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SRES

SB

344

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SB

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SB

344



Official Business

Alaska State Legislature

Senate

Committee on Resources

February 18, 1980

Pouch V
State Capitol
Juneau, Alaska 99811

TO: Resources Committee Members
FROM: Jens Zehbe, Staff Member
REGARDING: Senate Bill 344

This bill would allow for the issuance of \$4,218,800 in general obligation bonds after the approval of the voters of the state. The money would go to the Department of Public Safety for the purchase of (1) 120-foot patrol boat, based at Kodiak to serve the Kodiak/Dutch Harbor areas. If approved, delivery of the vessel is expected sometime in September 1981. This vessel would give Public Safety a second enforcement vessel operating in the crab fishery in the Kodiak/Dutch Harbor areas.

See attached fiscal note and Department of Public Safety informational letter.

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF ADMINISTRATIVE SERVICES

POUCH N - JUNEAU 99811

February 4, 1980

The Honorable Bill Summer
Senator, Alaska State Senate
Pouch V
Juneau, Alaska 99811

Subject: Senate Bill 344

Dear Senator Summer:

The 120 foot patrol vessel referenced in Senate Bill 344 will be stationed in Kodiak to serve the Kodiak/Dutch Harbor areas. If the bond package is approved by the Legislature and the voters, we anticipate receipt of the vessel some time in September, 1981.

The priority enforcement project for this vessel will be in the crab fishery in the Kodiak/Dutch Harbor areas. The Alaska Department of Fish and Game and our Division of Fish and Wildlife Protection conservatively estimate that between 8,000 and 20,000 unmarked and unclaimed illegal pots fish the gulf and Bering Sea year-round. The toll these pots have on the resource is really unknown, and until now we have not had the ability to calculate, with any reasonable degree of success, what that toll is. We feel we will be able to do this with the new boat because it will be capable of carrying approximately 175 crab pots. This will give us two enforcement vessels operating in the Kodiak area, and coverage of the fisheries should increase substantially.

We feel that the primary purpose of the Division of Fish and Wildlife Protection is to provide the enforcement necessary to ensure the successful completion of Fish and Game's management plans. In the Kodiak area, as an example, we have been unable to provide the necessary level of enforcement due to a lack of adequate vessels to patrol the waters in and around Kodiak and Dutch Harbor. Upon receipt of this boat there is still no guarantee that all fishing violations or crabbing violations will be detected. However, the degree at which violations occur should be reduced substantially due to the fact that there are now more vessels operating in the area. As indicated above, the primary objective of this new vessel will be in the crab fishery but it will also be doing work in the salmon, shrimp and bottomfish fisheries as well. In addition, the vessel will play a large role in search and rescue missions that we conduct along the Chain.

Introduced: 1/18/80
Referred: Resources and
Finance

1 IN THE SENATE

BY THE RULES COMMITTEE BY
REQUEST OF THE GOVERNOR

2 SENATE BILL NO. 344

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 ELEVENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act providing for the issuance of general obliga-
7 tion bonds in the amount of \$4,218,800 for the purpose
8 of paying the cost of capital improvements for fish-
9 eries resources protection facilities; and providing
10 for an effective date."

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

12 * Section 1. For the purpose of paying the cost of capital improvements
13 for fisheries resources protection and enhancement facilities, general ob-
14 ligation bonds of the state in the principal amount of not more than
15 \$4,218,800 shall be issued and sold. The full faith, credit, and resources
16 of the state are pledged to the payment of the principal of and interest
17 and redemption premium, if any, on these bonds. These bonds shall be issued
18 under the provision of AS 37.15 as those provisions read at the time of is-
19 suance.

20 * Sec. 2. (a) If the issuance of these bonds is authorized by the
21 qualified voters of the state, a special fund of the state to be known as
22 the "1980 Fisheries Resources ^{Facilities} Construction Fund" shall be estab-
23 lished, to which shall be credited the proceeds of the sale of bonds
24 described in sec. 1 of this Act except for accrued interest and premiums.

25 (b) There is appropriated from the "1980 Fisheries Resources Facil-
26 ities Construction Fund" to the Department of Public Safety the amount of
27 \$4,218,800, for the purchase of one 120-foot patrol vessel to be based at
28 Kodiak.

