ALASKA LEGISLATURE COMMITTEE FILES 1983-1984

3094 SSA HB 110 8672 3094

TELEGRAM

ALASCOM, INC.
PHONE: [illegible]
JUNEAU, AK 99802

VET

12038 NL FAIRBANKS ALASKA 76 02-10 428P YST

PMS VIC FISHER CHAIRMAN

THE SENATE STATE AFFAIRS COMMITTEE 0831

JUNEAU AK 99801

PLEASE SUPPORT FUNDING OF DNR ALASKA AVALANCHE SCHOOL IN HD110. HAVING TAKEN THE COURSE, I KNOW IT IS TAUGHT IN A HIGHLY PROFESSIONAL MANNER. THE INFORMATION AND ATTITUDES PRESENTED IN IT HAVE SPREAD THROUGHOUT THE INTERIOR MOUNTAINEERING COMMUNITY, RESULTING IN FEWER AVALANCHE RELATED MISHAPS. THIS COURSE IS AN AFFORDABLE WAY TO REDUCE THE NUMBER OF EXPENSIVE MOUNTAIN RESCUES. PLEASE BE ADVISED THAT MANY MOUNTAINEERS IN THE INTERIOR STRONGLY SUPPORT THIS FUNCTION OF STATE GOVERNMENT.

JOHN W KELLER, PAST PRESIDENT, ALASKA ALPINE CLUB

1801 FEB 10 PM 6 46

ST

February 9, 1984

Senator Vic Fisher
Pouch V
Juneau, Alaska 99811

RE: House Bill 110, Alaska Avalanche School

Dear Senator Fisher:

Doug Buchanan, Alaskan Alpine Club, does not speak for a majority of Alaskan mountaineers, but only for a very small minority based in Fairbanks.

Mr Buchanan has tried for years, unsuccessfully, to organize and persuade climbers to revolt against all national and state park regulations pertaining to access and registration, particularly in Denali State Park (Mt McKinley). His voluminous and monotonous anti-parks rhetoric appeared in several national mountaineering publications, but his tirade became so ridiculous that "Climbing" Magazine now refuses to print any additional letters or comments pertaining to his unsupportable claims against the park systems.

The Alaska State Parks' Alaska Avalanche School provides an invaluable service and is the main source for Alaskans interested in avalanche awareness and backcountry hazard evaluations. It is staffed by dedicated professionals working with a limited budget. Avalanche Schools are available at a nominal fee for students and courses are held in various locations to further reduce participant costs. With ever growing numbers of backcountry users, an awareness of potential hzards will insure reduced rescue costs and hopefully save a few lives. Mr Buchanan also heads a mountain rescue group; perhaps he enjoys recovering frozen bodies from avalanches.

As past president of the Mountaineering Club of Alaska and past Section Chairman of the Alaska Section of the American Alpine Club, and as a recent participant of the Avalanche School, I urge you to support House Bill 110.

Sincerely,

John R Dillman

John R Dillman
2101 West 29th Avenue #26
Anchorage, Alaska 99503
279-1246 or 274-7636

HB 110

Kelly

Alaska State Legislature

Senate Committee on State Affairs

Vic Fischer, Chair • Pouch V
Juneau, Alaska 99811
(907) 465-4954

Official Business

SENATE STATE AFFAIRS COMMITTEE

MEETING SCHEDULE

February 13, Monday 3:00 pm — Senate Finance Comittee Room, Capitol Building

Joint Committee Meeting — Senate State Affairs, Senate Resources, Senate Labor & Commerce Committees

Overview of the Alaska Power Authority

Feb 14, Tuesday 3:00 pm — Butrovich Room, Capitol Building

HB 110 - AVALANCHE

SB 220 Establishing Capital Projects Advisory Commission

SB 345 Relating to Architects

SB 395 Creating Division of EEO

HB 478 Permanent Fund Distribution Program

HB 516 Appropriation for payment of 1983 fund dividends

February 16, Thursday — NO MEETING

February 17, Friday 1:30 pm — Anchorage, Leg. Affairs Info. Office, 1024 W. 6th Ave.

SB 345 Relating to Architects

Official Business

Alaska State Legislature

Senate Committee on State Affairs

Vic Fischer, Chair • Pouch V
Juneau, Alaska 99811
(907) 465-4954

MEMORANDUM

TO: Senate State Affairs Committee

FROM: Senate State Affairs Committee Staff

RE: HB 110 Avalanche and Fire Weather Forecasting System

DATE: February 9, 1984

HB 110 transfers the responsibility of avalanche and fire weather forecasting from the Department of Public Safety to the Department of Natural Resources.

AEIDC (Arctic Environmental Information and Data Center) does the forecasting for the state through funds distributed by RSA from the Division of the Alaska State Troopers. The bill does not change any functions of AEIDC. Currently, AEIDC forecasts both fire weather and avalanche conditions.

Fiscal Information

The passage of the bill would require the 275,000 dollars be transferred from the Department of Public Safety budget to that of the Department of Natural Resources (see enclosed fiscal notes).

Enclosed as back-up is:

A fiscal note from DPS.
A fiscal note from DNR.
A packet of back-up information provided by
Representative M.M. Miller's office.

SENATE STATE AFFAIRS COMMITTEE

Date received _____

Bill Number HB 110 Title _____

Fiscal Note	Position Paper	Date requested	From	Amount	Date Rec'd Note	Date Rec'd Paper
✓	✓	1/30/84	DNR			
✓	✓	2/1/84	DRS			

CONTACTS

Ned Fahrenquahn 2/1/84
AEIDC
Paul Cooper, DPS
Juneau Disaster office

Backup list

Provided By Bob Speed.
Fiscal note 2/7

HEARING INFORMATION

NOTES: Spoke to Denise Zacken 1/31/84. to get sponsor back-up.
Spoke w/ Bob Speed / BACK-up.

forecasting - look at all conditions. Occurs all the time.

Warning occurs only something. Warning is standard fire protection.

Is there any problem w/ State liability in having warning system. This bill would not affect State liability.

FINAL ACTION _____ DATE _____

1/84

ANALYSIS OF PROJECTED EXPENDITURES

FROM AEIDC'S POINT OF VIEW

TO BE CONSIDERED IN THE WRITE-UP OF ANALYSIS BY DNR

TO ACCOMPANY FISCAL NOTE TO HB110

PAST EXPENDITURES

The State of Alaska increased its involvement in the Alaska Avalanche/Fire Weather Forecast System (AA/FWFS) in December 1982 by the inclusion of the University of Alaska. At that time the Climate Center at the Arctic Environmental Information and Data Center (AEIDC), University of Alaska, began providing technical services to AA/FWFS in the form of two full-time meteorologists and one part-time glaciologist for weather forecasting and snow pack assessment. State funds in the amount of 144.1 K were transferred by RSA from the Department of Public Safety to provide services until the end of June 1983. Monies were sufficient to provide the technical services and purchase equipment in the amount of $11.5 K. Some 50 K remained in the state funds to go toward salaries, etc. in the 1983 fire season which began April 15, 1983.

For the 1983 fire season, AEIDC was asked to provide 2 temporary weather forecasters and 2 meteorological technicians in Fairbanks, and 2 temporary meteorological technicians in Anchorage. The additional temporary employees were paid for almost entirely from federal funds. Cost of AEIDC's operation in support of the 1983 fire season was pretty well covered with some 50 K of state funds and federal funds for the remainder.

WINTER 83-84 EXPENDITURES

The 1983-84 avalanche season is much more costly for AEIDC than the previous year for the following reasons:

(1) AEIDC operated the avalanche forecasting center from October 1 instead of December 15 as in the previous year. 2.5 mo. of salaries, staff benefits, travel, etc. were involved.

(2) AEIDC increased the expertise in the avalanche forecasting program with a full-time snow specialist to provide snow pack information for the daily forecast bulletins, coordination with other cooperators, public awareness, and avalanche training.

(3) AEIDC was also involved in startup of the season with the purchase of spare parts and some new meteorological observing equipment, calibrating and distributing meteorological instruments, and the preparation of an observing guide, and a season operations plan.

(4) Personal Services costs increased in FY 84 due to pay raises and higher staff benefits costs.

Some additional funds from the U.S. Forest Service have been promised, but not enough to offset the additional costs to AEIDC this season. We expect to enter the 1984 fire season with about 30 K less than was available in 1983.

PROJECTED 85 COSTS

The FY 85 program requires additional costs for the following:

(1) Add one scientist position to provide backup for the two full-time meteorologists in winter; this position would also replace one of the temporary meteorologist positions in the summer and will assist in the snow pack evaluation during the avalanche season. The position would receive 4 mos funding from AEIDC;

(2) Add 4 months of additional secretarial, editing, graphics, and computer expertise to be applied to the writing efforts in completing work plans, reports on applied research and operating procedures;

(3) Add one additional contractual paid observer during the avalanche season;

(4) Add 10 K for the purchase of new meteorological observing equipment to expand data coverage;

(5) Less federal money is expected in future years as the BLM's area of responsibility for forest fire control decreases in Alaska.

Future FY projected figures allow for increased costs due to an estimated 5% inflationary factor and the purchase of new meteorological observing equipment.

Draft, to be completed/revised by
DNR/DOT

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date:

REQUEST
Bill/Resolution No.: HB 110
Title: An act relating to an avalanche & fire weather forecasting system.
Sponsor: M.M. Miller
Requestor:
Date of Request:

FISCAL DETAIL
Agency Affected: DNR, DOTPF, DPS, UofA
Program Category Affected:
BRU, Program or Subprogram(s) Affected:

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING						
100 PERSONAL SERVICES	251793	321380	337444			
200 TRAVEL	24000	26000	27300			
300 CONTRACTUAL	52848	58310	61226			
400 SUPPLIES	7464	6700	7035			
500 EQUIPMENT		10000	11000			
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS	54932	88870	93314			
TOTAL OPERATING	391037	511260	537324			
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	275000	404260	430024			
FEDERAL FUNDS	116000	107000	107000			
OTHER						
TOTAL	391000	511260	537024			

POSITIONS:

FULL-TIME	6	7	7			
PART-TIME	1	1	1			
TEMPORARY	6	5	5			

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Phone:
Division: Date:

Approved by Commissioner: Date:
Agency:

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

AVALANCHE FIRE WEATHER FORECAST SYSTEM

Cost figures are provided by AEIDC; figures for DNR and DOTPF participation are guestimates only and need to be refined by DNR/DOT.

FY 84

		AEIDC	DNR	DOTPF	Federal Agencies	TOTAL
100	Personal Services	173,143	46,250	32,400	0	$251,793
200	Travel	9,000	15,000	0	0	24,000
300	Contractual	19,598	32,250	0	1,000	52,848
400	Supplies	2,464	5,000	0	0	7,464
500	Equipment	0	0	0	0	0
600		0	0	0	0	0
700		0	0	0	0	0
800	Miscellaneous*	54,932	0	0	0	54,932
	TOTAL					$391,037

FY 85

100	Personal Services	242,730	46,250	32,400	0	321,380
200	Travel	11,000	15,000	0	0	26,000
300	Contractual	23,060	32,250	0	3,000	58,310
400	Supplies	1,700	5,000	0	0	6,700
500	Equipment	10,000	0	0	0	10,000
600		0	0	0	0	0
700		0	0	0	0	0
800	Miscellaneous*	88,870	0	0	0	88,870
	TOTAL					$511,260

* Code 800 Miscellaneous represents O/A for AEIDC's position

Position breakdown by agency as projected by AEIDC to be revised by DNR/DOT if necessary

POSITIONS

	FISCAL YEAR 1984			FISCAL YEAR 1985			FISCAL YEAR 1986		
	AEIDC	DNR	DOTPF	AEIDC	DNR	DOTPF	AEIDC	DNR	DOTPF
Full-time	5	1	-	6	1	-	6	1	-
Part-time	-	-	1	-	-	1	-	-	1
Temporary	6	-	-	5			5	-	-

Alaska State Legislature

Senate Committee on State Affairs

Vic Fischer, Chair • Pouch V
Juneau, Alaska 99811
(907) 465-4954

Official Business

COMMITTEE REPORT

February 9, 1984
3:00 pm

Butrovich room
Capitol building

Members Present:

Senator Vic Fischer, Chair
Senator Bill Ray
Senator Tim Kelly
Senator Pat Rodey
Senator Arliss Sturgulewski

EO 56 Transferring the distribution of session laws from the Department of Administration to the Department of Education.

The meeting was brought to order at 3:00 by Senator Vic Fischer. Senator Vic Fischer introduced Dick Engen from the Department of Education.

Dick Engen testified in favor of EO 56.

Senator Arliss Sturgulewski moved that EO 56 be approved.

EO 56 was moved from committee with no objections.

HB 110 Relating to fire weather and avalanche forecasting.

Ned Fahrquhar testified in favor of HB 110. He said the Department of Natural resources was a good department to handle the forecasting because they also do avalanche training. Ned Fahrquhar made a few points about the avalanche forecasting.

Senator Bill Ray said that the Alpine Ski Club was opposed to the way the Division of Parks was using their avalanche training money.

The committee decided to hold the bill over.

SB 386 Displaced homemakers

Karen Perdue from the Department of Community and Regional Affairs explained the displaced homemaker program. She said that 36% of those who seek assistance from the displaced homemaker's programs are ineligible under the state statutes. She also added that the bill had no fiscal note.

The committee members discussed the fiscal note.

SB 386 was moved out of committee with individual recommendations.

SB 323 relating to the Pioneers' homes

Lou Keller, Director of the Division of Pioneer home benefits, testified in favor of the proposed committee substitute.

Senator Vic Fischer suggested an additional change on page 2 of the proposed committee substitute allowing persons designated by the resident an extended amount of time to retrieve the belongings of a deceased resident.

Senator Rodey suggested they re-word the title on the proposed committee substitute.

The was discussion on possible options for a new title. The title on the proposed committee substitute was not changed.

Senator Rodey made a motion to adopt the CS and move it out of committee.

CSSB 323 was moved out of committee with individual recommendations.

SB 387 Relating to working hours of state employees

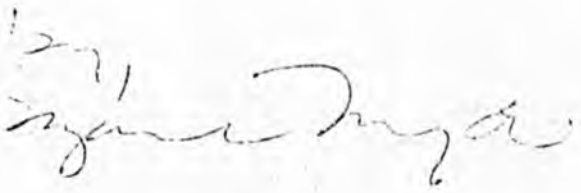
Mike McMullen from the Division of Personnel testified in favor of the bill. He said that the employees covered under section 1 should be able to take 5 days of personal leave a year as an option. He said the provision should not be mandatory. He explained and also spoke in favor of the dispersement of the banked medical leave to the beneficiaries of a state employee who has died.

