind and minimized where possible. However, the study does not include an estimate of construction costs for the proposed rail project.

ROUTE RECONNAISSANCE

The information on the following three pages is an excerpt from the 1979 report describing the steps leading to the selection of the recommended railroad route.

Previous developments, (highways, pipelines, communications systems, airports), have established a general transportation corridor from the present terminus of the Alaska Railroad at Eielson Air Force Base southeast to the Canadian border. This corridor can be described in broad terms as the valley of the Tanana River or in more narrow terms, as the route of the Richardson and Alaska Highways.

A study of topographic and land status maps of eastern Alaska readily shows that the terrain and the associated economic and environmental considerations effectively rule out any general corridor other than the Tanana River Valley. This route study was confined to the Tanana Valley except for the easternmost 50 miles which follow the Ladue River down to the Canadian border.

The Ladue border crossing was first proposed in 1942 when the U.S. Army Corps of Engineers surveyed a route for a rail connection to Alaska. Interest in that project faded after the end of World War II, but the route chosen at that time has been reaffirmed many times in subsequent years. The Ladue crossing directs the Yukon Territory segment of the railroad route into the broad valleys of the White, Yukon, Pelly and Liard rivers. The valleys provide a fairly direct route to Watson Lake, Y.T., through which the connecting link to the existing transcontinental rail system will pass.

It should also be pointed out that the Ladue River border crossing allows the easiest and most direct route to Whitehorse, Y.T., should Canada decide to run the rail connection through that city. This study considers only the Ladue River border crossing.

The first step in selecting a railroad route was to study topographic maps and to identify on these the route possibilities that appeared to merit further study by means of aerial photography.

From the map study, it was determined that the 108 mile section from Delta Junction to Tok was adequately covered by aerial photographs taken in September 1976 for the purpose of highway reconnaissance. Likewise, the 80 mile segment from Tok to the Canadian border via the Ladue River had previously been photographed in a 1973 rail study. This left only the 75 mile segment from Eielson to Delta Junction lacking in reconnaissance photo coverage. Photographs of this area were scheduled for the fall of 1977.

Map study of the Eielson to Delta Junction area revealed several possible routes including an alignment along the north bank of the Tanana River and several alternatives south of the river. In September 1977, these routes were investigated by a fixed-wing overflight involving the Regional Geologist, Hydrologist and Reconnaissance Engineer. After this investigation, three routes were chosen as the most promising rail locations, one north of the Tanana River and two south of the river.

All three of these routes were subsequently photographed in color on October 1, 1977. All of the aerial photos mentioned above are at a scale of 1 inch = 1000 ft.

Through the winter of 1977-78, considerable time was spent studying the reconnaissance photographs in an effort to select a preliminary alignment. The preliminary route was then studied in detail and refined in 1978 and 1979. Photogrammetric mapping was chosen as the most effective means of selecting a precise route for the railroad. This method allowed a high degree of latitude in final route selection and was adaptable to the time and funding constraints which had been placed on the project. The mapping work was assigned to two consulting firms which were already under contract to provide mapping services to the State of Alaska. The Department also engaged consultants to do the control survey work necessary for accurate mapping.

In all cases, coordinate positions and azimuths were originated from existing Geodetic Survey, U.S. Geological Survey, U.S. Army Corps of Engineers, Bureau of Land Management and two stations established by the International Boundary Commission. The control traverses or nets were also closed with respect to other stations of the same origin or previously established monuments which had been derived from them. After running a field data traverse through the network from geodetic station to station, a compass adjustment was made to position all intermediate points. The thus derived positions of each new traverse or control station were anticipated to be within 1:30,000 accuracy relative to existing control. Actual field determinations have proven this to have been accomplished.

All vertical control was derived from existing U.S.C. & G.S. or U.S.G.S. Bench Marks. A more detailed discussion of the control survey is presented in a report prepared by the consultants upon completion of the survey work. That report also contains a listing of the positions of all control points.

