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UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
P.O. Box 1628, Juneau, Alaska 99802

3210  
APR 16 1981



Honorable Samuel R. Cotten  
Alaska State House of Representatives  
Chairman, House Finance Committee  
Pouch V, State Capitol  
Juneau AK 99811

Dear Mr. Cotten:

The enclosed material provides background information regarding two appropriation bills which have been introduced for continued development and operation of the Alaska Avalanche Warning System. These are H.B. No. 18 and H.B. No. 348, which have been referred to your Committee.

The State of Alaska is participating in this public service which was implemented last year. The extent of next winter's operation will be largely influenced by action the State takes during this Session.

We hope that a hearing for these two bills can be scheduled at an early date. Mr. Bob Janes, Deputy Director for State and Private Forestry from my staff, should be available to answer any questions during the hearing. If possible, please advise Mr. Janes by phone, 536-7510, of the time and place as soon as it is determined.

Sincerely,

*Michael A. Barton*  
MICHAEL A. BARTON  
Deputy Regional Forester

cc: Representative Mike Miller, Sponsor  
Jos Mapranaph, Finance Officer,  
Department of Public Safety  
Members, House Finance Committee

5/27/81 NOTE:

THESE TWO BILLS PASSED THE HOUSE FLOOR MAY 26, 1981 AND WERE REFERRED TO (1) SENATE STATE AFFAIRS, AND (2) SENATE FINANCE COMMITTEES. THIS BACKGROUND MATERIAL IS THEREFORE BEING FURNISHED AT THIS TIME TO ALL MEMBERS OF THOSE TWO SENATE COMMITTEES.

*R.C. Janes*  
R.C. Janes  
U.S. Forest Service

ALASKA AVALANCHE WARNING SYSTEM AND FIRE WEATHER FORECASTING SERVICE (AAWS/FWFS)

The enabling legislation for State participation in this project was enacted in the last Session of the Legislature. A copy of the Act is enclosed, AS 18, Chapter 76, Alaska Avalanche Warning System, which became effective July 1, 1980. Two supplemental Appropriation Bills for F.Y. 82 have been introduced in the First Session of the Twelfth Legislature to assist in development and operation of the program. For F.Y. 83, the regular program budgeting process will be used by the Department of Public Safety, representing all State interests for continuation of the program.

1. House Bill No. 18 (\$130,000). This is for a capital investment need, development of two orographic precipitation models for use in mountain weather forecasting. The enclosed testimony of 2/12/81 before the House State Affairs Committee provides further details.

2. House Bill No. 348 (\$446,000). This is primarily for operation and maintenance of the system. The following table shows direct funding needed for, and in-kind dollar value given to, the system for the period 7/1/81 - 6/30/82. Amounts shown are based on an evaluation of both tangible and intangible benefits to the cooperating agency indicated. The general concept is that all cooperators will benefit through more effective management of their individual program responsibilities. At the same time, they will be contributing to the health and welfare of Alaska residents and visitors to the State.

Following the table, a specific narrative statement of purpose and benefit is shown for each participating State cooperator. These are within the three Departments of Public Safety, Natural Resources, and Transportation and Public Facilities.

Cooperating Agency	Direct Funding Needed		Estimated In-Kind \$ Value		Total Project	
	Thousand \$	%	Thousand \$	%	Thousand \$	%
<b>A. State</b>						
1. DPS	\$446(93)		\$3	1		
2. DNR-Parks	(195)		50	17		
3. DNR-Geol Survey	(40)		5	2		
4. DNR-Forest, Land, and Water Mgt.	(20)		10	3		
5. DOT&PF	(98)		16	5		
Sub total	\$446	76%	\$84	28%	\$530	60%
<b>B. Federal</b>						
6. Forest Service	70		30	10		
7. BLM	66		140*	47		
8. Weather Service			35**	11		
9. Soil Cons. Serv.			9	3		
<b>C. Municipal</b>						
10. City & Borough Juneau	5		3	1		
Sub total	\$141	24%	\$217	72%	\$358	40%
Total cost	\$587		\$301		\$888	

Note: Figures in parentheses for State agencies represent dollar benefit to the cooperator.

\*Includes salary, supplies, communications and the maintenance and mortgaging of the special capital improvements (equipment) needed for developing a fire-weather forecast not being furnished by the National Weather Service.

\*\* Includes salary, office supplies, office space and other services but not the cost to the National Weather Service for gathering the weather data and producing the weather forecast products needed for making weather forecasts.