Discussion occurred on the number of people the above provision would affect.

The committee decided to request a new fiscal note from the Department of Administration.

The bill was moved out of committee with a new fiscal note.

The committee meeting was adjourned at 3:50 pm.



Alaska State Legislature

Senate Committee on State Affairs

Vic Fischer, Chair • Pouch V
Juneau, Alaska 99811
(907) 465-4954

Official Business

MEMORANDUM

TO: Senate State Affairs Committee

FROM: Senate State Affairs Committee Staff

RE: HB 110 Avalancne and Fire Weather Forecasting System

DATE: February 9, 1984

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Fiscal Information

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Enclosed as back-up is:

A fiscal note from DPS.
A fiscal note from DNR.
A packet of back-up information provided by
Representative M.M. Miller's office.

ALASKAN
ALPINE
CLUB
3641 SANDVIK
FAIRBANKS
ALASKA
99701

A RESOLUTION OPPOSING HB 110 AND REQUESTING THE LEGISLATURE TO CEASE FUNDING THE ALASKA AVALANCHE SCHOOL WITHIN THE ALASKA DIVISION OF PARKS

NL; ST

Whereas: State Statute (18.76.010) provides for an avalanche forecasting and warning system within the Alaska State Department of Public Safety; and,

Whereas: The State Administration has acted contrary to the mandate of this statute, and,

Whereas: Without statutory authority the Alaska Division of Parks has developed an extensive avalanche program; and,

Whereas: Avalanches occur beyond the boundaries of State Parks; and,

Whereas: Several improprieties have developed in the growth of the Alaska State Parks Avalanche program (see appendix); and,

Whereas: The Division of Parks has refused to answer questions relating to accountability of its Avalanche program (see appendix); and,

Whereas: The State Parks avalanche program is now expanding into additional mountain rescue activities beyond statutory authority; and,

Whereas: The Alaska Division of Parks is a land managing agency whose jurisdiction was never intended to extend beyond the State Parks system; and,

Whereas: The Alaska Division of Parks does not have and should not have an emergency services mandate; and,

Whereas: The Alaska Department of Public Safety has a statewide emergency services mandate; now:

Therefore be it resolved that the Legislature is urged to direct the Alaska Department of Public Safety to assume positive control of statewide avalanche related services and all other emergency services under its statutory jurisdiction; and,

Be it further resolved that the Alaskan Alpine Club is opposed to HB 110; and,

Be it further resolved that the Legislature is urged to cease funding the Alaska State Parks Avalanche School.

ADOPTED BY THE ALASKAN ALPINE CLUB
BOARD OF DIRECTORS, 2 FEBRUARY 1984

LEADERS IN PROTECTING THE HERITAGE OF AMERICAN MOUNTAINEERING FREEDOM

ALASKAN ALPINE CLUB
3641 SANDVIK
FAIRBANKS
ALASKA
99701

2 February 1984

Alaska State Legislators
Pouch V
Juneau, Alaska 99811

SUBJECT: ALASKA DIVISION OF PARKS AVALANCHE SCHOOL
HB 110 AND CS FOR HB 110

Dear Legislator,

We are very concerned with the direction taken by the Alaska State Parks Avalanche School. We believe that the Division of Parks is embarking on a course of empire building outside its intended mandate. Not only must avalanches be considered statewide, mostly outside State Parks boundaries, but the Division of Parks has now added mountain rescue training to its avalanche program.

The apparent lack of defined policies for the Division of Parks Avalanche School seems to preclude a responsible or accountable development of this program.

As an example; the Division of Parks presented an avalanche workshop in Fairbanks (Nov 18-19), specifically advertised for mountaineers. The two most active mountaineering organizations in Fairbanks, including interior Alaska's only civilian mountain rescue group, were excluded from all planning and presentation activities. They were not even contacted. The Parks workshop conflicted with a pre-scheduled mountain rescue class jointly conducted by the two Fairbanks mountaineering organizations. As a result the effectiveness of both the State and private programs suffered.

The Division of Parks chose to work only with a politically pro-Park environmentalist group. The excluded mountaineering organizations are well known for requesting accountability in government mountaineering programs.

For government to ignore and even subvert the private sector's programs that meet public responsibilities is highly counter productive.

Such an open transgression of responsibility for what should be politically impartial programs seems to demonstrate that the Division of Parks cannot responsibly conduct such an important program.

cont.

As a general policy we see a real danger in allowing land managing agencies to become responsible for emergency services. An inherent conflict of interest allows the possibility of mismanagement. Visitor regulations and policies that breed a false sense of security and dependence on government rescue services tend to reduce individual preparedness. This in turn tends to increase the percentage of accidents in back-country environments. As a result funding for the agency's emergency services program becomes more easily attainable. The fact that emergency services are then provided by the agency, in turn produces excuses for more rangers and control that reinforce the original problem.

The Denali National Park mountaineering mess is a classic example of this phenomenon. The Park Service has developed an expensive mountaineering/mountain rescue empire that has become counter productive. The availability of mountaineering and mountain rescue rangers, and paperwork seemingly oriented toward government rescues breed a false sense of security. Contrasting with its actual impact, the program looks good on paper when annual budget requests are made. Non-Park mountains demonstrate its needness nature.

It is important for the State of Alaska to avoid duplicating this federal tactic.

The underlying lesson is one of checks and balances. Without well defined systems for strict and effective accountability, a land managing agency should not be allowed an emergency services mandate.

The most logical and inexpensive solution is to maintain these two completely different mandates under separate Departments.

The administrative track record of the Division of Parks avalanche program is very disappointing, if not dismal (note appendix). HB 110 should not be passed. There are serious problems with the CS for 110 which we will relate upon request.

The Department of Public Safety is the appropriate agency to conduct any avalanche program.

It is very important that the Department of Public Safety's responsibility for emergency services not be fragmented among various state agencies. It is necessary that the Department retain its full emergency services capabilities. The Department has demonstrated an impartial cooperation with the public to efficiently accomplish its missions and hold public costs to a minimum.

The Department of Public Safety's high standards of professionalism assure the best possible administration of an avalanche program.

cont,

We feel that the Legislature should now actively call for the placement and funding of any State avalanche program to be under the direct jurisdiction of the Department of Public Safety.

Thank you for your consideration of these views.

For the Board of Directors,

Respectfully,

Doug Buchanan

Doug Buchanan
Executive Director

encl. resolution
appendix

cc: Alaska newspapers

APPENDIX

TRACK RECORD OF THE ALASKA STATE PARKS AVALANCHE SCHOOL

The afforementioned example of the Fairbanks avalanche workshop included additional inconsistencies.

The environmentalist group "hosting" the avalanche workshop provided only University of Alaska facilities, yet was beneficially credited by the Division of Parks on State publications.

At the outset of each day's workshop, the president of that environmentalist group began the proceedings by making several announcements which would lead one to believe that the program was a part of that organization's programming. The Division of Parks did not correct that impression.

Subsequent to that workshop the Division of Parks sold avalanche books through that organization, and none other.

At some of the avalanche workshops the Division of Parks undercut local private enterprise by selling commercially available avalanche beacons, wholesale. Private enterprise cannot compete with State funded handling and overhead costs. Of the three comparable brands of avalanche beacons the Division of Parks has implied State endorsement of the brand it sells at its workshops.

On at lease one occassion the Division of Parks encouraged (beyond just notice of availability) subscriptions to a particular avalanche oriented magazine.

To attend a State sponsored and advertised mountain rescue workshop payment had to be made through the State to a private Fund, about which the State could not relate accountable information.

State Parks stationary (publicly funded) contains a by-line advocating State Parks, not an impartial conservation goal. This is perhaps minor but carries great symbolic importance and clearly indicates the Park administration's self-serving philosophy.

Questions the Division of Parks would not answer:

Who, by name, "determined" that there was a need for a State sponsored mountain rescue technology workshop in southcentral Alaska?

What are the workshop expenses? To whom are they paid?

How many people involved in this mountain rescue workshop, and whom, are both Division of Parks employees and Alaska Mountain Rescue Group (Anch.) members?

What did the agreement with the so called Alaska Mountain Rescue Fund entail?

How was it determined that a mountain rescue technology workshop was needed in southcentral Alaska?

How was it determined that such a workshop was not needed in northcentral or southeast Alaska?

Of the three civilian mountain rescue groups in Alaska, why was no contact or agreement offered the non-Anchorage rescue groups for this public service (workshop)?

Why were they not even contacted?

A partially answered question indicates that the Division of Parks entered the State into a nebulous financial agreement with a "Fund" that has no charter or publicly accountable administration.

* * *

~~Initiatives~~:

1) under budgeted.
   A) Federal funds are decreasing
   B) fire protection 10 million acres to go up to 137 mill. acres (this summer)

2) always performed fire weather forecasting but wasn't in ~~EZ~~ statute

3) They started earlier.

4) contact to AETDC (Arctic Environmental info. and Data center.)

FUNDING
- problems w/ state affairs asking for a new fiscal note.

- Started in October.
- Federal funds cut back
- geographic coverage for fire-weather increasing.
- No increase for a number of years.

AEIDC (in future)
- under University
- Do technical forecasting for state.
  - avalanche (southeast / south central)
  - fireweather (summer) statewide.

Avalanche:
- education
- future planning to take avalanche probability into consideration

Move

House cleaning

DPS DOT involved

~~DNR administers~~

278,000 in DPS.
went to DNR, ~~AEIDC~~ AEIDC, DOT
$98.6 $141.1 $32.3
got it because recreation manager.

(Avalanche tech. Avalanche control.)

Currently

DNR
- Avalanche school
- ~~Back~~ Back country workshops
- In state, park division
  - 1 person full-time teacher

DOT
- avalanche control (Southeast / Southern Central
-
- actual shooting.

DPS
- ~~AER~~.
- NO ADMINISTRATIVE COSTS
- BASICALLY JUST PUT MONEY out in GRANT.

B SUBSTANCE OF BILL

← The change would increase the parameters of the bill.

AETDC

- AVALANCHE
  - MTN. weather for agencies
- AVA.
  - Mountain weather
  - PUBLIC FORECASTS (High use Back country areas.)
    - some money from forest (service)
- fire weather
  - weather forecasts (agencies)
    - 1) winds etc.
    - 2) DNR may issue public warnings

House CS

- Thought they might get program w/out money. They suggested get money straight.
- get original bill more efficient.

.....

EARLY MORNING 12 HR OUTLOOK FOR SOUTH CENTRAL MOUNTAINS
ALASKA AVALANCHE FORECAST CENTER
6.30 AM YST THU JAN 12 1984

SYNOPSIS...STRONG MOIST SOUTHERLY FLOW CONTINUES TO BRING WARM TEMPS... PRECIP...AND STRONG WINDS TO SOUTHCENTRAL MTNS. STORM SYSTEM 200 MI SOUTH KODIAK IS RAPIDLY MOVING NORTH TOWARDS AK PENINSULA...ASSOCIATED FRONT MOVING THRU AREA EARLY AFTN. NEXT SYSTEM SHOULD BE IN SAME LOCATION AS PRESENT STORM TOMORROW.

FOR THE NEXT 12 HOURS...

HATCHER PASS...
MOSTLY CLOUDY WITH CHANCE RAIN/SNOW. HIGHS 30S. MAINLY NORTH TO EAST WINDS 15 KTS AND GUSTY...HIGHER AT RIDGETOPS.

CHUGACH STATE PARK
NORTH SIDE OF TURNAGAIN ARM
CHUGACH NATIONAL FOREST LANDS INCLUDING TURNAGAIN PASS...SUMMIT LAKE AND MOOSE PASS AREAS...
RAIN..SNOW AT HIGHER ELEVATIONS..HEAVY AT TIMES. HIGHS NEAR 40. WINDS ESE 10-25 KTS AND VERY GUSTY...HIGHER AT RIDGETOPS.

FRZG LVL...2-3000 FT SOUTH...2000 FT NORTH.

PRELIM QPF FOR NXT 12 HRS...T-.25 IN NORTHERN AREAS.. .50-1.00 SOUTHERN AREAS.

MRL JAN 84

/C FVAK20 PANC @@@@@@
APAP
BACKCOUNTRY AVALANCHE WARNING FOR SOUTHCENTRAL ALASKA
ALASKA AVALANCHE FORECAST CENTER--UNIV OF ALASKA--AEIDC
ISSUED THRU THE NATIONAL WEATHER SERVICE OFFICE ANCHORAGE AK
1130 AM AST THU JAN 12 1984

THE ALASKA AVALANCHE FORECAST CENTER HAS ISSUED A BACKCOUNTRY AVALANCHE WARNING FOR...

THE NORTH SIDE OF TURNAGAIN ARM AND CHUGACH NATIONAL FOREST LANDS INCLUDING TURNAGAIN PASS...SUMMIT LAKE AND MOOSE PASS AREAS.

THE BACKCOUNTRY AVALANCHE HAZARD IS HIGH. HEAVY AMOUNTS OF WET NEW SNOW AT HIGHER ELEVATIONS AND RAIN AT LOWER ELEVATIONS... STRONG WINDS...AND WARM TEMPERATURES HAVE MADE BOTH NATURAL AND HUMAN-TRIGGERED AVALANCHES LIKELY IN THESE AREAS. EXTENSIVE NATURAL AVALANCHE ACTIVITY HAS BEEN OBSERVED IN THE LAST 24 HRS.

THIS STATEMENT APPLIES TO BACKCOUNTRY AREAS ONLY AND NOT TO CONTROLLED HIGHWAYS OR SKI AREAS.

THIS WARNING WILL BE UPDATED OR TERMINATED BY 9.00 AM AST THIS FRIDAY MORNING.

FOR DETAILS EASE CALL THE AVALANCHE FORECAST CENTERS 24 HOUR RECORDING AT 271-4500.