As the Department received control data from the survey consultants, it was sent to the mapping consultants and the production of contour maps began by mid-summer 1978. This was accomplished at a scale of 1 inch = 100 ft. with a 2 inch contour interval. The band of mapping varied from 500 ft. to 800 ft. Over most of the length of the project a 500 ft. wide strip centered on the preliminary route was mapped. In some areas of rough terrain, a wider strip of mapping was requested to allow more flexibility in selecting a final railroad route.

As the mapping was received, the Department placed a railroad centerline on it. Occassionally, the line is tightly controlled by topography. This is most obvious when climbing from the Tanana River to the Ladue Summit. A 1% "Grade Contour" was laid out on the mapping by starting at the Ladue Summit and working down to the highway on the Tanana side. A railroad centerline was then drawn to get the best "fit" to this grade contour. The result is a railroad centerline with a sustained 1% grade and continuous curvature for a distance of about 10 miles.

As the alignment was placed on the mapping, the Regional Geologist and Hydrologist reviewed it and recommended needed changes. When the most desirable "fit" was achieved, the State Plane Coordinates of the tangent intersections were scaled off the contour maps and bearings and distances of the tangents were calculated, as well as all curve data. All of the alignment and coordinate data has been tabulated and is on file at the Interior Regional Office of the Department of Transportation and Public Facilities.

RIGHT OF WAY

A basic right of way width of 300 ft. is recommended for the railroad route. This will be ample for rail construction and still allow a buffer zone between the tracks and adjacent properties. Additional right of way could be needed for facilities such as switching yards, maintenance buildings or depots associated with the railroad. The need for such facilities has not been addressed to date and would be handled during the design phase of the rail project. Material sources for construction would also require lands in addition to the basic 300 ft. right of way.

For right of way purposes the railroad centerline has been described with circular curves in order to simplify the property descriptions. The railroad will actually be built with spiral curves which will deviate slightly from the right of way centerline.

Additional field survey work tying section corners and property corners to the original control survey will be necessary before right of way plans and plats can be produced. Some of these property ties have already been obtained and the rest will be acquired during the 1982 work season.

The Department plans to contract with a consultant to do the necessary title research work. This work will be followed by appraisals, negotiations and acquisition under the direction of Department personnel. Large right of way projects such as this typically involve some condemnation proceedings. The right of way process for the entire route is expected to extend over a period of two to three years. The intent is to begin at the Nelson end of the project and work toward the Canadian border.

Some funding has already been earmarked for property acquisition but additional funds will be required to complete acquisitions along the entire route. As presently laid out, the proposed route would involve no buildings but would require portions of numerous private holdings. The bulk of the route lies on State, military or native corporation lands.

ENVIRONMENTAL ASSESSMENT

The Environmental Assessment for the proposed railroad extension was initiated in early November, 1981, with written contact made to numerous State, federal and local government agencies as well as individuals and organizations interested or affected by the project. Comments and questions on the project were solicited. On November 24, 1981, an interagency scoping meeting was conducted to identify major issues of concern and coordination necessary to address the issues and process the proposal. The scoping process was followed by general data compilation and mapping.

An Alaska Heritage Resource Survey Inventory of the corridor was requested from the State Historic Preservation Office. The State Historic Preservation Office indicated in a follow-up phone contact that they did not have the manpower for an inventory. Department of Transportation and Public Facilities personnel subsequently mapped the corridor cultural resources using information from the State Historic Preservation Office in Anchorage. SHPO later responded with abbreviated inventory information and a recommendation for a preconstruction cultural resource survey.

Information on the extent of mining claims in the Ladue River Valley was provided by the Right of Way Section.

The Soil Conservation Service was contacted to determine the potential for project conflict with prime or unique farmlands. No conflict exists.

General geological hazards of the corridor were mapped by the Geology Section.

Contact with Northwest Alaska Pipeline Company provided information on sensitive wildlife areas and vegetation types in a narrow corridor surrounding the proposed gas pipeline; parts of the data may prove useful for site specific areas of railroad alignment.