1. Department of Public Safety (\$93,000). This Department represents all State interests in the program and acts as the central office for the \$446,000 "pass through" appropriation to the Alaska Avalanche and Fire Weather Forecast System administered by the U.S. Forest Service as outlined in the Master Agreement between all participating cooperators.

The Department will benefit primarily from an expected decrease in accidents caused by snow avalanches and fire. This should result in less impact and demand to State Troopers for emergency search and rescue missions, and a decrease in expenditures for such work. The basic objective of the combined system of avalanche warning and fire weather forecasting is to reduce loss of lives, property, and public expenditures.

2. Department of Natural Resources (\$255,000). Three Divisions are cooperating in the program:

a. Division of Parks (\$195,000). Thousands of Alaska residents and visitors use State Parks for winter recreation such as back country ski touring, snow-machining, and mountain climbing. These people will benefit from the service being offered by the Avalanche-Fireweather Forecasting Center by planning trips to avoid natural dangers as they develop. On the Chugach State Park alone last year, there were 153,000 winter visitor days. The increasing risks caused by increasing use results in a greater potential for an increase in accidents. The snow avalanche hazards and conditions that exist in Alaska have resulted in a high number of fatalities during the decade of the 1970's. The combination of the permanent ice and snow fields in the mountainous terrain of Alaska, with a heavy snowfall during the winter, creates the potential for yearlong avalanche danger.

During the period 1970-78 there were 109 deaths from snow avalanches in the United States. Of these, 23, or more than 20% of the total, occurred in Alaska. During the same period, the State of Colorado had 24, and Washington had 21 fatalities. Mr. Doug Fesler, Statewide Snow Ranger, Division of Parks, has studied the Alaska incidents for that particular period and he has concluded: (1) there were 16 avalanches that caused the 23 fatalities, and he estimates that for every fatality there have been 10 other people caught in an avalanche, but survived; (2) most avalanche deaths were in January (25%), followed by February (19%) and December and May (13% each); (3) regionally in Alaska, 56% occurred in Southcentral, 25% in Interior, and 19% in Southeast; (4) most deaths were associated with recreational activities which included skiing, hiking, and climbing.

Sec. 18.76.010 (3) of Chapter 76 pertaining to the Alaska Avalanche Warning System specifies "coordinate a public awareness program on avalanche danger." To do this, the State Division of Parks has been assigned responsibility for developing and operating an effective Statewide Snow Avalanche Education Program under the direction of the Alaska Avalanche and Fireweather Forecasting System.

To assist in carrying out the program for the 1981-82 winter season, \$77,600 of the State's appropriation in the AA/FWFS operating program will be transferred to the State Division of Parks. This amount is part of the \$195,000 benefiting State Parks.

b. Division of Geological and Geophysical Surveys (\$40,000). AS 41.08.020 and 6AAC 80.050 place prime responsibility for identifying and evaluating geological hazards in Alaska with the State Geologist. The Alaska Avalanche Warning System will help in this respect, by increasing the level of knowledge gained through additional technical personnel working on the program and by gathering basic weather and snow data in high mountain terrain. Two specific provisions of the Act relating to the warning system are (4) and (5) which affect the work of this Division. Sec. 18.76.010 (4) states "catalog a comprehensive atlas of avalanche paths and slide occurrences," and (5) states "assist local governments and state agencies in identifying hazardous avalanche zones and in developing snow avalanche zoning regulations."

c. Division of Forest, Land, and Water Management (\$20,000). A combined part of the Alaska Avalanche Warning System is operation of a Statewide Fire Weather Forecasting Service during the summer. This enables a forecasting center to operate in Anchorage to handle both the avalanche and fireweather forecasts on a yearlong basis. It will result in experienced, dedicated personnel operating in this specialty field. The State Forester is participating in the program and utilizing the fireweather forecasting aspects of it.

The U.S. Bureau of Land Management has been transferring wildland fire control responsibility to the State, and by 1985 the State Forester's organization is expected to have the capability to be protecting the natural resources on 75 million acres of State and private lands against losses due to fire. Fireweather forecasting is an important management tool used for decisionmaking in fire prevention, presuppression, and suppression activity. Reliable fireweather forecasts can save not only life and property, but thousands of dollars each year in fire management practices.

3. Department of Transportation and Public Facilities (\$98,000). There are approximately 180 preliminarily identified avalanche paths crossing public highways and railroads within the State. This situation presents a constant hidden danger to the limited land transportation corridors, and since there are no alternate roads to use, the public is continually exposed to these avalanche prone routes during the winter months.