JAF JAN 84

TV
Radio
Newspapers
Tel recording
NWR (by radio)
National Weather service radio

/C FVAK21 PANC @@@@@@
APAP
BACKCOUNTRY AVALANCHE AND MOUNTAIN WEATHER ADVISORY
ALASKA AVALANCHE FORECAST CENTER--UNIV OF ALASKA--AEIDC
ISSUED THRU THE NATIONAL WEATHER SERVICE OFFICE ANCHORAGE AK
1130 AM YST THU JAN 12 1984

AVALANCHE ADVISORY...AN AVALANCHE WARNING IS IN EFFECT FOR THE NORTH SIDE OF TURNAGAIN ARM AND FOR CHUGACH NATIONAL FOREST LANDS INCLUDING TURNAGAIN PASS...SUMMIT LAKE...AND MOOSE PASS AREAS. AVALANCHES ARE LIKELY DUE TO HEAVY AMOUNTS OF WATER AND NEW SNOW... STRONG WINDS...AND WARM TEMPERATURES. THE INSTABILITY IS EXPECTED TO PERSIST THRU FRIDAY MORNING AS MORE PRECIP AND WINDS ARE EXPECTED.

HATCHER PASS
THE BACKCOUNTRY AVALANCHE HAZARD IS MODERATE ON HIGHER ELEVATION LEE TERRAIN. SLAB AVALANCHES AND SLUFFS ARE POSSIBLE...ESPECIALLY HUMAN-TRIGGERED RELEASES ON STEEP WIND-LOADED TERRAIN. WIND LOADING HAS OCCURRED ON VARIABLE ASPECTS DUE TO SHIFTING RIDGETOP WINDS.

CHUGACH STATE PARK
THE BACKCOUNTRY AVALANCHE HAZARD IS MODERATE. AVALANCHES AND SLUFFS ARE POSSIBLE...ESPECIALLY HUMAN-TRIGGERED RELEASES IN STEEP GULLIES. THE INSTABILITY IS DUE TO WIND-LOADING ON TOP OF A WIND-HARDENED SURFACE.

..
NORTH SIDE OF TURNAGAIN ARM
CHUGACH NATIONAL FOREST LANDS INCLUDING TURNAGAIN PASS...SUMMIT LAKE AND MOOSE PASS AREAS...
THE BACKCOUNTRY AVALANCHE HAZARD IS HIGH AND A WARNING IS IN EFFECT. SIGNIFICANT NEW SNOW AND WIND LOADING HAS MADE WET SLAB AVALANCHES AND WET LOOSE SNOW SLIDES LIKELY ESPECIALLY WHERE LOADING HAS OCCURRED ON TOP OF ICY CRUSTS. WIND-LOADING HAS OCCURRED PRIMARILY ON NORTH TO WEST ASPECTS. THE SNOW LINE ALONG THE NORTH SIDE OF TURNAGAIN ARM IS ROUGHLY 1500 FT WITH WET SNOW AT HIGHER ELEVATIONS AND HEAVY AMOUNTS OF RAIN BELOW. EXTENSIVE NATURAL AVALANCHE ACTIVITY HAS BEEN REPORTED IN THE LAST 24 HOURS.

MOUNTAIN WEATHER FORECAST...RAIN AND SNOW WILL CONTINUE TODAY WITH MILD TEMPERATURES AND STRONG WINDS AS ANOTHER STORM SYSTEM ENTERS THE REGION.

HATCHER PASS...
MOSTLY CLOUDY WITH CHANCE RAIN AND SNOW. HIGHS IN THE 30S. MAINLY NORTH TO EAST WINDS 15 MPH AND GUSTY BECOMING MORE SOUTHEASTERLY THIS AFTERNOON...HIGHER WINDS AT RIDGETOP LEVELS.

CHUGACH STATE PARK
NORTH SIDE OF TURNAGAIN ARM
CHUGACH NATIONAL FOREST LANDS INCLUDING TURNAGAIN PASS...SUMMIT LAKE AND MOOSE PASS AREAS...
RAIN..SNOW AT HIGHER ELEVATIONS..HEAVY AT TIMES THRU THIS AFTERNOON. HIGHS NEAR 40. WINDS EAST SOUTHEAST 10-25 MPH AND GUSTY AT TIMES... HIGHER WINDS AT RIDGETOP LEVELS.

SNOW REPORT AS OF 7.00 AM THIS MORNING...

STATION	SNOWFALL	PRECIP TYPE	TOTAL DEPTH	WEATHER..TEMPERATURES	
HATCHER PASS	T	SNOW	42	CLOUDY..WINDY	30
SOUTH FORK-- EAGLE RIVER	0	NONE	14	CLOUDY..WINDY	38
GLEN ALPS	0	NONE	N/A	CLOUDY..WINDY	30
GIRDWOOD	0	RAIN	3	RAINY..WINDY	38
ALYESKA BASE	0	RAIN	4	RAINY..WINDY	38
ALYESKA MIDWAY	18	RAIN/SNOW	93	RAIN/SNOW/WINDY	31
HOPE	0	RAIN	4	RAINY..WINDY	37
MOOSE PASS	0	RAIN	4.5	RAINY..WINDY	37
THOMPSON PASS	10	SNOW	30	SNOW..WINDY	32

THIS ADVISORY WILL BE UPDATED AT 2.00 PM THIS AFTERNOON OR SOONER IF CONDITIONS WARRANT. PLEASE CALL 271-5099 FOR ADDITIONAL DETAILS.

MBE/JAF JAN 84

ALASKA AVALANCHE FORECAST CENTER--UNIV OF ALASKA--AEIDC
ISSUED THRU THE NATIONAL WEATHER SERVICE ANCHORAGE AK
0830 YST THU JAN 12 1984

SYNOPSIS...STRONG MOIST SOUTHERLY FLOW CONTINUES TO BRING WARM TEMPS.. PRECIP..AND STRONG WINDS TO SOUTHCENTRAL MTNS. STORM SYSTEM 200 MI SOUTH KODIAK IS RAPIDLY MOVING NORTH TOWARDS AK PENINSULA..ASSOCIATED FRONT MOVING THRU AREA THU AFTRN. TOMORROW TRAILING SYSTEM SHOULD REACH SAME LOCATION AS PRESENT STORM.

WX FCSTS...
1...SOUTHERN TALKEETNA MTNS-HATCHER PASS
MOSTLY CLOUDY WITH CHANCE RAIN/SNOW. HIGHS 30S. MAINLY NORTH TO EAST WINDS 15 KTS AND GUSTY BECOMING MORE SOUTHEASTERLY THU AFTN..HIGHER WINDS AT RIDGETOP LEVELS.

2A..WESTERN CHUGACH MTNS-KNIK ARM DRAINAGES
2B..WESTERN CHUGACH MTNS-TURNAGAIN ARM DRAINAGES
3...NORTHERN KENAI MTNS
RAIN..SNOW AT HIGHER ELEVATIONS..HEAVY AT TIMES HRU THU AFTN. HIGHS NEAR 40. WINDS ESE 10-25 KTS AND GUSTY AT TIMES..HIGHER AT RIDGETOP LEVELS.

4...EASTERN CHUGACH MTNS-THOMPSON PASS
SNOW..HEAVY AT TIMES. TEMPS 30S. WINDS SE 20 KTS AND GUSTY.

5...ALASKA RANGE-ARR CORRIDOR
MOSTLY CLOUDY WITH CHANCE RAIN/SNOW. HIGHS UPPER 30S. NORTHEAST WINDS TO 10 KTS.

FREEZING LEVELS...2500 FT SOUTH..2000 FT NORTH.

FREE WINDS...
3000 FT....SE 30 KTS.
6000 FT....SSE 40 KTS.
10000 FT...S 60-65 KTS.

QPF FOR 24 HRS ENDING 0900 FRI JAN 13 1984

SITE	W.E.	SNOW
HATCHER PASS	T-.25	T-4
GLEN ALPS/HILLSIDE	T-.25	T-2
ANCHORAGE BOWL	T-.25	0
ALYESKA BASE	1.00-2.00	0
MOOSE PASS	1.00-2.00	0
THOMPSON PASS	1.00-2.00	10-20

SNOW STABILITY INFORMATION
SALE ON SWAMP BOOTS...IN ALL AREAS WIDESPREAD ACTIVITY REPORTED AND EXPECTED TO CONTINUE DUE TO STRONG RIDGETOP WINDS AND HEAVY AMOUNTS OF WATER. SOUTHERN AREAS VERY WET SLABS. LISTING BACKCOUNTRY AVALANCHE HAZARD ALL AREAS MODERATE TO HIGH.
HATCHER PASS...NO NEW DATA YET TODAY. SUSPECT CONTINUED SLUFFING TODAY AND SLAB ACTIVITY ON SOUTHERLY TERRAIN. DENSITY NEW SNOW YESTERDAY 6-7%
SEWARD HIGHWAY...ALMOST EVERYTHING BETWEEN MILE 99 AND 91 RAN LAST 24 HRS. SOME PATHS THAT RAN YESTERDAY RUNNING AGAIN TODAY. VERY WET. PATHS LUBRICATED. REACHING BUT NOT CROSSING ROAD. COTTONWOOD RAN NATURALLY LAST NIGHT.
NORTH SIDE TURNAGAIN ARM...SNOW LINE ROUGHLY 1200-1400 FT. SIGNIFICANT LOADING AND WINDS UP HIGH SO EXPECT ACTIVITY. PREDOMINANTLY ON NORTH TO WEST TERRAIN.
MOOSE PASS-KENAI LAKE AREAS...WET SLAB AND WET LOOSE SNOW ACTIVITY REPORTED. MOST SEEM TO BE RUNNING ON THICK MELT FREEZE CRUST.

24 HR PRECIP AND WEATHER REPORTS SO FAR THIS MORNING...

STATION	NEW SNOW	W.E.	DEPTH	SKY/WX	TEMP	WIND	COMMENT
HATCHER PASS							
EAGLE RIVER-S. FORK	0	0	14	OVC	38	ESE 22-27	
BIRD CREEK	0	1.22	3	RAIN	37	NE 5-10 HIGHER UP HIGH	
DEVILS CLUB							
GIRDWOOD	0	.77	3	RAIN	38		
ALYESKA BASE	0	1.72	4	RAIN	38	SE 10-20 HIGHER GUSTS	
ALYESKA MIDWAY	18	2.13	93	RAIN/SNOW	31	SE 20-30 GUSTY. SNOW LINE 1200-1400 FT	
SILVERTIP	0	.68		RAIN/SNOW	35		
HOPE	0	.16	4	RAIN	37	ESE 5G30	
TERN	.5	.82	5	RAIN	34	SE 15-40	
MOOSE PASS	0	1.19	4.5	RAIN	37	S 10-45	
TURNAGAIN PASS	14	N/A	N/A	N/A	N/A	N/A	
THOMPSON PASS	9.5	1.40	30	SNOW	32	ESE 22	

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: 2/7/84

REQUEST
Bill/Resolution No.: HB 110
Title: Avalanche & fire weather forecasting system
Sponsor: M. M. Miller
Requestor: Senate State Affairs
Date of Request: 1/20/84

FISCAL DETAIL
Agency Affected: Natural Resources
Program Category Affected: NRMEC
BRU, Program or Subprogram(s) Affected: Park Management

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

These funds are currently included in the FY 84 budget and FY 85 budget proposal for the Department of Public Safety. This is a transfer of funds ($98.6) to Park Visitor Services project, Park Management BRU. Amount of transfer is $275.0. The intended distribution would include $32.3 for DOT/PF (avalanche) and $144.1 for AEIDC (avalanche and fire).

ANALYSIS: Attach a separate page for analysis

Prepared By: Ned Farquhar
Phone: 465-2400
Division: Commissioner's Office
Date: 2/7/84

Approved by Commissioner: Norm D Arnold, Deputy
Date: 2/7/84
Agency: Department of Natural Resources

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

P.O. Box 432
Douglas, Alaska 998

May 6, 1983

Representative Mitch Abood, Chairman
House State Affairs Committee
Alaska State Legislature
Pouch V (MS 3100)
Juneau, Alaska 99811

COPY

Representative [illegible]bert P. Adams, Chairman
House Financ[illegible]mittee
Alaska State [illegible]slature

Dear Representative _____

This letter is in support of the enclosed House Bill No. 110, sponsored and introduced in the present session on 1/24/83 by Representative Mike Miller. It has been referred to State Affairs and Finance, where it now sits.

This bill is an amendment to legislation passed in 1979 pertaining to an avalanche warning system for Alaska. It is primarily a housekeeping measure, with word changes that recognize the scientific forecasting value of the system rather than implying scare tactics through emphasizing warnings. However, should extreme avalanche danger develop, then of course appropriate warnings would be disseminated to the public. It also recognizes the associated value of the fire weather forecasting part of the overall system, and the nomenclature of the project therefore becomes the Alaska Avalanche and Fire Weather Forecasting System (AA/FWFS).

Probably the most significant change in the statute is a proposed shifting of responsibility from the Department of Public Safety to the Department of Natural Resources, in representing the state for operation of the system. Experience to date has shown this to be a more practical approach, since DNR now plays the major role in conducting the public education and prevention aspects of the program. Technical avalanche awareness workshops are offered throughout the state by DNR. In other words, DNR is closer to an on-the-ground application in a working mode than is DPS. By prior agreement between the two Departments, this change appeared to be needed. The change should therefore not meet with any opposition, from the standpoint of the Departments involved.

While employed by the U.S. Forest Service, I was personally helping to formulate the original legislation which was sponsored by Representative Mike Miller to get the system going on a statewide basis. Although I have recently retired from that agency, I still maintain a personal interest in the AA/FWFS for its most effective operation.

I urge you to schedule this bill on the calendar at the earliest possible time, to enable possible passage during the current session. In this way, DNR would be in a position to followup with regular program planning and a budgetary request for Fiscal Year 1985. DPS has already submitted a budget request for Fiscal Year 1984 which is presently under routine review. This bill therefore does not

involve any new fiscal impacts from the standpoint of any needed special supplemental appropriations.