Status plats have been researched at the local BLM Office to identify and map land classifications in the railroad corridor area, but further classification research is needed.

Several offices within the Department of Natural Resources have been contacted. State park lands within the corridor have been identified. Proposed disposals of State subdivision, remote and agricultural lands through 1984 have been mapped. Concurrent research for the Tanana Basin Area Plan has provided preliminary data on recreation, forestry and agricultural resources in the corridor area. This information has been mapped.

Considerable contact with the Department of Fish and Game (field biologists at three offices, habitat protection) resulted in detailed information on sensitive fish and wildlife areas within the railroad corridor. Some extremely sensitive areas are present and careful mitigation may be required (e.g., peregrine falcon habitats, the most important chum

spawning location in the State, the Delta Junction Bison Range).

Interpretation and evaluation of the above base information, including document pre-draft writing, is ongoing. Research into additional environmental elements remains to be done; noise, air quality and visual resource information is needed.

A draft of the Environmental Assessment should be available by June and the final document should be completed before the end of 1982.

ROUTE DESCRIPTION

An existing spur of the Alaska Railroad runs 30 miles southeast from Fairbanks to Eielson AFB. The proposed railroad extension takes off of this spur at the south end of the bridge spanning the floodway for the Chena River Flood Control Project. This beginning point (Mile 0), is 5 miles northeast of Eielson near Moose Creek Bluff.

From Mile 0 the proposed route runs southeast between the Richardson Highway and the Tanana River traversing old river bars and crossing numerous slough channels. The route is mostly on State-owned lands for the first six miles. In the area from Mile 1.4 to Mile 5.3, some large parcels are scheduled to be transferred to private agricultural use in the State's June 1982 land disposal program. A 300 ft. right of way will be reserved across the parcels traversed by the proposed railroad extension.

The route remains between the Richardson Highway and the Tanana River up to Mile 20. There are numerous private parcels and homes in this area. Several changes in the alignment have been made to reduce the impacts on these properties. These changes included the introduction of more curvature into the alignment and the shifting of the route across sloughs onto old river bars. At Mile 18.5, the railroad route has been relocated in order to avoid private homes. This location will require bank protection but will provide these homes with protection from erosion which has been severe at this site in recent years.

Near Mile 20, the proposed route turns up the Salcha River to a crossing one mile downstream from the highway bridge. From this point, the route heads toward the Tanana River crossing at the west slope of Flag Hill near Harding Lake.

The railroad route crosses the Tanana River at Mile 24.4. This crossing was chosen early in the route study as by far the best available Tanana crossing and was subsequently considered a fixed point in the route. At Flag Hill, the main river channel is fixed against the hillside and the total width of the active river channel is about ½ mile. In most other areas, the Tanana's braided channels are continually shifting over a channel width of 1 to 1½ miles.

After crossing the river, the route continues up the Tanana valley traversing the flood plain ½ to 1 mile away from the river. From Mile 25.2 to Mile 30.1, the route is located military land (Fort Wainwright). After leaving Fort Wainwright, the route traverses State lands for the next 35 miles.

At Mile 36.5 the route turns south up the Little Delta River to reach secure site for crossing that stream. The route then continues easterly paralleling the Tanana River for the next 12 miles. At Mile 50, the route again turns away from the Tanana in order to reach a favorable site for crossing Delta Creek. The route crosses Delta Creek at Mile 52.8 and then continues easterly passing south of a three mile long

ridge. There is a Federal recreation withdrawal along Clear Creek which runs along the north side of this same ridge and the railroad route has been placed so as to avoid this withdrawal. From the east end of the ridge, (Mile 56.5), the route runs along low terraces about ½ mile south of Clear Creek to the headwaters of the creek near Mile 63.

Near Mile 67, the route passes through some private agricultural lands near the confluence of the Delta and Tanana rivers. The route then runs southeast through State lands along the Delta River.

The route turns across the Delta River at Mile 75 and then runs upstream along the east bank of the river for two miles through the Delta Junction area. The location of the railroad is intended to provide bank protection in an area where stream erosion has been a problem in recent years.