The warning and forecasting service will not only help to protect the public against these dangers, it will also enable the Department to make more effective management decisions for conducting actual avalanche control operations, closing highways to public use, etc. This should result in safer and more effective results, and there should be a substantial dollar savings from managing operations that would reduce the amount of overtime needed for emergency situations.



# LAWS OF ALASKA

1980

Source  
HCS CSSR 01

Chapter No.

119

## AN ACT

Relating to avalanche warning and control systems; and  
providing for an effective date.

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

THE ACT FOLLOWS ON PAGE 1, LINE 9

Approved by the Governor: June 30, 1980  
Actual Effective Date: July 1, 1980

AN ACT

Relating to avalanche warning and control systems;  
and providing for an effective date.

\* Section 1. AS 18 is amended by adding a new chapter to read:

CHAPTER 76. ALASKA AVALANCHE WARNING SYSTEM.

Sec. 18.76.010. PARTICIPATION IN STATEWIDE AVALANCHE WARNING

SYSTEM. The Department of Public Safety, acting in cooperation with a municipality or with an agency of the federal government, shall participate in the development and implementation of a statewide avalanche warning system and shall represent the state in the operation of that system. The statewide system shall

(1) establish and maintain a service center and primary and supplementary field stations to gather information and data concerning ground weather conditions, snow pack, and avalanche activity;

(2) forecast snow avalanche conditions throughout the state;

(3) coordinate a public awareness program on avalanche danger;

(4) catalog a comprehensive atlas of avalanche paths and slide occurrences; and

(5) assist local governments and state agencies in identifying hazardous avalanche zones and in developing snow avalanche zoning regulations.

\* Sec. 2. AS 19.05.030 is amended by adding a new paragraph to read:

(7) develop and implement an avalanche control plan to protect persons who use public highways.

\* Sec. 3. This Act takes effect immediately in accordance with AS 01.10.-

070(c).

Funding Information  
General Fund \$446,000  
Other Funds -0-  
\$446,000

Introduced: 3/17/81  
Referred: Finance

1 IN THE HOUSE

BY MILLER

2 HOUSE BILL NO. 348

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 TWELFTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act making a special appropriation to the Depart-  
7 ment of Public Safety for the Alaska avalanche warning  
8 system; and providing for an effective date."

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

10 \* Section 1. The sum of \$446,000 is appropriated from the general fund  
11 to the Department of Public Safety for the Alaska avalanche warning system.

12 \* Sec. 2. The unexpended and unobligated portion of the appropriation  
13 made by this Act lapses into the general fund June 30, 1982.

14 \* Sec. 3. This Act takes effect immediately in accordance with AS 01.10.-  
15 070(c).

16 CC: EDA, S&PF

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Funding Information  
General Fund \$130,000  
Other Funds -0-  
\$130,000

1 IN THE HOUSE

BY MILLER

2 HOUSE BILL NO. 18

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 TWELFTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act making a supplemental appropriation to the  
7 Department of Public Safety for implementation of the  
8 statewide avalanche warning system; and providing for  
9 an effective date."

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

11 \* Section 1. The sum of \$130,000 is appropriated from the general fund  
12 to the Department of Public Safety for contract services to prepare  
13 orographic precipitation models of Southeastern and Southcentral Alaska for  
14 use in the statewide avalanche warning system (AS 18.76.010):

15 \* Sec. 2. The unexpended and unobligated portion of the appropriation  
16 made by this Act lapses into the general fund June 30, 1982.

17 \* Sec. 3. This Act takes effect immediately in accordance with AS 01.10.-  
18 070(c).

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MR. CHAIRMAN AND MEMBERS OF THE HOUSE FINANCE COMMITTEE:

MY NAME IS BOB JANES, AND I AM REPRESENTING THE U.S. FOREST SERVICE TODAY IN SUPPORT OF TWO APPROPRIATION BILLS FOR THE ALASKA AVALANCHE WARNING SYSTEM AND FIRE WEATHER FORECASTING SERVICE. THESE TWO BILLS ARE H.B. NO. 18 IN THE AMOUNT OF \$130,000 AND H.B. NO. 348 IN THE AMOUNT OF \$446,000.