Sincerely,

Robert C. Janes

Enclosure

cc: Reprentative Mike Miller
House State Affairs Committee

Representative Jim Duncan
House Finance Committee

Wallace Watts, USFS Anchorage
Program Director AA/FWFS

Gary Morrison, USFS Juneau
Division of Recreation

MEMORANDUM

State of Alaska
Department of Transportation & Public Facilities

TO: Richard A. Hamilton, P.E.
Acting Director
Maintenance and Operations
Southeastern Region

DATE: March 14, 1983

FILE NO:

TELEPHONE NO:

SUBJECT: Work Summary

FROM: Gunnar Noreen
Avalanche Technician
Maintenance and Operations
Southeastern Region

586-7375
Weather Svc

789-0841
DOT

Projects Completed:

Daily briefings with the National Weather Service weather data
Eaglecrest sends in weather data, Avalanche activities, and Avalanche Control Results
Issue daily avalanche advisories based on mutual consent with Lief Lie
Record daily avalanche advisory on the code-a-phone, 586-7669
Transfer of all equipment pertaining to snow studies from the Forest Service
Transfer all past records, studies and operational guidelines from Forest Service
Inventory of all tranferred Forest Service materials including desk, chairs, cabinets, etc.
Familiarization of procedures and daily operation functions of National Weather Service and DOTPF
Learn procurement procedures regarding avalanche supplies
Compile slide library of avalanches, i.e. back country travel, distructive forces, indicators, rescue, safety precautions
Reorganized DOTPF Avalanche Cache (yellow box)
Conducted simulated avalanche rescue with peips, probes on Thane Road, Snow Slide Creek
Formulated DOTPF Rescue plan and procedure guidelines, with help of Juneau Maintenance Crew
Contacted Ron Dippold, National Ski Patrol Leader for possible mutual aide agreement re: avalanche rescue.
Orientation and training in Anchorage
Organize field observer stations for Thane Road, Behrends Avenue, White Subdivision, and Norway Point
Installation of Snow Stake on Mt. Juneau
Daily weather recording and weekly update on avalanche occurrances and corresponding weather patterns
Meeting with State Troopers regarding availability of existing avalanche rescue cache
DOTPF representation on the Juneau Interagency Disaster Planning Committee (Monthly Meeting)
Weekly conferences with National Weather Service Meteorologist Lief Lie, DOTPF, Acting Director Dick Hamilton, and Juneau Maintenance Shop Foreman Bert Goodwin
Daily visual inspection of Behrends Avenue, Thane Road, Eaglecrest, weather permitting
Mt. Juneau snowstake observations for snow depth, weather permitting
Received snow pit profiles from Eaglecrest, Done by Eaglecrest Staff
Snowpits done at remote sites, Mt. Juneau, Mt. Roberts and Eaglecrest, copy attached
Conference with Lief Lie as to when avalanche control work on Thane Road would have optimum results
Conference with Dick Hamilton on availability of gun crew to do control work
Attend Wilderness Emergency Medical Seminar (8 hour class)

Attend Alaska Avalanche School in Juneau at Eaglecrest (42 hours)
Repaired and improved Eaglecrest temperature probe and anemometer (currently in progress)
Conducted two Avalanche Awareness slide presentations at Mendenhall Glacier Visitors Center
Interview with Juneau Empire regarding avalanche situation in Juneau
Advertised Alaska Avalanche Warning System telephone number and explanation of rating the avalanche hazards
Familiarization of past papers written and studies done on avalanches in the Juneau area
Assist local government and State agencies in identifing hazardous avalanche zones and critical condition
During high or extreme avalanche conditions answer phones or refer calls to Lief Lie

PHASE II - OPERATION PLAN FROM 3/15/83 to 5/1/83

Installation of weather station at Salmon Creek (1 day)
Continuation of snow pit analysis (5 days)
Location of meteor burst site while there is still snow on the ground, to see where deposit zones are (1 day)
Acquire necessary permits once site has been selected (1 to 3 days)
Build shipping box for instruments to be sent to and from Juneau and Anchorage
Procurement of meteor burst system and installation (1 to two weeks)
Construct fiberglass box to house instruments on mountain ridge. (1 week)
Get tower lattice ready for instruments.(1 week)
Build permanent platform that is base for the fiberglass box (1 week)
Scout for locations of weather substations on road system accessible by skis (1 to 5 days)
Construct two more snow stakes for Mt. Juneau and Mt. Roberts (1 week)
Proposed two full blown avalanche rescue exercises at Eaglecrest, with State Troopers, SEADOGS, DOTPF personnel and National Ski Patrol and Temsco (2 days)
Behrends Avenue computerized analysis report, investigate possible use and implementation of program (1 week)
End of season, wind up projects and work on next year's schedule.

GN/bp

c: Wally Watts, Director
Alaska Avalanche Warning System

Gary Morrison
U.S. Forest Service
Recreation Dept.

NATIONAL SKI PATROL SYSTEM, INC.
Alaska Division

P.O. Box 432
Douglas, Alaska 99824

May 17, 1983

Mr. Chairman and Members of the
House State Affairs Committee:

My name is Bob Janes and I am testifying for the National Ski Patrol System in Alaska, in support of HB 110 which would amend certain portions of the Alaska Avalanche Warning System.

NSPS in Alaska is comprised of more than 350 registered patrollers who provide voluntary highly skilled services for the general safety and well being of the skiing public. This organization gave strong support toward establishing the existing system, which from the state participation standpoint, became a state law effective July 1, 1980.

We believe the proposed operational change for transferring responsibility for representing the state from the Department of Public Safety to another state agency with closer on-the-ground applications of the system would result in a more efficient operation.

We have just learned today that the Arctic Environmental Information and Data Center (AEIDC), University of Alaska, is interested in and willing to take on the lead responsibility role for the state. We also understand this is agreeable with the Department of Natural Resources.

The National Ski Patrol System in Alaska therefore urges passage of HB 110 as written, except for Sec 18.76.010 substitute the Arctic Environmental Information and Data Center, University of Alaska, for the Department of Natural Resources. This direction would be logical, since AEIDC currently supervises and directs the work of professional meteorologists operating from the Avalanche Forecast Center in Anchorage.

Thank you for your time. I would be pleased to answer any questions.

Bob Janes
Legislative Advisor, NSPS Alaska Division

City of Delta Junction

Box 229

Delta Junction, Alaska 99737

907 - 895 - 4656

The North End of the Alaska Highway

March 3, 1983

Representative Mike Miller (D)
Pouch V
Juneau, Alaska 99811

Dear Representative Miller:

The City Council of Delta Junction reviewed pending legislation at their March 1, 1983 meeting. They voted unanimously to endorse and provide their support on the following bills:

HB42	An Act relating to the determination of population for purposes of calculating amounts of state aid; and providing for an effective date.
HB[illegible]0	An Act relating to an avalanche and fire weather forecasting system; and providing for an effective date.
HB119	An Act making a special appropriation for payment as a grant to the community of TOK for a rescue ambulance apparatus; and providing for an effective date.
HB136	An Act making an appropriation to the Department of Revenue for financial assistance to municipalities; and providing for an effective date.
HB153	An Act making a supplemental appropriation to the Department of Revenue for financial assistance to municipalities; and providing for an effective date.
HB162	An Act authorizing general law municipalities to limit the number of consecutive full terms certain municipal officials may serve.
HB172	An Act relating to municipal government; and providing for an effective date. (Title 29 rewrite).

House Bill 164 was also reviewed by the Council and they voted four to two against endorsing and supporting this legislation.

Sincerely,

Lou Heinbockel

Louis E. Heinbockel, Mayor
City of Delta Junction

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

MAINTENANCE AND OPERATIONS

Box 3-1000 Juneau, Alaska 99802
PHONE: 907 789-0841

April 6, 1983

Honorable Mike Miller
Alaska House of Representatives
Alaska State Capitol
Pouch V
Juneau, Alaska 99811

Dear Sir:

Basic organizational and operational concerns need to be dealt with to insure public and employee safety.

The current avalanche forecast and control organization is undefined and has no written procedures and is very fragmented. Communication and line of command is cumbersome and confusing. No one is responsible or in charge of the whole safety program.

Snow avalanche problems are just attached to regular ongoing DOT/PF superintendents, maintenance and operational duties. Consequently, concern is only expressed and addressed when a serious snow related problem exists. After snow is removed from the highways, avalanche safety becomes a forgotten and minor issue.

Snow mountain weather in Alaska is a very dynamic system. The monitoring of snow avalanche conditions is a six to nine month, seven days a week, twenty-four hours a day, and under some high hazardous conditions an hourly requirement. Specialists trained and directly involved in forecasting and evaluating snow avalanche hazard must concentrate, collect and assimulate weather and snow information throughout the winter snow season, November thru April.

In Juneau, the immediate concerns are construction and maintenance of climatalogical stations at Eaglecrest and Salmon Creek. These two stations are now constructed but need to be maintained. Also, the positioning of meteor burst data collection station, (wind speed, direction, relative humidity, temperature, water content of snow). When all these stations are operational we can then base our avalanche advisories on hard data. The Alaska Avalanche/Fire Warning System is now in it's toddler stage, there will be some growing pains. Hopefully all instrumentation will be completed before the 1983-84 avalanche season is upon us.

A draft is being compiled on specific recommendations that I feel would help this cooperative system flow smoother, a copy of this will be made available to you.

Sincerely,

Gunnar K. Noreen
Avalanche Technician

25A-T11LH

FOGGY MOUNTAIN SHOP *Scott Fischer • Betsy Flood*

171 SHATTUCK WAY JUNEAU, ALASKA 99801 PHONE (907) 586-6780

March 4, 1983

The Honorable Mike Miller
House of Representatives
Pouch V
Juneau, Alaska 99811

Dear Mike,

I recently completed a four day avalanche workshop in Juneau sponsored by the Alaska Avalanche School, Division of Parks, Dept. of Natural Resources. As a backcountry skier, I was very impressed with many aspects of this citizen education program subsidized in part by our state government.

All the instructors were experienced, knowledgeable and professional in their efforts to educate a varied group of over thirty students in avalanche evaluation, safety and rescue. The workshop schedule was well arranged for maximum classroom instruction and field work and very proficiently run by coordinator Doug Fesler.

I strongly support continued use of state money for programs such as the Alaska Avalanche School. Many Alaskans are involved, or have friends and family involved, in winter backcountry travel. The Alaska Avalanche School is a rare opportunity to educate these citizens in safe winter travel and thus help avoid the comparatively high costs of state funded rescue efforts in the backcountry. Doug Fesler should be commended for his tremendous efforts in this direction.

Thanks for your attention, Mike.

Sincerely,

Betsy Flood

March 21, 1983

Representative Mike Miller
Alaska State Legislature
Pouch V
Juneau, AK 99811

Dear Representative Miller:

We were fortunate enough to be able to attend the Alaska Avalanche School, Juneau Workshop in February 17-20. I don't believe we are alone in stating that the workshop was very well organized, instructed and very, very valuable in terms of public education.

We have both been involved in backcountry recreational guiding for the past two years in Alaska and have seen, even in that short time, a significant increase in wintertime backcountry use. With sophisticated modern equipment and techniques, this trend is sure to continue. With this in mind, public avalanche education is imperative. Also, with the lack of zoning restrictions at either the state or local level, knowledge of potential avalanche hazards to housing developments and individual homesites could avoid major losses of life and property.

We are taking the point of view that prevention is the best cure. Not only are avalanche accidents often tragic, and organized rescue efforts (often merely body recoveries) very expensive, but they are in most cases, avoidable if people possess the proper knowledge for basic evaluation of avalanche hazards.

True, public education in this area is expensive, but the returns are high in terms of public safety and avoidance of expensive rescue efforts. In the past, the State of Alaska has been able to offer avalanche education to the public at a cost affordable to most people. We strongly support the continuance of public avalanche education through the Alaska Avalanche School workshops.

It is encouraging to see more and more people enjoying Alaska's wintertime backcountry, but they should have the opportunity to approach backcountry activities armed with the necessary knowledge to avoid potential hazards or, if they are involved in an avalanche incident, to effect rescue efforts for those caught in a slide (buried victims' best chances for survival are the members of the party who were not caught in the slide).

The Alaska Avalanche School workshops are well managed, instructed, and provide an essential public service. They deserve to be continued. Thank you for your time and attention to this matter.

Sincerely,

William Ross Hardwick

Gloria Griffith Hardwick

William Ross Hardwick
Gloria Griffith Hardwick
Box 534
Douglas, AK 99824

cc: Neil Johannsen

Arctic Environmental Information and Data Center
707 A Street
Anchorage, Alaska 99501

PHONE (907) 279-4523

UNIVERSITY OF ALASKA, FAIRBANKS

November 14, 1983

Representative Mike M. Miller
P.O. Box 1494
Juneau, AK 99802

Dear Representative Miller:

I am writing you in reference to the Alaska Avalanche/Fire Weather Forecast System, AA/FWFS and the proposed changes to the system incorporated in the pending HB110. The avalanche working group of the AA/FWFS met at the Arctic Environmental Information and Data Center, University of Alaska, AEIDC on October 25, 1983. In the course of business, a motion was passed for the working group to support HB110. Also at the same meeting, it was suggested that the state appropriation for the AA/FWFS be re-examined and a new fiscal note attached to HB110 in view of: inflationary factors, current program inadequacies, and program growth needed to meet public needs particularly in avalanche advisory forecasts for new areas and the publication of educational materials. To this end we will bring concerned agencies together and prepare a new fiscal analysis.

I have attached a copy of the minutes of the October 25 meeting and the 1982-83 end of season report with its addendum. On another related point, should HB110 become law and the major role for the AA/FWFS program be statatorily assigned to AEIDC, University of Alaska (rather than by just cooperative agreement), then budgetary care needs to be exercised so that this inter-agency cooperative program is not lost within the total University of Alaska appropriation. If I can be of any assistance in providing more information about the AA/FWFS please feel free to contact me.

Sincerely,

James F. Wise

James F. Wise
Alaska State Climatologist

JFW/sw

Attachments
Agenda & Minutes, October 25 Meeting
Alaska Avalanche Forecast Center End-of-Season Report 1982-83
Addendum to 1982-83 End-of-Season Report
AA/FWFC Overall Objectives for the Avalanche Season

cc: Jay Hogan, Budget Officer, DMB w/attachments

ALASKA AVALANCHE/FIRE WEATHER FORECAST CENTER (AA/FWFC)
OVERALL OBJECTIVES
FOR THE AVALANCHE SEASON

I. OBJECTIVES

A. The Arctic Environmental Information and Data Center (AEIDC) will maintain a service center (the Alaska Avalanche Forecast Center), primary and supplementary field stations, and a data base concerning (a) surface weather condition, (b) snow pack conditions, and (c) avalanche activity.

B. The Alaska Avalanche Forecast Center (AFC) will forecast southcentral mountain weather conditions and issue snow stability assessments for high use backcountry areas.

C. AFC personnel will participate in the public awareness program on avalanche dangers.

II. REQUIRED ACTIONS TO MEET OBJECTIVES

A. Maintain a service center, the Alaska Avalanche Forecast Center, to perform the following:

1. Gather knowledge of surface weather conditions.

a. Use established National Weather Service (NWS) reporting stations and analyses.

b. Set up additional stations in representative areas through (a) other state and federal agencies, (b) paid observers in key locations, and (c) volunteer cooperators.