At Mile 77.5, the route turns away from the Delta River and runs along the east bank of Jarvis Creek. The route is situated on military lands from Mile 78 to Mile 88.5. At Mile 82, the route is near the developed area of Fort Greely although a bridge across Jarvis Creek would be necessary to provide direct access to the Fort. From Mile 82 the route turns easterly remaining on Fort Greely lands for the next 6.5 miles as a means of avoiding the private property along the Alaska Highway.

After leaving Fort Greely, the route runs east to the vicinity of the Alaska Highway and then closely parallels the highway for the next four miles. At Mile 99, the route makes an "S" curve in order to cross the highway at an acceptable angle. The route then parallels the highway on the north side for the next 11½ miles. The railroad route has been located so as to be compatible with the route for the proposed Northwest Alaska Natural Gas Pipeline which also parallels the highway through this area.

At Mile 111.5, the railroad route bends around a proposed gas line compressor site and then departs from the vicinity of the highway and runs along the bank of the Tanana River from Mile 114 to Mile 120 at Johnson River. A route higher on the hill was considered on the approach to Johnson River but the route adjacent to the Tanana was determined to offer the best grades and foundations even though it will encroach on the river in a few places in order to avoid steep, unstable hillsides.

The railroad route crosses the Johnson River near its mouth and then returns to the vicinity of the Alaska Highway at Mile 123.5. On the accompanying map, the railroad route appears to cross the highway; however, the highway has been reconstructed through this area and has been shifted to the south. The railroad location actually remains north of the new highway alignment and is parallel to it from Mile 123.5 to Mile 128.3.

The railroad route swings away from the Alaska Highway at Mile 130 near Berry Creek and again at Mile 133 in order to maintain the required grades. In the vicinity of Mile 135, the alignment has been adjusted to accomodate a new State subdivision.

From Mile 135 to Mile 145, the railroad route closely parallels the highway. The highway and railroad rights of way actually overlap in the vicinity of Dot Lake in order to minimize the total right of way through the village area.

From Mile 145 the railroad route pulls away from the highway in order to avoid the rough terrain traversed by the highway just north of the Robertson River. The railroad route runs east of the rough terrain and then crosses the Robertson River just above its confluence with the Tanana River. The route remains close to the Tanana River for the next 12 miles in order to maintain acceptable grades through the Cathedral Bluffs area.

From Mile 165, the railroad turns away from the river and converges with the highway near Moon Lake (Mile 171). For the next six miles the route closely parallels the highway.

At Mile 177, the railroad departs from the vicinity of the Alaska Highway and proceeds in a nearly due east direction through the Tanacross and Tok areas. The route is located on section lines for 7 miles to Mile 188.5, two miles north of Tok. From this point, the route turns southeast and gradually converges with the highway.

The route passes north of the Coast Guard installation at Mile 195 and enters Tetlin Village lands at Mile 195.5. The route is located on Tetlin lands for the next 21.5 miles.

At Mile 199.4, the railroad route crosses the Alaska Highway and then crosses the Tanana River just upstream from the highway bridge. The route passes ½ mile south of Tetlin Junction and remains south of the highway to Mile 207. At this point, the route again crosses the highway and begins the climb to the Ladue Summit. This section entails ten miles of sustained 1% grade and sharp curves. The Ladue Summit is the highest point on the proposed railroad route at 2300 ft. above sea level.

From the Ladue Summit, the rest of the proposed route is located on State selected lands. On the Ladue River side of the summit, maximum grades and curves are not necessary. The route reaches the valley floor at about Mile 221 at an elevation of about 2100 ft. From this point on, the route follows gentle grades and alignment down the Ladue Valley to the Canadian border.

The Ladue Valley is relatively narrow so that there is not a wide choice of route locations. For the most part, the railroad route follows along the north side of the valley in order to gain the advantage of a southern exposure. The route reaches the Alaska-Yukon border at Mile 271.