29 * Sec. 3. If the issuance of these bonds is authorized by the qualified

1 voters of the state, the amount of \$14,800 or as much of that amount as is
2 found necessary is appropriated from the general fund of the state to the
3 state bond committee to carry out the provisions of this Act and to pay
4 expenses incident to the sale and issuance of the bonds authorized in this
5 Act. The amounts expended from the appropriation authorized by this
6 section shall be reimbursed to the general fund from the proceeds of the
7 sale of the bonds authorized by this Act.

8 * Sec. 4. The amount withdrawn from the public facility planning fund
9 for the purpose of advance planning for the improvements financed under
10 this Act shall be reimbursed from the proceeds of the sale of bonds author-
11 ized by this Act.

12 * Sec. 5. The question whether the bonds authorized in this Act are to
13 be issued shall be submitted to the qualified voters of the state at the
14 next general election and shall read substantially as follows:

15 Proposition

16 State General Obligation Fisheries Resources Construc-
17 tion Bonds \$4,218,800

18 Shall the State of Alaska issue its general obligation bonds in
19 the principal amount of not more than \$4,218,800 for the purpose
20 of paying the cost of capital improvements for fisheries
21 resources protection and enhancement facilities?

22 Bonds Yes []

23 Bonds No []

24 * Sec. 6. This Act takes effect immediately in accordance with AS 01.-
25 10.070(c).

THE LEGISLATURE OF THE STATE OF ALASKA
ELEVENTH LEGISLATURE

FISCAL NOTE

I. REQUEST

Bill/Resolution No. SB 344 - "An Act providing for \$4,218,800 in GO bonds for
 Title fisheries resource protection facilities" (120 foot patrol vessel).
 Requested by Sen. Sumner Date 1/29/80

II. FISCAL DETAIL

Agency Affected Public Safety
 Program Category Affected NRMEC
 BRU, Program, or Subprogram(s) Affected Vessel Section (Marine Enforcement)
 (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)

	Y 80	FY 81	FY 82	FY 83	FY 84	FY 85
100 PERSONAL SERVICES			324.2	324.2	324.2	
200 TRAVEL			7.0	7.0	7.0	
300 CONTRACTUAL			103.2	123.9	123.9	
400 COMMODITIES			250.3	300.5	300.5	
500 EQUIPMENT			0	10.0	10.0	
600 LAND & STRUCTURES				-	-	
700 GRANTS, CLAIMS, ETC.				-	-	
TOTAL	0	0	684.7	765.6	765.6	

FUNDING (Thousands of Dollars)

GENERAL FUND	0	0	684.7	765.6	765.6	
FEDERAL FUNDS						
OTHER (Specify Fund Source)						

POSITIONS

FULL TIME	0	0	6	6	6	
PART TIME			1	1	1	
TEMPORARY						

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

Crewmember salary and benefit costs are: Lt. \$60.0; 1st Sgt. \$52.5; Cpl. \$50.7; 2 troopers \$47.8 each; Boat Engineer II \$45.4; and a part-time cook \$20.0. These costs include sea pay, similar to overtime and shift differential, to compensate crewmembers for shipboard duty. Both salary and other costs are comparable to the Vigilant's operating needs.

In contractual services, major items are: \$55.0 for repairs & maintenance and \$55.1 for insurance. In commodities, fuel use is estimated at 50 gallons/hour for 12 hours/day during 250 days at sea. The 150,000 gallons needed would cost \$270.0 using \$1.80/gallon as the price for diesel fuel.


Estimating vessel delivery on 9-1-81, major FY82 operating costs have been adjusted except for salary. Crew training is needed on other vessels until acceptance of the new vessel. Present costs are used for all expenses except fuel estimated at FY83 cost.

IV. DATE 1/29/80 PREPARED BY Mike Clemens
 AGENCY Public Safety
 PHONE 465-4336
 Original: Legislative Finance
 cc: Budget and Management
 Prime Sponsor (First Legislator Named)

Senator Bill Sumner
February 4, 1980
Page 2

The Department of Public Safety considered this 120 foot vessel its top capital budget priority, as evidenced by the Commissioner's list of priorities submitted to the Governor. I would like the opportunity, at your convenience, to meet and further discuss the potential uses and benefits of this vessel.