2. Gather knowledge of snowpack conditions.

a. Work with other AA/FWFS cooperating agencies in sharing snowpack observations.

b. On-site observations by AEIDC field personnel.

c. Paid observers in key locations.

d. Volunteered data from private entities.

3. Gather knowledge of avalanche activity.

a. Cooperate in sharing avalanche occurrence data with other AA/FWFS cooperating agencies.

b. Records of on-site observations by AEIDC personnel.

c. Paid observers in key locations.

d. Volunteered data from private entities such as ski resorts, outdoor recreation groups, local flyers, backcountry skiers.

e. New media reports.

B. The Alaska Avalanche Forecast Center will forecast southwestern snow stability assessments for back country areas.

1. Man the AA/FWFC sufficiently to issue both routine forecasts and nonscheduled advisories on avalanche conditions.

a. Routinely collect and analyze weather and snow data.

b. From November 1 to April 15, issue twice daily bulletins which integrate weather forecasts and snow analyses to assess the avalanche potential in areas of concern. Operations will start earlier if necessary. Similarly, operations will be continued later in spring, if conditions warrant.

c. Issue advisories and warnings, as necessary, to news media.

d. Maintain a telephone recording of mountain weather conditions and avalanche hazard for access by the public.

2. Verify forecasts, develop procedures, and periodically assess the work performed in the AA/FWFC.

3. Maintain a statewide data base of meteorological, snow, and avalanche occurrence data.

C. Participate in the Public Awareness Program on avalanche danger.

1. See that Alaska newspapers, radio stations, and TV stations periodically publish the public telephone number for the AA/FWFC and publicize messages during critical periods.

2. Participate in seminars, workshops, training, etc. on avalanches.

3. Present lectures on avalanches to interested public and private organizations.

D. Supervision and Administration

1. Technical monitoring by senior staff.

2. Secretarial support.

3. Coordination among agencies.

4. Budgeting and personnel actions.

ALASKA AVALANCHE FORECAST CENTER
END-OF-SEASON REPORT
1982-83

Prepared by

John S. Eise
Michael B. Ek
Jill A. Fredston

Arctic Environmental Information
and Data Center
University of Alaska
707 A Street
Anchorage, Alaska 99502

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LIST OF ILLUSTRATIONS

1. INTRODUCTION

The operation of the Alaska Avalanche Forecast Center (AFC) was transferred to the Alaska Climate Center, Arctic Environmental Information and Data Center (AEIDC) of the University of Alaska, Fairbanks in December 1982. The Center operates from October through mid-April each winter and is funded by the Alaska Avalanche/Fire Weather Forecast System.

AFC personnel include two full-time meteorologists and one full-time glaciologist. Overall supervision is provided by the AEIDC Climate Center. The AFC provides daily mountain weather forecasts and backcountry snow stability assessments to state and federal agencies as well as private ski resorts for their use in avalanche control efforts. This information is also disseminated to the general public.

This report covers the basic operations of the Alaska Avalanche Forecast Center (AFC) for the winter season of 1982-83. It addresses program operations, storm and avalanche activity, and recommendations for future improvements.

2. PERSONNEL

The following personnel assignments were made this past season.

Name	Position	Action Taken	Date
James L. Wise	State Climatologist	Principal Investigator	12-1
John S. Eise	Meteorologist	Hired Full-Time	12-15
Al Comiskey	Meteorologist	Assigned as Temporary Part-Time Forecaster	12-20
Jill A. Fredston	Glaciologist	Assigned to Head Field Program and as Part-Time Forecaster	1-15
Michael B. Ek	Meteorologist	Hired Full-Time	3-28

3. TRAINING AND ACTIVITIES

John Eise received his certificate for 40 hours of "Avalanche Training for Transportation" held at Thompson Pass November 15-19.

Al Comiskey was trained as a temporary forecaster from December 20-30 and went on shift December 31.

Jill Fredston began development of the snow field program in January and was trained as a forecaster in early March. She also attended a number of avalanche workshops given by the Alaska Avalanche School including "Back-country Avalanche Hazard Evaluation Levels I and II" in Hatcher Pass and Black Rapids respectively, as well as "Meteorology for Mountaineers" and "Avalanche Hazard Evaluation in Land-Use Planning" in Anchorage.

John Eise gave a short presentation on the AFC avalanche program to a workshop on January 15 sponsored by the National Ski Patrol and the Alaska Avalanche School.

Several fixed-wing reconnaissance flights to observe avalanche occurrences and snow conditions were taken by AFC personnel. Field work throughout the winter was conducted by Jill Fredston.

Public service announcements with posters were sent to all radio and television stations and newspapers regarding our 271-4500 24-hour recording of avalanche and mountain weather conditions. The Anchorage Daily News printed the phone number in the weather box on the front page throughout the winter. Local stations, including such programs as Aviation Weather, announced back-country avalanche warnings.

Mike Ek was trained as a permanent forecaster from March 31-April 8 and went on shift April 11.

Jill Fredston was contracted by the Alaska Department of Natural Resources Division of Geological and Geophysical Surveys in June to work on the Richardson Highway Avalanche Atlas. She spent several days field checking in Thompson Pass and a week in Fairbanks analyzing avalanche paths using aerial photography.

4. OPERATIONS

COMPUTER

INTRODUCTION

The Avalanche Forecast Center (AFC) utilizes the computing facilities of the National Weather Service in Anchorage. The hardware consists of two linked PRIME 750 computers with appropriate interface devices for external communications. Two 300 megabyte and two 80 megabyte disk drives are connected for data storage and system operations. The AFC leases memory storage plus two ports, one dial up with modem for user access and one hardwired to a terminal for AFC personnel. The Center uses the computer for routine operations such as forecast compilation/dissemination and data base management. It also serves as an effective tool in research and program development activities. The following is a short summary of computer operations this past season.

1. A hard disk crash in late spring resulted in a loss of some avalanche programs and data. The last tape back-up the NWS had done was in November 1982 so all modifications to programs and data were lost after that time although some hard-copies are available. The NWS has now implemented new procedures which involve a complete system back-up each week.

Still, the AFC will do its own back-up on tape every week in the forthcoming season, with periodic hard-copies made.

2. Snowpit observation subroutines were developed and implemented with only limited use (except for the cooperator in Thompson Pass who was excellent in reporting avalanche occurrences and weather observations). Refinements and changes still need to be made to allow for easier user inputs.
3. Proper formatting and storage of all data has been difficult due to a lack of a standardized way of taking and recording all observations. Standardized observation forms have since been developed.
4. Users continue to have intermittent phone line problems which are normally caused by static. The only solution is a cleaner communications line and fine tuning of Silent 700 terminals.

WARNING LOG

During the 82-83 season, avalanche warnings were issued 7 times and remained in effect for a total of 30 days for the southern Talkeetna, western Chugach, and northern Kenai Mountains. Most warnings came early in the season when snowfall was the heaviest. The earliest warning was issued 28 October for all three mountain ranges. The latest warning was issued 1 December in the southern Talkeetna and 24 January in the western Chugach and northern Kenai Mountains. Areas around Turnagain Pass in the northern Kenai and east of Indian Pass in the western Chugach Mountains had the greatest number of warning days, 29 and 27 respectively. In the northern Kenai Mountains, there were 23 warning days for areas around Summit Lake and 15 for Moose Pass. The least number of warning days were in Chugach State Park in the western Chugach Mountains (13) and Hatcher Pass in the southern Talkeetna Mountains (10).

Figure 1. Warning days by area for the 1982-83 season.

DAY	SOUTHERN TALKEETNA	WESTERN CHUGACH		NORTHERN KENAI		
	Hatcher Pass	State Park	East of Indian Pass	Turnagain Pass	Summit Lake	Moose Pass
28 Oct	X	X	X	X	X	
29	X	X	X	X	X	
30	X					
3 Nov		X	X	X		
4		X	X	X	X	
5		X	X	X	X	
8 Nov	X	X	X	X	X	
9	X	X	X	X	X	
10		X	X	X	X	
11	X	X	X	X	X	
12	X	X	X	X	X	X
13	X	X	X	X	X	X
30 Nov	X	X	X	X	X	X
1 Dec	X	X	X	X	X	X
22 Dec				X		
23				X		
27 Dec			X	X	X	X
28			X	X	X	X
29			X	X	X	X
30			X	X	X	X
31			X	X	X	X
1 Jan			X	X	X	X
2			X	X	X	X
13 Jan			X	X	X	X
19			X	X	X	X
20			X	X	X	X
21			X	X	X	X
22			X	X		
23			X	X		
24			X	X		
TOTAL	10	13	27	29	23	15

RECORD-A-PHONE

From 3 November 1982 through 15 April 1983, the Avalanche Forecast Center received nearly 5400 phone calls on the public record-a-phone. The average number of phone calls per day for the season was 32 (see figure below). The average number of calls per day by month steadily increased from November 1982 to February 1983, decreased in March, and then increased slightly in April. The average number of calls was highest (40) on Fridays (0800 Friday to 0800 Saturday). The rest of the week, the number of calls averaged in the low to mid 30s.

Although most phone calls occurred on Friday, a large number of calls were recorded on days when the snowfall was heavy or when avalanches occurred. A total of 1366 calls were recorded on the 30 days when avalanche warnings were in effect compared to 4027 calls on the remaining 137 days. Thus, an average of 50 calls per day were recorded on warning days as compared to about 29 on nonwarning days.

Figure 2. Phone call summary by month and day.

MONTH	NOV	DEC	JAN	FEB	MAR	APR	SEASON
Avg # Calls	29	35	39	42	22	28	32

DAY	SUN	MON	TUE	WED	THU	FRI	SAT
Avg # Calls	27	31	35	33	33	40	32

QUANTITATIVE PRECIPITATION FORECAST VERIFICATION

Verification of the quantitative precipitation forecast for five selected co-op sites reveals that the occurrence or nonoccurrence of snowfall was correctly forecast 511 times in 688 cases or 74% of the time. The snowfall amount was forecast in the right category 373 out of 688 occurrences for 54% accuracy and within one category for 82% accuracy.

The forecast verification statistics presented here give only a rough estimate as to the forecasting abilities in the Avalanche Forecast Center because they are subject to a variety of the following errors. The accuracy of many of the observations are in question. The 24 hour time periods over which many of the observations were taken do not coincide with the forecast time periods. The determination of whether or not a forecast verified was uncertain in many cases because of inconsistent precipitation forecast categories. Over the 1982-83 season there were six different forecasters with different skill levels. Finally, the data base is still small, particularly in the large snowfall range.

Figure 3. Quantitative precipitation forecast verification.

SNOW vs NO SNOW

		Observation		
		Snow	No Snow	Total
Forecast	Snow	205	125	330
	No Snow	52	306	358
	Total	257	431	688

SNOW AMOUNT (inches)

		Observation					
		0	T-2	2-5	5-10	10+	Total
Forecast	High (> one catetory)	50	15	9	2	1	77
	High (one category)	75	20	7	1	4	107
	Hit (same category)	306	35	23	6	3	373
	Low (one category)	---	52	18	9	3	82
	Low (> one category)	---	---	16	16	17	49
	Total	431	122	73	34	28	688

5. WEATHER OBSERVATIONS

CO-OP OBSERVATIONS

REPORTING FREQUENCY

COOPS - The cooperative weather observers had an overall seasonal reporting frequency of 63 percent. The reporting frequency was below 50 percent in November 1982, increased to 77 percent in January 1983, then decreased to below 60 percent by April 1983. Hatcher Pass, Eagle River Visitor Center, and Alyeska Base had the best reporting frequencies--better than 90 percent in all months. Alyeska Midway reported above 80, Thompson Pass above 70, and Alyeska Top nearly 70 percent of the time. Thompson Pass maintained a reporting frequency above 85 percent for all months except November 1982. The lowest seasonal reporting frequencies were Girdwood (38%), Devil's Club (33%), Silvertip (10%), and Bird Creek (5%).

ALASKA RAILROAD - The overall seasonal reporting for Alaska Railroad (ARR) was about 40 percent. The reporting frequency for November 1982 was 45 percent, climbed to 50 percent in February 1983, then fell to less than 10 percent in April 1983. Almost all stations reported between 30 and 50 percent of the time with Tunnel, Wasilla, Gold Creek, Carlo, Healy and Dome reporting nearly 55 percent of the time. The low reporting frequencies can be attributed in part to the lack of weekend reports.

TIME OF OBSERVATION

COOPS - Most cooperative observers took their weather observations around one time of day with little deviation: Hatcher Pass by 0900, Glen Alps by 0700, and Thompson Pass by 0730. Although most Alyeska Base weather

observations were taken by 0900, they varied between 0500 and 1230. Alyeska Midway reports were taken anywhere between 0600 and 1700 with the majority taken by 1100.

REMOTE OBSERVATIONS

The three main sources of remote observations are (1) GOES stations, (2) Meteorburst stations, and (3) AHOS-T stations. Through cooperation with the River Forecast Center (RFC) we were able to obtain data from Meteorburst and AHOS-T sites, the former maintained by the U.S. Soil Conservation Service and the latter by the RFC.

The AFC and the Alaska Department of Transportation and Public Facilities (DOT/PF) installed a permanent ridgetop station on Penguin Point above the Seward Highway along Turnagain Arm. John Fise assisted Seward Highway Avalanche Project (SHAP) personnel Jim Hackett and Brian Canady in the installation of the weather station in early October. Unfortunately, the GOES instrumentation and telemetry equipment was not installed until December 22 due to weather-caused delays.

The AFC was able to receive data on the evening of December 22. Shortly thereafter riming problems at the site set in and after less than a week, we began to lose data intermittently due to low signal strength and then signal loss. Later inspection at the station indicated that the antenna had been rimed and bent towards the ground.

A PVC pipe was later installed over the antenna to prevent riming and a second battery added to increase power to the GOES unit. In addition, the skyvane was replaced by the sturdier Hydro-Tech anemometer (Phil Taylor) because the propeller was rimed and had broken off. Due to problems in programming the unit, no additional data was ever received. The unit was

taken off the mountain in the spring and sent back to the Boise Interagency Fire Center in Idaho.

The meteorburst sites functioned well all winter except for occasional capping of precipitation gages. The format of data as received from the master station is confusing and hard to interpret so hopefully this situation will be remedied.

The AHOS-T sites were well maintained by the RFC and functioned smoothly all winter. Data was entered into the computer automatically for immediate access by users.