HOUSE BILL NO. 18 IS FOR A CAPITAL INVESTMENT NEED. IT WOULD ENABLE PROCEEDING WITH THE PLANNED DEVELOPMENT AND OPERATION OF THE STATEWIDE SYSTEM WHICH WAS AUTHORIZED BY THE LAST SESSION OF THE LEGISLATURE AND SIGNED INTO LAW JULY 1, 1980, AS CHAPTER 76 AMENDING AS 18.

TWO COMPUTERIZED OROGRAPHIC PRECIPITATION MODELS WOULD BE DEVELOPED FOR USE IN MOUNTAIN WEATHER FORECASTING. BASICALLY, THEY WOULD DETERMINE THE EFFECTS OF TOPOGRAPHY ON WINTER PRECIPITATION FOR SPECIFIED GEOGRAPHIC AREAS. THE OBJECTIVE IS TO PROVIDE A FAST, SIMPLE, AND ACCURATE TECHNIQUE TO FORECAST THE WATER EQUIVALENT OF THE NEW SNOWFALL FOR THE MOUNTAINOUS ZONES WHERE AVALANCHES START. SINCE LOADING OF THE AVALANCHE STARTING ZONES IS THE PRIMARY TRIGGER FOR NATURAL AVALANCHES, THE SNOWFALL FORECAST WITH WATER EQUIVALENT IS VITAL TO ACCURATE FORECASTING.

ONE MODEL WILL BE FOR SOUTHCENTRAL ALASKA AND ONE WILL BE FOR SOUTHEAST ALASKA, COVERING MAJOR AREAS OF OCCUPANCY AND USE WHERE DANGEROUS AVALANCHE CONDITIONS EXIST. THE SOUTHCENTRAL MODEL WILL COVER NEARLY 90,000 SQUARE MILES ON A GRID 260 MILES BY 335 MILES STRETCHING FROM NEAR THE CANADIAN BORDER OF THE YUKON TERRITORY ON THE EAST, THEN WESTERLY TO THE KENAI

PENINSULA, AND NORTHERLY TO MT. MCKINLEY NATIONAL PARK. IT ENCOMPASSES THE CITY OF ANCHORAGE, WITH OVER 200,000 POPULATION, AND SMALLER COMMUNITIES OF GLENNALLEN, VALDEZ, CORDOVA, KENAI, HOMER, AND SEWARD; FOUR MOUNTAIN RANGES ARE INVOLVED, THE CHUGACH MOUNTAINS, OR BACKYARD PLAYGROUND OF ANCHORAGE, AND THE WRANGELLS, TALKEETNA, AND KENAI RANGES.

THE SOUTHEAST MODEL WILL COVER A GRID AREA OF ABOUT 150 MILES WIDE AND 300 MILES LONG, APPROXIMATELY 45,000 SQUARE MILES. IT STRETCHES FROM NEAR THE CANADIAN BORDER OF BRITISH COLUMBIA TO THE SOUTH, AND NORTHERLY TO THE CANADIAN YUKON TERRITORY BORDER. IT CONTAINS THE MASSIVE COAST MOUNTAIN RANGE SURROUNDING THE CITY OF JUNEAU, AND SMALLER CITIES OF KETCHIKAN, WRANGELL, PETERSBURG, HAINES, AND SKAGWAY; TO THE WEST, THE CITY OF SITKA LIES WITHIN THE GRID, AND SEVERAL TLINGIT-HAIDA NATIVE VILLAGES ARE INCLUDED IN THE MOUNTAINOUS ISLANDS.

THE PRODUCT WILL NOT BE A PROTOTYPE. THE BIDDER MUST SHOW THAT SIMILAR MODELS FOR OTHER GEOGRAPHIC AREAS MUST HAVE BEEN IN SUCCESSFUL OPERATION FOR THREE OR MORE YEARS. THOSE EXAMPLES AND THEIR OUTPUTS MUST BE SUBMITTED WITH THE BID AS AN INDICATION OF PERFORMANCE, INCLUDING A COMPARISON OF MODEL FORECASTS AND ACTUAL OBSERVED VALUES FOR BOTH SHORT TERM (1-24 HOUR) FORECASTS AND FOR THE SEASONAL ACCUMULATION.

THESE TWO MODELS ARE A HIGH PRIORITY CAPITAL INVESTMENT NEED FOR THE OVERALL SYSTEM.

THE SECOND APPROPRIATION BILL, H.B. NO. 348, IS FOR OPERATION OF THE ALASKA AVALANCHE AND FIREWEATHER FORECAST SYSTEM FOR THE PERIOD JULY 1, 1981 THROUGH JUNE 30, 1982. THE STATE APPROPRIATION OF \$446,000 SUPPLEMENTS \$141,000 OF OTHER FEDERAL AND MUNICIPAL FUNDS, AND AMOUNTS TO 76% OF THE TOTAL \$587,000 DIRECT FUNDING NEEDED FOR THE PROJECT.