Sincerely,


Robert J. Stickles
Director

RJS/bh



Emasable Bond

25% COTTON FIBER

"An Act providing for the issuance of general obligation bonds in the amount of \$4,218,800 for the purpose of paying the cost of capital improvements for fisheries resources protection facilities; and providing for an effective date."

Senate Bill 344- By the Rules Committee by Request of the Governor

This bill would allow for the issuance of \$4,218,800 in general obligation bonds after the approval of the voters of the state. It would create a special fund known as the "1980 Fisheries Resources Facilities Construction Fund." Appropriations from the fund would go to the Department of Public Safety for the purchase of one 120-foot patrol boat to be based at Kodiak. In addition \$14,800 is appropriated from the general fund to cover costs of the bond sale. The actual ballot proposition will state "Shall the State of Alaska issue its general obligation bonds in the principal amount of not more than \$4,218,000 for the purpose of paying the cost of capital improvements for fisheries resources protection and enhancement facilities?"

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

January 17, 1980

The Honorable Clem Tillion
President of the Senate
Alaska State Legislature
Juneau, Alaska 99811

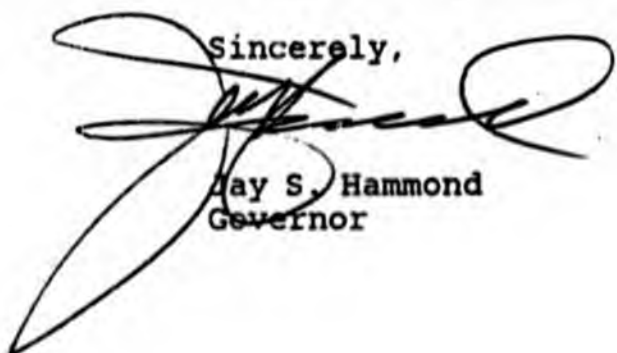
Dear Mr. President:

Under the authority of art. III, sec. 18 of the Alaska Constitution, I am transmitting a package of bond legislation consisting of 3 bills proposing bond issues as follows:

-- water and sewer systems --	25,520,000
-- University of Alaska facilities --	20,550,000
-- fisheries resources protection facilities --	4,218,800

Backup information will be furnished by my staff.

Sincerely,



Jay S. Hammond
Governor



STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

February 13, 1980

The Honorable Bill Sumner
Chairman
Senate Resources Committee
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Senator Sumner:

SB 344 contains several drafting errors that need to be corrected. They are as follows:

Sec. 1, page 1 line 13, delete word "and enhancement"

Sec. 2, page 1 line 22, after word "Resources" add word "Protection"

Sec. 2, page 1 line 25, after word "Resources" add word "Protection"

Sec. 5, page 2 line 16, after word "Resources" add word "Protection"

Sec. 5, page 2 line 21, delete words "and enhancement" immediately following word "protection".

Sincerely,


Keith W. Specking
Legislative Assistant
to the Governor



Official Business

Alaska State Legislature

Senate

Committee on Resources

February 4, 1980

Pouch V
State Capitol
Juneau, Alaska 99811

TO: Resources Committee Members
FROM: Jens Zehwe, Staff Member
REGARDING: Senate Bill 344

This bill would allow for the issuance of \$4,218,800 in general obligation bonds after the approval of the voters of the state. The money would go to the Department of Public Safety for the purchase of (1) 120-foot patrol boat, based at Kodiak to serve the Kodiak/Dutch Harbor areas. If approved, delivery of the vessel is expected sometime in September 1981.

The Department of Fish and Game estimates that between 8,000 and 20,000 unmarked and unclaimed illegal crab pots fish the Gulf and Bering Sea. Purchase of this vessel will give Fish and Wildlife Protection a second vessel to patrol the Kodiak.

See attached fiscal note and Department of Public Safety informational letter.