6. FIELD PROGRAM

The primary goal of the field program during the past season was to improve the quality of the snow stability assessments by increasing the amount of snow data collected and better integrating snow and meteorological information.

Jill Fredston conducted the bulk of the field work for the AFC. She spent an average of 3 days a week in high use backcountry areas such as Turnagain Pass, Chugach State Park, and Hatcher Pass digging snowpits and fracture line profiles at a variety of elevations and aspects. Access to these areas was gained either by skis or helicopter and occasional fixed-wing reconnaissance flights were taken. The principal limitation on the amount of field work conducted was the lack of personnel in the AFC to form a field team. Often, Fredston coordinated field trips with cooperating organizations such as the Seward Highway Avalanche Project, Alyeska, and particularly, the U.S. Soil Conservation Service. While this was sometimes logistically difficult, it offered the advantage of observing the operations of other avalanche

programs and gaining a better understanding of local conditions and site specific problems. Observation of control work results along the Seward Highway and at Alyeska helped in assessing backcountry snow stability conditions. Finally, snowpit and avalanche occurrence data was also sent in to the AFC by a number of organizations and individuals including a cooperator in Hatcher Pass.

There are a number of ways in which the field program can be improved next season. These include:

-- Regular site visits to obtain continuous profiles of the snowpack (e.g., depth, water equivalent, density, snow metamorphism, temperatures). If possible, this information should be correlated with local meteorological information.

-- Improve data base on avalanches. This should include snowpit data, fracture line profiles, and avalanche occurrence information (e.g., location, size, frequency). Photographic documentation should also be undertaken.

-- More rapid and frequent collection of snowpit and avalanche occurrence data from cooperators.

-- Increase the number of cooperators in order to obtain more information concerning backcountry conditions.

-- Develop a qualitative model which can be used as a forecast tool to help evaluate the field data in terms of snow stability.

-- Train Eise and Ek to help conduct field work.

7. SUMMARY OF STORM AND AVALANCHE ACTIVITY

The following is a general summary of storm and avalanche activity across the southcentral mountains. Detailed data on precipitation and storm occurrence may be referenced in Figures 4 and 5 respectively.

OCTOBER-NOVEMBER

Heavy snowfalls in late October and early November created a significant avalanche cycle, briefly closing the Seward Highway and creating unstable conditions in much of the backcountry. Approximately five additional storm periods occurred during November, producing 2-5 inches or more of water equivalent and 2.5-6 feet of snow across the southcentral mountains with heaviest amounts from Alyeska into Thompson Pass. These early heavy snowfalls were extremely significant because the ground surface was covered before it was frozen, a phenomena which led to significant glide crack development later in the season. Generally, mild temperatures (interrupted by a brief cold snap during the third week in November) warmed the snowpack and allowed it to stabilize.

DECEMBER

A storm that began in late November and continued into early December brought heavy rain and snow loads which triggered a large avalanche cycle. The Richardson Highway was closed for two days during this period. During the cycle, most slides ran on a rain crust but then some began to break through to an old temperature gradient layer. A second storm moved in during the second week of December and blanketed most of the southcentral mountains. Three other brief storms occurred during the mid-part of December mainly from

Alyeska to Thompson Pass. Another storm hit from Christmas to the end of the month. Warming temperatures allowed the snowpack in some areas of the western Chugach and Kenai Mountains to begin to go isothermal and many glide cracks appeared. A number of small pocket slides occurred. By the close of December, water equivalent amounts ranged from 2-3 inches in the Talkeetna Mountains up to 10 inches or more from Alyeska to Thompson Pass. Snowfall amounts were less than in November but still were 1-2 feet in the Talkeetna and western Chugach Mountains with nearly 8 feet in Thompson Pass.

JANUARY

Warmer temperatures with a brief storm period in the first week gave way to sub-zero temperatures during the middle of January. A major storm system pushed in during the third week and produced a large avalanche cycle especially in the Turnagain Arm area. Most of the releases occurred within the new snow layer and were 1-3 feet deep. Overall January precipitation was light with water equivalents generally 0.10-1.5 inches with amounts of 3-5.5 inches from Alyeska to Thompson Pass. Snowfall amounts were around one foot except 3-5 feet in the Valdez-Thompson Pass area.

FEBRUARY

The first week of warm temperatures and a storm cycle was followed by a week of cold, clear weather. A series of storms as well as warm temperatures during the latter half of the month caused a large number of isolated glide plane releases which continued into the beginning of March. Glide cracks in the Turnagain Arm area which had originally developed on south and southeast exposures began to be seen on all aspects. Most of these occurred

between 1800 and 2200 feet. Overall precipitation changed little from January.

MARCH

March was a relatively dry and quiet month except for continuing glide plane releases and occasional human-triggered wet slab avalanches. Temperatures were mild with precipitation generally less than one inch water equivalent and 1-2 inches of snow except for roughly one foot in Thompson Pass. The snowpack received extensive radiational heating and became thin at lower elevations.

APRIL-MAY

April's weather was similar to October and November. Heavy snow loads at the start of April generated a number of avalanches. Most of these slid on the old snow surface which had been exposed for a long time period. Radiational heating and rapid melting of the isothermal snowpack occurred. Isolated glide crack activity persisted into May.

Figure 4. Precipitation summary November 1982 - March 1983.

STATION	NOV	DEC	JAN	FEB	MAR	SEASON
Water Equivalent Amounts						
Southern Talkeetna Mountains						
TKA	1.70	1.80	0.46	0.46	0.09	4.51
HPS	3.00	2.92	0.00	0.45	0.00	6.37
Western Chugach Mountains						
ANC	1.72	0.11	0.21	0.23	T	2.27
GLP	1.90	1.70	1.12	0.75	0.03	5.50
MTYB	5.30	10.35	5.53	4.46	2.80	28.44
HOM	1.61	4.13	1.46	1.57	0.67	9.44
Eastern Chugach Mountains						
*TPS	-	9.50+	2.93+	7.22+	0.22	19.87+
VWS	5.15	8.96	3.10	3.24	0.81	21.26
Snowfall Amounts						
Southern Talkeetna Mountains						
TKA	27.0	10.3	11.9	11.0	2.1	62.3
HPS	36.0	26.0	00.0	6.0	00.0	68.0
Western Chugach Mountains						
ANC	23.4	1.9	3.7	4.3	T	33.3
GLP	24.0	20.0	13.0	10.0	T	67.0
MTYB	55.5	13.0	14.5	3.0	1.0	92.5
HOM	5.0	1.3	11.0	1.1	T	18.4
Eastern Chugach Mountains						
*TPS	-	93.8	31.7	39.1	14.0	178.6
VWS	59.4	56.9	60.2	31.1	10.9	218.5

*Does not include November
+Totals may be greater due to missing observations

Station Identifiers:

TKA - Talkeetna
ANC - Anchorage International Airport
MTYB - Alyeska Ski Resort-Base
TPS - Thompson Pass
HPS - Hatcher Pass
GLP - Glen Alps
HOM - Homer
VWS - Valdez

Figure 5. *Storm summary November 1982 - March 1983.

	Talkeetna Mtns		Western Chugach Mtns				Eastern Chugach Mtns	
	TKA	HPS	ANC	GLP	MTYB	HOM	TPS	VWS
Nov 1-2	X	X	X	X		X	-	X
Nov 4-5	X		X	X	X	X	-	X
Nov 8-14	X	X	X	X	X	X	-	X
Nov 22					X	X	-	X
Nov 24				X	X		-	X
Nov 29-Dec 2	X	X	X	X	X	X	-	X
Dec 5-9	X	X	X	X	X	X		X
Dec 12-13					X	X	X	X
Dec 16-17					X	X	X	X
Dec 20					X	X	X	X
Dec 24					X	X	X	X
Dec 26-30	X	X		X	X	X	X	X
Jan 1				X	X	X		X
Jan 3-4	X				X		X	X
Jan 6-8	X		X	X	X	X		X
Jan 15-20	X		X	X	X	X	X	X
Jan 27				X	X	X		X
Jan 31-Feb 2				X	X	X	X	X
Feb 4-8	X		X	X		X	X	X
Feb 18-20	X	X	X		X	X	X	X
Feb 24	X				X			X
Feb 26-28	X		X	X	X	X	X	X
Mar 10-12	X			X	X		X	X
Mar 15	X				X			X

Total = 24 Storm Periods

*Notes. Indicates days when 3 or more stations reported precipitation. X's show which stations received precipitation during the storm period. Thompson Pass (TPS) is not included in the November statistics.

8. PROBLEMS - ACTIONS

Problem - No policy statement for AFC or comprehensive written operations plan.

Action - A written operations plan, including a policy statement, has been drawn up.

Problem - Lack of snowpit and avalanche occurrence data base.

Action - As previously discussed, selected sites will be visited regularly for collection of snow data. Where possible, these sites are in the vicinity of weather observation sites in order to facilitate later correlation studies. The network of cooperators has been built up to enhance data collection in backcountry areas. Procedures for collecting avalanche occurrence data, especially after storms, have been drawn up and included in the operations plan. The AFC will place a high priority on compiling a data base including snowpit, avalanche occurrence, and meteorological information.

Problem - The lack of standards for weather, snowpit and avalanche occurrence observations is a handicap in developing a complete and comprehensive data base management system.

Action - The AFC has drawn up a set of standards. Once adopted, these standards should be adhered to by the AFC and users.

Problem - Insufficient weather observation coverage to properly forecast weather and snow conditions in southcentral Alaska.

Action - The following observation sites are being established.

Co-op Observers Site	Agency/Individual
1. Summit Lake	DOT/PF
2. Moose Pass	DOT/PF
3. Arctic Valley	U.S. Army
4. Hope	NWS
5. South Fork Eagle River	NWS/RFC
6. Ernestine (Thompson Pass)	DOT/PF
7. Portage Pass	ARR or USFS
8. Sheep Mountain	Private X-Country

Remote Observation Site	Agency
1. Penguin Point	DOT/PF
2. Andy Simon's Mountain	DOT/PF
3. Wedge	CSP
4. Thompson Pass - Divide	DOT/PF and SCS
5. Hatcher Pass	Private (Dave Hamre)
6. Bear Valley/Portage Pass	ARR

Problem - Late installation of remote observation stations (i.e., meteor-burst).

Action - Remote stations are being installed by October 15 so that proper installation and testing are not precluded by weather and ground conditions.

Problem - Lack of sufficient quantitative precipitation forecast aids in relation to snow amount vs water equivalent.

Action - Have observers take humidity measurements. Snow amounts will then be compared with water equivalent measurements in relation to humidity to establish any correlation. Results will aid snow amount forecasts. In addition, other forecast tools will be developed.

Problem - Forecast verification, especially of quantitative precipitation, is difficult because observation time periods are inconsistent with forecast time periods and because of the use of inconsistent precipitation categories by the AFC. In this context, inconsistent means varying in width, i.e., 0-.05 vs 0-.02 vs .01-.07, etc.

Action - Have cooperative observers take all observations at one time of day, preferably 0700. Use consistent categories of precipitation for forecasting which will enable better tabulation of forecast accuracy when verifying, i.e., 0, 0-.05, .05-.10, .10-.25, etc.

Problem - Need for applied research and equipment testing sites to develop new methods of collecting data and an orographic precipitation model.

Action - Set up research sites along the Seward Highway at Devils Club and along the Richardson Highway in Thompson Pass at the Divide weather site.

Problem - Non-accountability of weather equipment by user agencies.

Action - The AFC will maintain tighter control of equipment. Users should return equipment to the AFC by May 1.

ADDENDUM TO ALASKA AVALANCHE FORECAST CENTER
END-OF-SEASON REPORT
1982-83

This addendum concerns the avalanche program in southeast Alaska. This avalanche warning program is primarily concerned with Juneau and the vicinity around Juneau. If conditions are deemed serious enough, the Juneau office of the National Weather Service will issue advisories for other areas as well.

The AA/FWFS pays for a snow technician employee of the Department of Transportation and Public Facilities. The 1982-83 season was the first with a full-time snow technician. The snow technician is responsible for assessing snowpack stability and taking weather observations at a supplemental station at Salmon Creek. Observations are also received on a regular basis from the Eaglecrest Ski Area on Douglas Island. Daily forecasts for the backcountry areas are a cooperative effort of the National Weather Service lead forecaster and the snow technician. The daily forecast is disseminated to the public by means of a 24-hour telephone recording. During periods of high hazard, the forecasts are disseminated to the news media (newspapers, radio, and television stations).

The NWS and DOT/PF work closely with the Juneau Interagency Disaster Planning Committee composed of local, state, and federal government agencies. There are monthly meetings of the group to make sure that plans are current in the event of a high avalanche threat or an occurrence involving people. Occasionally the highway south of Juneau is closed temporarily due to avalanches or the threat of avalanches.

The 1982-83 season in southeast Alaska was relatively mild. There were 2 or 3 days with avalanches along the highway south of Juneau but none of them reached the highway. There was also a small avalanche in the Behrends Avenue slide path but it did not reach any of the structures in the runout zone.

MINUTES OF THE ALASKA AVALANCHE WORKING GROUP MEETING
October 25, 1983

James Wise, state climatologist at the Arctic Environmental Information and Data Center (AEIDC), opened the meeting at 9:00 a.m., Tuesday, October 25, 1983 with staff introductions: Jill Fredston, snow specialist and project leader; John Eise, meteorologist; and Mike Ek, meteorologist.

John Eise reviewed last year's end-of-season report. Burt Goldenburg, National Weather Service Deputy, Division Alaska Region, pointed out our omission of the program in southeast Alaska. An addendum will be written about the program in the southeast.

Jill Fredston explained this season's snow/field program. An average of 4 days per week field work, with a focus on high use backcountry areas, will be conducted by AFC personnel.

John Eise reviewed the 1983-84 operations plan for the Alaska Avalanche and Fire Weather Forecast System (AA/FWFS). Jerry Nibler of the National Weather Service River Forecast Center (RFC) said there should be more cooperation between the Avalanche Forecast Center (AFC) and the RFC in regard to sharing observation sites. Doug Fesler (Alaska Division of Parks) expressed concern about the location of the meteorburst station planned for Behrends Avenue in Juneau. Both Doug Fesler and Burt Goldenberg thought that Anchorage should work more closely with Juneau, and that Juneau should standardize its forecasting, perhaps by being included in Anchorage's operation.

The group broke for coffee and the meeting resumed after 10 minutes.