THERE WILL BE AN ESTIMATED ADDITIONAL \$301,000\* OF CONTRIBUTED DOLLAR VALUE FROM COOPERATORS WHO FURNISH PERSONNEL, OFFICE SPACE, EQUIPMENT, SUPPLIES, ETC. FOR BOTH THE STATEWIDE AVALANCHE AND FIREWEATHER FORECAST PROGRAM. OF THIS, THE STATE'S PROPORTION IS \$84,000 OR 28%. THE TOTAL ESTIMATED ANNUAL OPERATING COST IS \$888,000 WHICH IS FINANCED 60% BY THE STATE AND 40% BY OTHER AGENCIES. THREE STATE DEPARTMENTS ARE INVOLVED, WITH PUBLIC SAFETY REPRESENTING THE STATE IN OPERATION OF THE SYSTEM. THE OTHER TWO DEPARTMENTS ARE NATURAL RESOURCES AND TRANSPORTATION AND PUBLIC FACILITIES, EACH WITH VESTED INTERESTS IN THE PROGRAM. WITHIN THE DEPARTMENT OF NATURAL RESOURCES, THERE ARE THREE DIVISIONS PARTICIPATING IN THE PROGRAM: (1) PARKS, (2) GEOLOGICAL AND GEOPHYSICAL SURVEYS, AND (3) FOREST, LAND, AND WATER MANAGEMENT.

THE ENCLOSED PROPOSED OPERATING BUDGET FOR THE PERIOD JULY 1, 1981 THROUGH JUNE 30, 1982, AND THE DETAILED SPREADSHEET OF COOPERATING AGENCY PARTICIPATION AND BENEFITS, SHOW FURTHER EXPLANATION OF WHAT IS INVOLVED IN THIS REQUEST.

IT IS IMPORTANT TO NOTE THAT THE AVALANCHE AND FIREWEATHER FORECASTING SYSTEM WILL BE A CONTINUING PROJECT, HAVING STARTED APRIL 1, 1980. IT IS PROGRAMMED FOR GROWTH AND DEVELOPMENT WHICH WILL PRODUCE A FULL-SCOPE INTENSIVE OPERATION BY THE WINTER OF 1985. BY THAT TIME, THE STATE MAY DESIRE TO ASSUME THE LEAD ROLE FROM THE USDA-FOREST SERVICE IN OPERATION AND ADMINISTRATION, WITH THE OTHER FEDERAL AND MUNICIPAL COOPERATORS CONTINUING THEIR SUPPORT.

ADDITIONAL NEW COOPERATORS MAY PARTICIPATE AT ANY TIME. THE LEVEL OF STATE FUNDING IS EXPECTED TO REMAIN AT ABOUT 75%, WITH AN ANNUAL OUTLAY OF APPROXIMATELY \$450,000, PLUS AN APPROPRIATE INCREASE FOR INFLATION. ADDITIONAL CAPITAL EXPENSE NEEDS ARE EXPECTED TO NOT EXCEED \$50,000 PER YEAR.

I APPRECIATE YOUR TIME, AND WILL BE GLAD TO ANSWER ANY QUESTIONS ABOUT THE OVERALL PROJECT.

\*Does not include the cost to the National Weather Service for gathering and producing the weather products needed for a weather forecast.

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*Presented by Robert C. Janes, Deputy Director for State and Private Forestry, USDA Forest Service, Alaska Region, at a Hearing on \_\_\_\_\_ before the House Finance Committee.*

PROPOSED BUDGET

ALASKA AVALANCHE WARNING SYSTEM & FIRE WEATHER FORECASTING SERVICE

(For Period 7/1/81 through 6/30/82)