Exact Bill
Jens — is HB 691 —
Monday's comm-
mittee hearing
will have

SB 344

SB 402
Vice Bill

Fish &
Gunn
R^o

514A

1/28/80 Requested a fiscal note from Mike Clemmons
in Dept of Public Safety #4322

2/4/80 - Requested Garkes information from
Dept. of Public Safety - said he'd get it to
me this afternoon

See Mulcahy's office

2/7/80 - Called Bob Sticker - tell him of tentative
hearing on Monday 2/11/80 re SB344

2/28/80 will be heard 2/20/80 -

2/19 - Confirmed Bob Sticker and Carl Russo

2/20/80 - Bill passed out of Resources Comm.
Sent to Finance

February 20, 1980

The Senate Resources Committee voted to pass on Senate Bill 344 with these amendments:

First Page Line 9- Substitute vessel for facilities

First Page Line ~~19~~- Substitute vessel for facilities

First Page Line 22- Substitute vessel for facilities

First Page Lines 25-26- Substitute vessel for facilities

Second Page Line 21- ~~Substitute vessel for facilities~~

3897 Ken Vasser

@3897

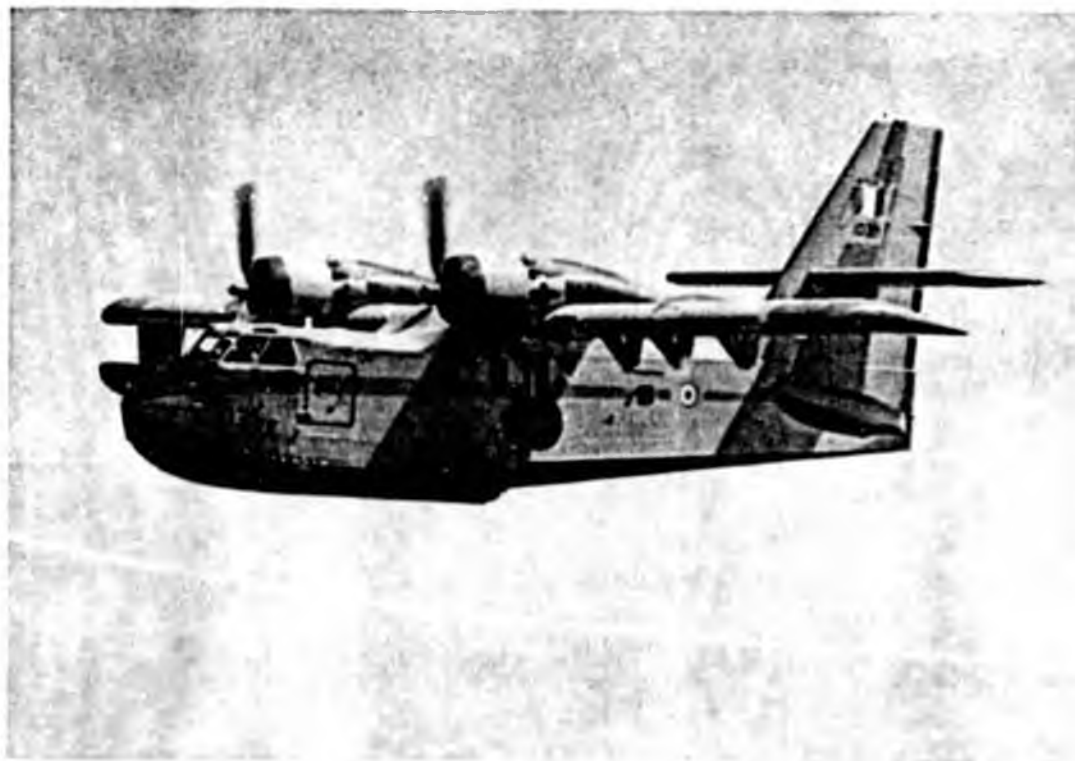
2/21 Bill given to Ken Vasser in
Legal Services for rewrite - it
questioned ~~whether~~ whether bonds
can be issued for non-stationary items,
hence that might be why the word facilities
is used

SB

345



canadair
CL-215



INTRODUCTION

The CL-215 is one of the most versatile aircraft in production today.

Designed to fill the need for a multi-purpose aircraft capable of efficient operation from both land and water, the CL-215 features:

The strength and dependability of fail-safe construction

The proven reliability of Pratt & Whitney engines

A rugged landing gear and robust hull

A large payload

A spacious cabin

Long range and endurance at low altitude

Exceptional manoeuvrability

Excellent water handling characteristics

Minimum maintenance requirements

Proven corrosion protection

This combination of features enables the CL-215 to be used in a variety of roles, including forest fire fighting, aerial spraying, patrol, search and rescue, and passenger/utility transportation.



canadair
P.O. Box 6087, STATION 'A' Montreal
Quebec, CA'JADA
H3C 3G9

PROJECT TITLE: Suppression/Air Operations/Plans/Cooperative Programs

AGENCY Dept. Natural Resources

STATUTORY BASIS: AS 41.15.010-700 (mandatory)

CATEGORY Natural Resource Mgt.