Pending legislation affecting the Alaska Avalanche/Fire Weather Forecast System was discussed by Jim Wise. In the legislation (HB 110), the Arctic Environmental Information and Data Center is designated to represent the state in the operation of the system. Jim Wise stated that AEIDC was willing to accept the responsibility but had done nothing to actively seek it. A motion was made and passed for the working group to support the pending HB 110. It was also decided that a copy of the minutes of the meeting which show the working group's support of the legislation be sent to Representative Miller, the original sponsor of the legislation.

Jim Wise presented the 1983-84 season budget for the Avalanche Forecast Center in terms of the amount budgeted for each of four major tasks. The total budget of $141,000 was approved by the group. Projected costs of the program in the 1984-85 season, allowing for a 5% increase due to inflation, were $148,200. Also with the projected budget for this 1983-84 season, there will be about $30,000 less carried over into the fire weather season. Therefore, a recommendation was made to increase the state appropriation from $275,000 to $312,000 to be able to maintain the state's activity in the AA/FWFS at the level deemed necessary by the group.

Doug Fesler suggested that the AA/FWFS secure funds to make avalanche training films because there are no quality films in the U.S. He said the films would be marketable in Canada and the U.S., as well as other countries. Initially, six 10- to 15-minute films, with different topics, should be made. The entire working group supported the idea.

The meeting ended at 11:30 a.m.

AVALANCHE WORKING GROUP MEETING
AGENDA

Tuesday, October 25, 1983

9:00	-	Introduction and Opening Remarks (Jim Wise)
9:15	-	Highlights of 1982-83 Season Report (John Eise)
9:30	-	Snow/Field Program for 1983-84 Season (Jill Fredston)
9:45	-	Operations Plan 1983-84 Season (John Eise)
10:30	-	Coffee Break
11:00	-	Pending Legislation on the Program
11:15	-	Financial Plan 1983-84 (Jim Wise)
11:45	-	Projected Financial Plan 1984-85 (Jim Wise)
12:00	-	Adjourn

AVALANCHE WORKING GROUP MEETING
October 25, 1983

Gerry Nibbler	NWS	P.O. Box 23, 701 C Street, Anchorage, Alaska 99503
Vic Baer	USFS	Ranger District, Pouch 110-469, Anchorage, Alaska 99511 (345-5700)
Doug Fesler	ASP	619 Warehouse Ave., #210, Anchorage, Alaska 99501 (264-2125)
Wallace Watts	USFS	2221 E. Northern Lights Bldv., Anchorage, Alaska 99505 (276-4246)
George Pollitt	SAA Office State Troopers	P.O. Box 6188 Annex, Anchorage, Alaska, 99502 (269-5716)
Jack Morrow	DOT/PF	P.O. Box 507, Valdez, Alaska 99686 (835-4322)
Glenn Hare	USFS	Ranger District, Pouch 110-469, Anchorage, Alaska 99511 (345-5700)
Burton Goldenberg	NWS	701 C Street, P.O. Box 23, Anchorage, Alaska 99503 (271-5126)
James L. Wise	AEIDC	707 A Street, Anchorage, Alaska 99501 (279-4523, extension 42)
Jill Fredston	AEIDC	707 A Street, Anchorage, Alaska 99501 (279-4523, extension 36)
John Eise	AEIDC	707 A Street, Anchorage, Alaska 99501 (279-4523, extension 35)
Mike Ek	AEIDC	707 A Street, Anchorage, Alaska 99501 (279-4523, extension 35)

United States Department of Agriculture
Forest Service
State and Private Forestry
2221 E. Northern Lights Blvd., Suite 10W
Anchorage, Alaska 99508

3210

March 23, 1982

Dick Hamilton
Dept. of Transportation and Public Facilities
Box 3-1000
Juneau, Alaska 99811

Dear Dick:

Reference is made to our past conversations concerning the AA/FWFS funding which was RSA (#3521) to your Department from Department of Public Safety-Alaska State Troopers.

The funding was transferred to your department to help establish a satellite avalanche forecast center in Juneau this winter and at the same time assist in your avalanche problems on the state highway system in the area. From your cooperation, this has become a reality and from what I hear, has been received quite well by the general public.

Though the avalanche problem on the highway is over for the season, the back country activity will continue for some time with the longer and warmer days ahead. Because of this, it is essential the program continues until the back country avalanche danger subsides or until the cross country skiing activity fades out for the year.

Since funding is still available from the RSA, I would like to have Gunner Noreen be retained until April 29 to carry out his duties in snow pack evaluation and avalanche forecasting and at the same time perform advance work for the next winter. This will allow the program to get a head start plus save funding for next winter.

The following is a list of items that Noreen should do during this period.

1. Continuation of the Snow pit evaluation and avalanche forecasting.
2. Select a site location for the meteorburst automatic remote weather station.
3. Acquire the necessary land use permits for remote weather station.
4. Construct a fiberglass housing for the remote weather station radio equipment similar to the one DOT/PF installed on Penguin Ridge along [illegible] Highway.
5. Prepare radio tower to handle the antenna and weather sensors.
6. Order the necessary sensors and related equipment for the weather station. (See attached list).
7. Build a shipping box for sending the telemetric equipment and weather sensors to Anchorage during the summer.

8. Select locations for weather stations along road system that is accessible by skis.
9. Construct two more snow stakes for Mt. Juneau and Mt. Roberts
10. Behrends Avenue Computerized Analaysis Report-investigate possible use and implementation of program.
11. Prepare preliminary operating plans for next season.

The Bureau of Land Management has three Meteorburst telemetric stations they are not using and have agreed to lend them to the AA/FWFS for remote weather platforms during the winter. In the summer, they'll be used as remote weather platforms for on going fires. One of these platforms will be assigned to the Juneau area during the winter. This will allow the Avalanche Forecast Center to obtain high altitude weather data which is vital in helping prepare a forecast. As part of the agreement, the AA/FWFS will purchase the sensors and any related equipment needed to make them operational.

With any excess RSA funds after wages and transportation are taken out could you purchase the weather sensors and related equipment show on the attached list. The items marked with an asterisk need to be shipped to Anchorage in care of me so the equipment can be used for the fire season. Then in the fall, they will be shipped back along with items we have on hand that's needed for the winter season.

If you have any questions, please give me a call.

Sincerely,

WALLACE J. WATTS
Program Manager AA/FWFS

cc:
Gunner Noreen
Gary Morrison

1/ Weather Measure Corp.
Division of Systron Donner
PO Box 41257
Sacramento, CA 95841
Telephone: (916) 481-7565

2/ Meteor Communications Corp.
1819 South Central No. 26
Kent, WA 98031
Telephone: (206) 872-8890
Don Sytsma

3/ Local Purchase

4/ Robert E. Riabe Co.
2211 5th Ave.
Seattle, WA 98121

5/ The Energy Store
2934 Spenard Rd.
Anchorage, AK 99503

6/ Graybar Electric Co.
5501 'A'
Anchorage AK 99502

7/ Meteordata
5630 Silverado Way
Anchorage, Ak 99502

Note: in the secode up grade the electronic package has to be sent down to Meteor Communications Corp. for them to install it.

Another option on the pruchase is to transfer the funds on all the items except for local purchase to USDA-Soil Conservation Service who will be ordering the same items for the other two meteorburst platforms. This would eliminate property accountability on DOT/PF part.

There is an estimated $280.00 additional charges for misc. hardware to assemble the whole package together.

Total cost to make the meteorburst platform operational is $6700.25 not including the permanent shelter cost.

Notes to Representative Mike Miller:

Dear Mike:

This proposed legislative amendment incorporates wordage from the enclosed two other drafts on the same subject:

(1) 13-0033 Hein 10/25/82
(2) One developed recently by the State Troopers, Department of Public Safety.

The changes needed are essentially housekeeping ones. Some of the key points to keep in mind are:

1. The original statute, Chapter 119, HCS CSSB301, effective July 1, 1980, provided only for an avalanche warning and control system. Current operations include a fire weather forecast system, to enable a stable year-long organization of professional meteorologists and forecasters.

2. Rather than referring to the system as a warning operation, it is preferred to recognize it as a forecasting service. Hence, the name Alaska Avalanche and Fire Weather Forecast System (AA/FWFS).

This nomenclature is specified in cooperative agreements, program planning and budgetary data, etc. The acronym AA/FWFS is also used throughout documents.

3. The lead state responsibility for operation of the system has been formally agreed to and shifted from the Department of Public Safety to the Department of Natural Resources.

4. Private enterprise cooperation and participation in the system already exists.

5. The term snow avalanche is preferred over just avalanche, in order to specify only snow slides; it does not include mud slides or rock debris avalanches.

6. The control plan features of the Act, Section 2, (7) have been expanded to include direct control measures on certain heavy-use designated recreation areas, such as developed ski areas, etc; previously, the control measures related only to state highways.

We would appreciate your sponsoring this amendment as soon as possible in the forthcoming Session. Should there be any questions by your legislative counsel, I would be happy to discuss them. My phone number is 586-7152.

Sincerely,

Robert C. Janes
Director, State and Private Forestry

Enclosures

P.O. Box 432
Douglas, Alaska 99824

May 6, 1983

Representative Mitch Abood, Chairman
House State Affairs Committee
Alaska State Legislature
Pouch V (MS 3100)
Juneau, Alaska 99811

Representative Albert P. Adams, Chairman
House Finance Committee
Alaska State Legislature

Dear Representative _____

This letter is in support of the enclosed House Bill No. 110, sponsored and introduced in the present session on 1/24/83 by Representative Mike Miller. It has been referred to State Affairs and Finance, where it now sits.

This bill is an amendment to legislation passed in 1979 pertaining to an avalanche warning system for Alaska. It is primarily a housekeeping measure, with word changes that recognize the scientific forecasting value of the system rather than implying scare tactics through emphasizing warnings. However, should extreme avalanche danger develop, then of course appropriate warnings would be disseminated to the public. It also recognizes the associated value of the fire weather forecasting part of the overall system, and the nomenclature of the project therefore becomes the Alaska Avalanche and Fire Weather Forecasting System (AA/FWFS).

Probably the most significant change in the statute is a proposed shifting of responsibility from the Department of Public Safety to the Department of Natural Resources, in representing the state for operation of the system. Experience to date has shown this to be a more practical approach, since DNR now plays the major role in conducting the public education and prevention aspects of the program. Technical avalanche awareness workshops are offered throughout the state by DNR. In other words, DNR is closer to an on-the-ground application in a working mode than is DPS. By prior agreement between the two Departments, this change appeared to be needed. The change should therefore not meet with any opposition, from the standpoint of the Departments involved.

While employed by the U.S. Forest Service, I was personally helping to formulate the original legislation which was sponsored by Representative Mike Miller to get the system going on a statewide basis. Although I have recently retired from that agency, I still maintain a personal interest in the AA/FWFS for its most effective operation.

I urge you to schedule this bill on the calendar at the earliest possible time, to enable possible passage during the current session. In this way, DNR would be in a position to followup with regular program planning and a budgetary request for Fiscal Year 1985. DPS has already submitted a budget request for Fiscal Year 1984 which is presently under routine review. This bill therefore does not

involve any new fiscal impacts from the standpoint of any needed special supplemental appropriations.

Sincerely,

Robert C. Janes

Enclosure

cc: Reprentative Mike Miller
House State Affairs Committee

Representative Jim Duncan
House Finance Committee

Wallace Watts, USFS Anchorage
Program Director AA/FWFS

Gary Morrison, USFS Juneau
Division of Recreation

Avalanche forecasts reduce risks on slopes, roads

Joyce Weaver

For most of us, it's a handy little phone number that just might change our plans — and save our lives — when we're contemplating a drive down to the Kenai or a ski outing in the mountains back of Anchorage.

But for Bob Thompson of the National Weather Service, 271-4500 is pretty much a full-time concern, if a seasonal one. When summer comes, his focus will shift to a hotter topic — forest fires.

The avalanche forecasting system is two years old in its present form: a cooperative effort of federal and state agencies that are variously responsible for land, recreation, highways and weather analysis.

COOPERATION ISN'T always easy for folks with such diverse backgrounds and goals, Thompson admits. Rugged backcountry park rangers dig snowpits with their shovels and analyze the accumulated snowpack. Meteorologists deal with computers and satellite data, as well as local temperature, precipitation and wind information. The state highway folks want to protect not only the traveling public, but also the work crews who face the hazardous task of removing the results of avalanches from Alaska's highways.

But the product of the joint venture appears to prove it's working: the recorded forecast is generally updated at 10 a.m. and 4 p.m. daily, or whenever the weather brings much change in the hazards in South-central Alaska. The public places an average of 25 to 30 calls to the recording daily; up to 60 or 70 when there's a new snowstorm, and fewer on Sundays and Mondays.

When it's so easy to become informed, a skier has no excuse for making a risky assumption.

For instance, right now you might assume all that rain that reached right up into the mountains of South-central last week had cemented the snowpack into something that couldn't possibly budge till breakup.

But if you'll give 271-4500 a call, you'll find that some south-facing slopes may be wind-loaded with snow by the strong northerlies of the past couple of days.

Thompson notes there's also a new service specifically for motorists, a highway avalanche closure report at 337-6742.

MOUNTAINEERS AND SKIERS who want to become knowledgeable about avalanche hazard evaluation and rescue can spend an intensive few days doing just that at any of five upcoming Alaska Avalanche School workshops.

The sessions are sponsored by the state parks and division of geological and geophysical surveys with help from the U.S. Forest Service and U.S. Army.

LEVEL I WORKSHOPS (for any experienced mountaineers) are planned Feb. 19-22 at Thompson Pass, March 2-5 at Hatcher Pass and March 11-14 at Black Rapids. Level II workshops (for those who have attended Level I or equivalent training) are March 25-28 at Summit Lake Pass and April 2-5 at Thompson Pass.

Participants must be in good physical condition, able to ski uphill and down and prepared to stay outdoors all day in foul weather.

Registration, food and lodging information are available from the parks office, 619 Warehouse Drive, Suite 210, Anchorage 99501, telephone 274-4676.

Joyce Weaver is a writer for The Anchorage Times.