I. <u>PERSONNEL</u>				<u>Cost to Nearest \$100</u>	
				<u>Avalanche</u>	<u>Fire</u>
Program Director	150 days x \$165/day			\$21,500	\$3,300
Meteorologist	260 " " "			25,600	17,400
Meteorologist	260 " " 140/day			19,900	16,600
Meteorologist (Fire)	116 " " 110/day			0	13,000
Met. Tech. (Hackett)	10 " " 100/day			1,000	
Met. Tech. (Fire)	116 " " 85/day			0	10,000
Met. Tech. (Fire)	116 " " 85/day			0	10,000
Met. Tech. (Valdez)	180 " " 100/day			18,000	
Met. Tech. (Valdez)	180 " " 90/day			16,200	
Met. Tech. (Juneau)	180 " " 85/day			15,300	
Met. Tech. (Juneau)	180 " " 85/day			15,300	
Met. Tech. (Anchorage)	240 " " 100/day			24,000	
Met. Tech. (Kenai) (60% AAWS; 40% CNF)	180 " " 85/day			9,200	
Clerk (AAFC)	180 " " 55/day			9,900	
	Sub total Salary			\$175,900	\$70,300

II. TRAVEL

A. Per Diem and Commercial Travel

Program Director and Meteorologists	8,000	11,700
Met. Techs. (Fire)		2,000
Met. Techs. (Valdez)	4,500	
Met. Tech. (Juneau)	4,500	

Met. Tech. (Anchorage)	5,000		
Met. Tech. (Kenai)	<u>1,000</u>		
Sub total Travel	\$23,000		\$13,700

B. Vehicle Rental

AA/FWFC GSA vehicles 15 months X \$165/mo	\$2,500		
20,000 miles @ 0.40/mi	<u>7,700</u>	5,200	\$5,000
Juneau Met. Tech. vehicle (GSA)			
12 months x \$188/mo	2,256		
4,000 miles @ 0.434	<u>1,736</u>	4,000	
Anchorage Met Tech vehicle (GSA)			
12 months x 188/mo	\$2,256		
20,000 miles @ 0.434	<u>3,680</u>	\$10,900	
Valdez Met. Tech. (State DOT&PF furnished)		0	
Kenai Met. Tech. (vehicle-Chugach NF furnished)		<u>0</u>	
Sub-total Vehicles	\$20,100		\$5,000

C. Aircraft Charter - Helicopter and Fixed-wing

Anchorage Area:	Hatcher Pass	\$5,000	
	Chugach State Park	5,000	
	Kenai	<u>5,000</u>	15,000
Valdez Area:	(State DOT&PF furnished)		0
Juneau Area			<u>8,000</u>
Sub-total Aircraft		\$23,000	

III. SUPPLIES AND EQUIPMENT

Safety Equipment	\$9,000		
Weather Equipment	16,000		
Misc. Items	<u>5,000</u>		\$5,000
Sub-total E&S	\$30,000		\$5,000

IV. SERVICES

Radio Maintenance	\$4,000	
Remote Instrumentation Maint.	2,000	
GOES Platform	3,500	
Telephone	<u>8,000</u>	<u>3,000</u>
Sub-total Services	\$17,500	\$3,000

V. CONTRACTING

Weather Observations - Hatcher Pass	\$12,000	
" " Summit Lake	2,000	
" " Mile 14 (Valdez)	2,000	
" " Salmon Cr. Res.	2,000	
" " 3 undesig. sites	<u>6,000</u>	
		\$24,000

VI. SNOW AVALANCHE EDUCATION PROGRAM

To be transferred to State Division of Parks:

Contractual Services		\$20,000
Supplies and Equipment		5,000
Transportation	Per Diem & Comm Travel	\$6,000
	Vehicle	<u>6,000</u>
		12,000
Park Ranger III (new position)		<u>40,600</u>
(Avalanche Information Specialist)		
Sub-total		\$77,600

VII. CAPITAL INVESTMENT

Bird Ridge Cabin - for use with DOT&PF avalanche control program - Seward Highway and local forecasting		
Sub-total		<u>\$25,000</u>

VIII. SUMMARY OF COSTS

	<u>Avalanche</u>	<u>Fire</u>	<u>Total</u>
Operation	\$391,100	\$94,000	\$485,100
Capital Investment	25,000	0	25,000
Contingency	18,000	6,100	24,100
General Admin. Asses. (9%)	<u>45,100</u>	<u>7,700</u>	<u>52,800</u>
Total Project Cost	\$479,200	\$107,800	\$587,000

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

POSITION PAPER

HOUSE BILL NO. 348 (efd failed)

"An Act making a special appropriation to the Department of Public Safety for the Alaska avalanche warning system; and providing for an effective date."

HB No. 348 provides \$446,000 to the Department of Public Safety for the Alaska avalanche warning system.

The Department of Health and Social Services believes that an avalanche warning and control system is necessary to reduce the risk of avalanche which occasionally results in serious injuries or death.