Anchorage Times 3/8/82

JUNEAU, ALASKA, TUESDAY, APRIL 20, 1982 12 PAGES 35¢

Ready, Aim, Fire

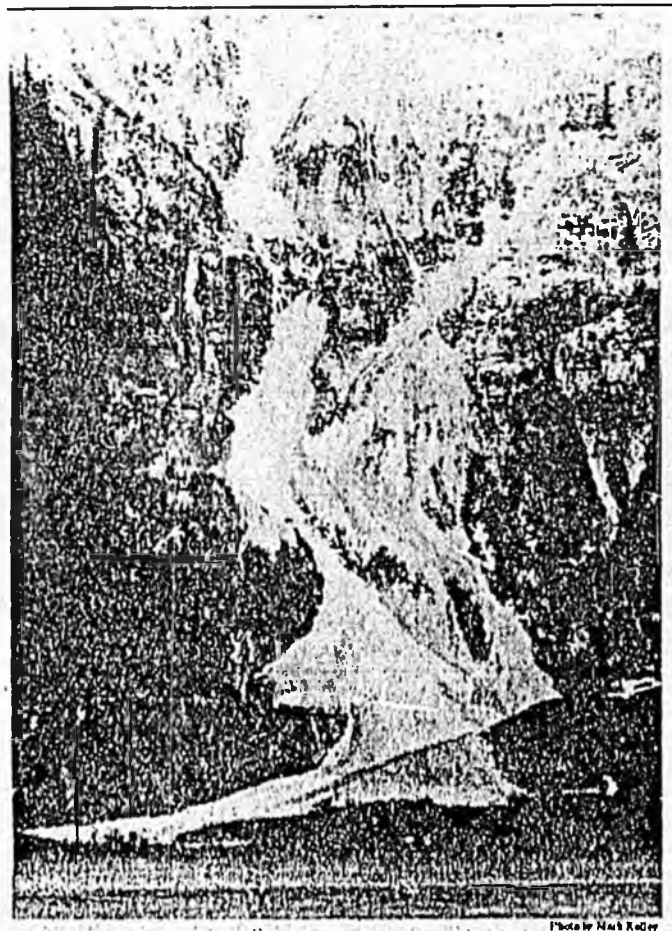


Photo by Mark Kelley

MONDAY'S AVALANCHE — This avalanche, which cascaded down along Thane Road Monday morning, prompted the state to blast down other potential avalanches using a 105 mm gun. No damage or injuries were reported in Monday's avalanche.

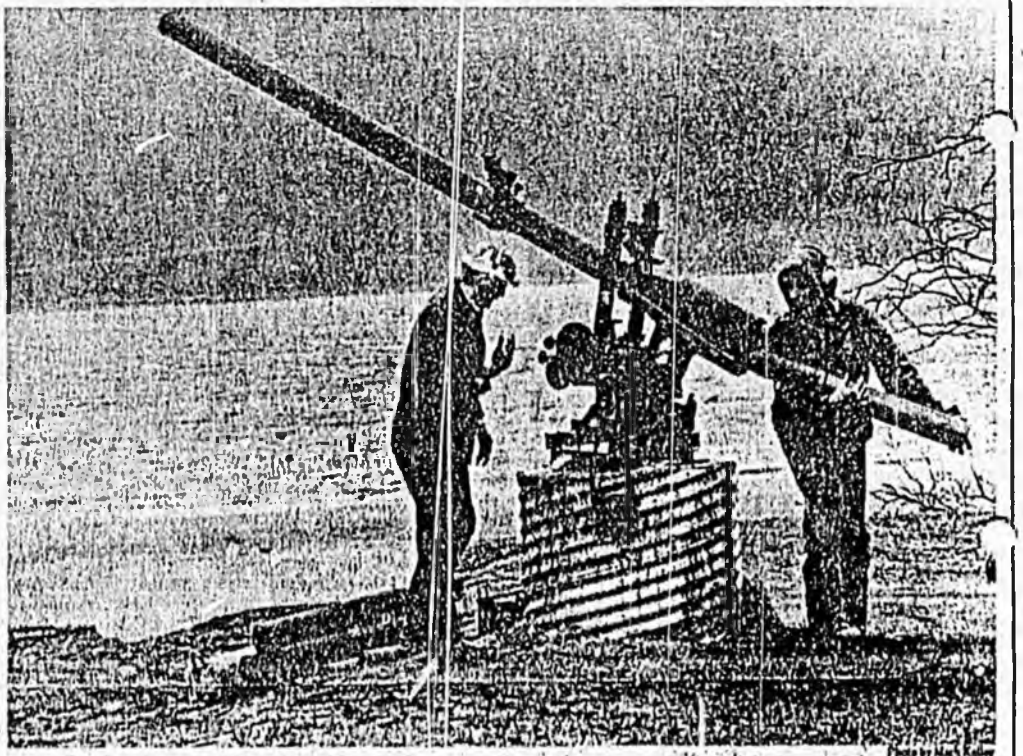


Photo by Mark Kelley

AVALANCHE CONTROL — John Mallinger of the state Department of Transportation, loads a shell into a 105 mm gun, while Bill Lockhart checks the settings on the two prepare to blast down an avalanche along Thane Road from Douglas, as a part of the department's avalanche-control program.

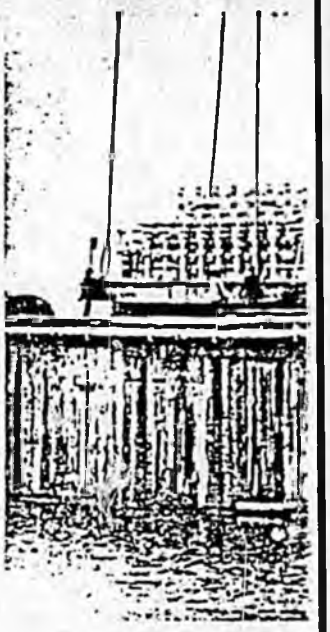
The Alaska Avalanche School conducted 12 workshops on avalanche safety this season, ranging from two-day, introductory lessons (one day in the classroom, one day in the field) to four days of advanced instruction in the back country. Doug Fesler, who coordinates the school for the Alaska Division of Parks, says classes fill up rapidly because of the large number of back-country travelers in the state, and also because of the low registration fees: Workshops vary in price from free to $40. Similar workshops in the Lower 48, and there are only a few, would cost $200 or more. Alaska is a good setting for avalanche training because of the combination of the steep terrain and the high incidence of avalanches. Food and lodging was available at or near each of the workshop locations in the mountains near Skagway, Palmer, Valdez, Anchorage, Juneau, Delta Junction, Girdwood, and on the Kenai Peninsula.

Participants in all but the introductory and classroom workshops must be in good physical condition, able to ski uphill and down in variable terrain and changing snow conditions, and must be prepared to remain outdoors in foul weather all day. The advanced courses require mountaineering or ski mountaineering experience. Sponsoring the worksnops with the Division of Parks are several city, state, and federal agencies, as well as some businesses from the private sector. For additional information contact the Alaska Avalanche School, State Division of Parks, 619 Warehouse Drive, Suite 210, Anchorage, Alaska 99501.

BOTH PHOTOS BY TOM GRESHAM, STAFF

One of the techniques taught in the avalanche seminars is digging a "hasty pit" to examine the layers of the snow pack. Instructor Nick Parker, left, watches the progress of a student digging (...) three feet of snow on a steep hillside. The kit in the foreground is used in evaluating avalanche potential and includes thermometers, reference books, magnifying glasses, a whisk broom, and other items.

Snow comes in many forms — both stable and unstable. Students attending sessions of the Alaska Avalanche School learn to identify the various snow forms, sometimes by examining the crystals with a high-power magnifying glass, as this student is doing.



The city of Valdez offlc: floating dock on Octol unloaded parts from an Al Lynden Transport truck pc units, barged from Seattle, Prudhoe Bay.

U.S. Borax's 9.5-mile ro to the Quartz Hill mol Ketchikan was 30% compl scheduled for September 1 of South Coast, Inc., the co talks over plans with road Borax plans to build a city of the Wilson River. Develo estimated $1 billion. The n Ketchikan and is one of th known. Mining is expected years.

OPS

- DNR
  - State Parks
    - Ak Aval School
      - (intensive 4 day aval hazard evaluation)
- AEIOC
  - Ak Aval Fcst Cntr
    - Responsibilities
      - (1) nat wx backcountry & aval fcsts
        - a) gen public
        - b) agencies
      - (2) statewide aval occurrence data base
      - weather. (3) applied research
      - (4) ~~[illegible]~~ aval. education
- DOT/PF
  - Aval spec'l in Juneau
    - (1) control work (Thane Rd)
    - (2) backcountry aval hazard fcsts

Arctic Environmental Information and Data Center
707 A Street
Anchorage, Alaska 99501

PHONE (907) 279-4523

UNIVERSITY OF ALASKA, FAIRBANKS

January 20, 1984

Honorable Al Adams
Chairman, Committee on Finance
Alaska House of Representatives
Pouch V
Mail Stop 3100
Juneau, Alaska 99811

Dear Mr. Chairman:

This responds to the request of Ms. Lou Ann Cutler of your staff that the management of the University of Alaska's Arctic Environmental Information and Data Center (AEIDC) take a position on agency designation of responsibility in HB 110.

There exists a multiagency agreement on the operation of Alaska's fire weather and avalanche forecasting system. The conduit for state funds to interagency program cost sharing has been the Department of Public Safety. AEIDC's costs for providing technical forecast services for state agencies in the past year were made via a Reimbursable Services Agreement from Public Safety.

All agencies (including AEIDC) are in general agreement that the Department of Natural Resources (DNR) should replace Public Safety in the statutes as lead responsible state agency and funding recipient for the avalanche/fire weather program. Last year DNR expressed the thought that AEIDC should be given the task. AEIDC is willing to have the statute indicate cooperative program effort between DNR and AEIDC but firmly believes that state program leadership be vested in DNR and that funds be allocated to the DNR budget rather than the university budget.

AEIDC's role is to provide technical services for forecasting by providing staff meteorologists and snow experts of the Alaska State Climate Center here at AEIDC to the program. In the second year of AEIDC service the program was underfunded with $275,000 of state funds. Of this amount $144,100 was allocated for AEIDC services. An additional allocation of $107,404 has been made from federal sources to AEIDC.

Future federal funding to AEIDC will be no more than $107,000 per year. If AEIDC is to expand the geographic coverage of fire weather and avalanche forecasts as currently requested by the agencies involved, then additional funds in the amount of $126,260 state funding will be needed for fiscal year 1985, to create program account of $270,360 in state funds for AEIDC services.

Thank you for this opportunity to comment upon HB110.

Sincerely,

David M. Hickok
Director

DMH/nlw

AEIDC AVALANCHE/FIREWEATHER FORECAST SYSTEM FUNDING REQUIREMENTS

		FY84			FY85	
		STATE	FEDERAL	ANTICIPATED FEDERAL	STATE	FEDERAL
100	PERSONAL SERVICES	90,690	56,115	16,667	175,990	66,740
200	TRAVEL	9,000	344		9,000	2,000
300	CONTRACTUAL	8,628	10,761		7,200	15,860
400	COMMODITIES	2,000	464		1,000	700
500	EQUIPMENT				10,000	
800	MISCELLANEOUS *	33,782	19,720	3,333	67,170	21,700
	TOTAL	144,100	87,404	20,000	270,360	107,000

Code 800 Miscellaneous represents overhead @ 20% for positions based in federal quarters, 45% for all other costs except equipment.

Continuing years would need to be funded with a 5% inflationary factor, or whichever is accepted in the budget process.

POSITIONS:	Full-time	FY84	5	FY85	6
	Temporary	FY84	6	FY85	5

Prepared 1/20/84
WR/

ANALYSIS OF PROJECTED EXPENDITURES

FROM AEIDC'S POINT OF VIEW

TO BE CONSIDERED IN THE WRITE-UP OF ANALYSIS BY DNR

TO ACCOMPANY FISCAL NOTE TO HB110

PAST EXPENDITURES

The State of Alaska increased its involvement in the Alaska Avalanche/Fire Weather Forecast System (AA/FWFS) in December 1982 by the inclusion of the University of Alaska. At that time the Climate Center at the Arctic Environmental Information and Data Center (AEIDC), University of Alaska, began providing technical services to AA/FWFS in the form of two full-time meteorologists and one part-time glaciologist for weather forecasting and snow pack assessment. State funds in the amount of 144.1 K were transferred by RSA from the Department of Public Safety to provide services until the end of June 1983. Monies were sufficient to provide the technical services and purchase equipment in the amount of $11.5 K. Some 50 K remained in the state funds to go toward salaries, etc. in the 1983 fire season which began April 15, 1983.

For the 1983 fire season, AEIDC was asked to provide 2 temporary weather forecasters and 2 meteorological technicians in Fairbanks, and 2 temporary meteorological technicians in Anchorage. The additional temporary employees were paid for almost entirely from federal funds. Cost of AEIDC's operation in support of the 1983 fire season was pretty well covered with some 50 K of state funds and federal funds for the remainder.

WINTER 83-84 EXPENDITURES

The 1983-84 avalanche season is much more costly for AEIDC than the previous year for the following reasons:

(1) AEIDC operated the avalanche forecasting center from October 1 instead of December 15 as in the previous year. 2.5 mo. of salaries, staff benefits, travel, etc. were involved.

(2) AEIDC increased the expertise in the avalanche forecasting program with a full-time snow specialist to provide snow pack information for the daily forecast bulletins, coordination with other cooperators, public awareness, and avalanche training.

(3) AEIDC was also involved in startup of the season with the purchase of spare parts and some new meteorological observing equipment, calibrating and distributing meteorological instruments, and the preparation of an observing guide, and a season operations plan.

(4) Personal Services costs increased in FY 84 due to pay raises and higher staff benefits costs.

Some additional funds from the U.S. Forest Service have been promised, but not enough to offset the additional costs to AEIDC this season. We expect to enter the 1984 fire season with about 30 K less than was available in 1983.

PROJECTED 85 COSTS

The FY 85 program requires additional costs for the following:

(1) Add one scientist position to provide backup for the two full-time meteorologists in winter; this position would also replace one of the temporary meteorologist positions in the summer and will assist in the snow pack evaluation during the avalanche season. The position would receive 4 mos funding from AEIDC;

(2) Add 4 months of additional secretarial, editing, graphics, and computer expertise to be applied to the writing efforts in completing work plans, reports on applied research and operating procedures;

(3) Add one additional contractual paid observer during the avalanche season;

(4) Add 10 K for the purchase of new meteorological observing equipment to expand data coverage;

(5) Less federal money is expected in future years as the BLM's area of responsibility for forest fire control decreases in Alaska.

Future FY projected figures allow for increased costs due to an estimated 5% inflationary factor and the purchase of new meteorological observing equipment.