Mr. Doug Fessler of the Alaska State Parks recently completed a study of avalanche fatalities which occurred between 1970 and 1979. Based on this study, the following facts were gathered:

- 1) There were 17 fatal avalanches involving 24 fatalities. It was estimated that for every fatality there have been 10 others who were caught in an avalanche, but survived.
- 2) Most avalanche deaths were in January (29%), followed by May (17%), and February and August (13% each).
- 3) Regionally, 33% occurred in the Interior, 54% occurred in Southcentral, and 13% occurred in Southeast.
- 4) Most deaths were associated with recreational activities including skiing, hiking, and climbing.

The Department of Health and Social Services supports the concept of this bill.

Recommended by: David C. Bruce  
David Bruce, Deputy Director  
Division of Public Health

Date: March 23, 1981

Approved by: Helen D. Beirne  
Helen D. Beirne, Commissioner

Date: 3-26-81

Cloria Houston Way  
Emergency Medical Services

**THE LEGISLATURE OF THE STATE OF ALASKA  
TWELFTH LEGISLATURE**

**FISCAL NOTE**

**I. REQUEST**

Bill/Resolution No. House Bill No. 348 (efd failed)  
 Title "An Act making a special appropriation to the Dept. of Public Safety for avalanche.  
 Requested by Commissioner's Office Date 3/20/81

**II. FISCAL DETAIL**

Agency Affected Dept. of Health and Social Services  
 Program Category Affected Public Health  
 BRU, Program, or Subprogram(s) Affected \_\_\_\_\_  
 (Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

**EXPENDITURES** (Thousands of Dollars)

	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86
100 PERSONAL SERVICES	0	0	0	0	0	0
200 TRAVEL	0	0	0	0	0	0
300 CONTRACTUAL	0	0	0	0	0	0
400 COMMODITIES	0	0	0	0	0	0
500 EQUIPMENT	0	0	0	0	0	0
600 LAND & STRUCTURES	0	0	0	0	0	0
700 GRANTS, CLAIMS, ETC.	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**FUNDING** (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER (Specify Fund Source)	0	0	0	0	0	0

**POSITIONS**

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

**III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)**

IV. DATE 3/20/81 PREPARED BY Mark Johnson  
 AGENCY Dept. of Health & Social Services  
 PHONE 465-3027  
 Original: Legislative Finance  
 cc: Budget and Management  
 Prime Sponsor (First Legislator Named) M&B Approval *M. Johnson* Date 3/25/81

THE LEGISLATURE OF THE STATE OF ALASKA  
TWELFTH LEGISLATURE

*RJL*  
*4/8/81*

FISCAL NOTE

I. REQUEST  
Bill/Resolution No. HB 348  
Title "An Act making special appropriation to Public Safety for the Avalanche Warning System"  
Requested by \_\_\_\_\_ Date \_\_\_\_\_

II. FISCAL DETAIL  
Agency Affected Department of Public Safety  
Program Category Affected Administration of Justice  
BRU, Program, or Subprogram(s) Affected Detachments & CIB  
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86
100 PERSONAL SERVICES			43.8	47.3	51.1	55.2
200 TRAVEL			6.5	7.0	7.6	8.2
300 CONTRACTUAL			399.0	430.9	465.4	502.6
400 COMMODITIES			2.2	2.4	2.6	2.8
500 EQUIPMENT						2.0
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL			451.5	487.6	526.7	570.8

FUNDING (Thousands of Dollars)

	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86
GENERAL FUND			451.5	487.6	526.7	570.8
FEDERAL FUNDS						
OTHER (Specify Fund Source)						

POSITIONS

	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86
FULL TIME		1	1	1	1	1
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)  
To implement the Alaska Avalanche Warning System, the U.S. Forest Service, as coordinator of the program, has prepared an operating budget totalling \$586,750 for FY 82. The funding participants of the program are the State of Alaska, U.S. Bureau of Land Management, U.S. Forest Service and the City and Borough of Juneau. The State's share is 76% or \$446,000. The subject bill appropriates the State's portion to the Department of Public Safety. The State participants are Department of Natural Resources, Department of Transportation and Public Facilities, and Department of Public Safety. The budget contains \$25,000 of a "capital" nature, namely "construct a weather observation station and overnight facility at Bird Ridge." The major capital expenditure has been covered under HB 18 as a supplemental appropriation for use beginning FY 81.

- continued

IV. DATE April 8, 1981 PREPARED BY *MJM* Marcia Lynn McKenzie, Budget Analyst  
AGENCY Department of Public Safety  
PHONE 465-4349  
Original: Legislative Finance  
cc: Budget and Management  
Prime Sponsor (First Legislator Named)

For FY 82, the operating portion of the appropriation, \$421.0 will be expended in two major segments, approximately \$343.4 towards a cooperative contractual agreement and \$77.6 for an information and education program to be run by the Department of Natural Resources, including the establishment of a Park Ranger III position (range 18). For FY 83 through FY 86, an annual inflation factor of 8% is applied to the total operating budget, with an allowance for replacement equipment in FY 86.

POSITION PAPER  
HOUSE BILL NO. 18  
"An Act making a supplemental appropriation to the Department of Public Safety for implementation of the statewide avalanche warning system, and providing for an effective date."  
HE No. 18 provides \$130,000 for preparation of orographic precipitation models of Southeastern and Southcentral Alaska to be used as part of the statewide avalanche warning system.  
The Department does believe that an avalanche warning and control system is necessary to reduce the risk of avalanche which occasionally results in serious injuries or deaths.  
The Department of Health and Social Services supports the concept of this bill.

POSITION PAPER

HOUSE BILL NO. 18

"An Act making a supplemental appropriation to the Department of Public Safety for implementation of the statewide avalanche warning system, and providing for an effective date."

HE No. 18 provides \$130,000 for preparation of orographic precipitation models of Southeastern and Southcentral Alaska to be used as part of the statewide avalanche warning system.

The Department does believe that an avalanche warning and control system is necessary to reduce the risk of avalanche which occasionally results in serious injuries or deaths.

The Department of Health and Social Services supports the concept of this bill.

Recommended by: David Bruce  
David Bruce, Deputy Director  
Division of Public Health

Date: February 2, 1981

Approved by: H. D. Beirne  
Heferi D. Beirne  
Commissioner

Date: 2/5/81

**FISCAL DETAIL**

Agency Affected Department of Health & Social Services  
 Program Category Affected Health/Division of Public Health  
 BRU, Program, or Subprogram(s) Affected Emergency Medical Services

(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

**EXPENDITURES** (Thousands of Dollars)

	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
100 PERSONAL SERVICES	0	0	0	0	0	0
200 TRAVEL	0	0	0	0	0	0
300 CONTRACTUAL	0	0	0	0	0	0
400 COMMODITIES	0	0	0	0	0	0
500 EQUIPMENT	0	0	0	0	0	0
600 LAND & STRUCTURES	0	0	0	0	0	0
700 GRANTS, CLAIMS, ETC.	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**FUNDING** (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER (Specify Fund Source)	0	0	0	0	0	0

**POSITIONS**

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

**III. ANALYSIS** (See Fiscal Note Preparation Instructions, Section IID)

IV. DATE 01/22/81 PREPARED BY Mark S. Johnson  
 AGENCY Emergency Medical Services/Div. Public Health  
 PHONE 465-3027  
 Original: Legislative Finance  
 cc: Budget and Management  
 Prime Sponsor (First Legislator Named) W. H. ... 1/22/81

FISCAL NOTE

I. REQUEST  
 Bill/Resolution No. HB 18  
 Title "An Act making supplemental appropriation to Public Safety for Avalanche Warning."  
 Requested by Mike Miller Date \_\_\_\_\_

II. FISCAL DETAIL  
 Agency Affected Department of Public Safety  
 Program Category Affected Administration of Justice  
 BRU, Program, or Subprogram(s) Affected Administration and Support  
 (Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)  
EXPENDITURES (Thousands of Dollars)

	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86
100 PERSONAL SERVICES		6.2	6.8	7.1	7.6	8.2
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL		6.2	6.8	7.1	7.6	8.2

FUNDING (Thousands of Dollars)

GENERAL FUND		6.2	6.8	7.1	7.6	8.2
FEDERAL FUNDS						
OTHER (Specify Fund Source)						

POSITIONS

FULL TIME						
PART TIME		1.0	1.0	1.0	1.0	1.0
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instructions, Section III)

Monitoring and administering the contract with the U.S. Forest Service for on-going operating costs would require the part-time services of an Accounting Clerk II (approximately 3 months). An inflation factor of 7% is included for subsequent years.

Please see attached

IV. DATE January 29, 1981 PREPARED BY Jos Manranath, Finance Officer  
 AGENCY Public Safety  
 PHONE 465-4349  
 Original: Legislative Finance  
 cc: Budget and Management  
 Prime Sponsor (First Legislator Named)