COVER PROGRAM NRMEC

BRU Forest Management

COMPONENT Fire Protection/Suppression

SHORT FORM PAGE _____

PROJECT DESCRIPTION: The State is presently responsible for fire protection on approximately 24,000,000 acres of land. Presuppression consists of detection and initial attack; suppression consists of actual fighting of fires. Under this project, the Department would contract for air operations on a stand-by basis for project fires.

(SOURCE OF REQUEST:

PROJECT LOCATION:

Statewide (where State has protection responsibility)

OBJECTIVES/POLICIES: Protect forest and other wildland resources and adjacent inhabitants and property from wildfire by maintaining a standing fire detection/suppression capability commensurate with wildfire risk; deploying fire detection/suppression personnel and equipment on project fires where wildfire threatens valuable natural resources, the safety of proximate inhabitants, or valuable private property; and maintaining sufficient equipment to combat wildfire on a cost effective basis.

DEPARTMENT PRIORITY:

Alternative if CL-215 capital project is ~~of~~ not funded

GOVERNOR'S ACTION:

No funding

INTEREST GROUPS AFFECTED: All who live in, work in, own, derive products or livelihood from, or recreate on lands under State protection.

LEAD DIVISION/PROJECT MANAGER:

Div. of Forest, Land & Water Mngmt
Theodore G. Smith, Director
Phone 279-5577

LEGISLATION/REGULATIONS REQUIRED: None

**DNR
PROJECT
BUDGET**

RESULTS DELIVERED

Under this Project, the Department would contract for air operations capability on a standby basis for project fires.

1st Yr.

SUMMARY OF PROJECT COST:		EL&WM Forestry	2nd Yr.	3rd Yr.	TOTAL
CODE	EXPENDITURES BY OBJECT	DIVISION	DIVISION	DIVISION	DIVISION
100	PERSONAL SERVICES	44.5			
200	TRAVEL	15.0			
300	CONTRACTUAL SERVICES	547.5			
400	COMMODITIES	39.0			
500	EQUIPMENT	15.0			
600	LANDS, BLDGS., ETC.				
700	GRANTS, CLAIMS, ETC.				
800	MISCELLANEOUS				
	TOTAL	661.0	727.1	799.8	2187.9
	1-A TRANS. (non-add)				
FED. RECEIPTS - CODE:					
GF MATCH.					
GEN. FUND					
1-A RCPTS.					
PGM RCPTS.					
OTHER					
OTHER					
CAPITAL					

DESCRIPTION OF ASSOCIATED CAPITAL COSTS:

None

COSTS TO OTHER AGENCIES BLM would incur costs if they utilize State contract aircraft on BLM responsibility fires.

PROJECT DURATION/LIFE CYCLE COST: Continuous-barring State acquisition of appropriate aircraft or a decision to significantly downgrade the level of protection.

PROJECT COST BREAKDOWN

PERSONAL SERVICES

PCN/JOB TITLE	LOCATION	DIVISION	SALARY	BENEFITS	NO. OF MONTHS	POSITION COST
Aircraft Supervision	Anch.	FLWM	20-A	28%	12	44.5

<u>TRAVEL</u>	AMOUNT	DIVISION	PURPOSE
	15.0	FLWM	Contract administration throughout State where aircraft are located.

<u>CONTRACTUAL</u>	AMOUNT	DIVISION	PURPOSE
	547.5	FLWM	3 super PBY at \$1000.00/day standby for 100 days + \$5.00/hr. for 125 hrs. each.

COMMODITIES

AMOUNT

DIVISION

PURPOSE

39.0

FLWM

20,000 gallons fuel at 1.50/gal. plus retardant plus misc. other commodities

EQUIPMENT

AMOUNT

DIVISION

PURPOSE

15.0

FLWM

Provide transfer/loading pumps and retardant mixers at Delta Junction and Anchorage 8.7; 3 wolfsburg 9600 Channel radios at \$2100 each.

POSSIBLE ADJUSTMENTS

UPWARD INCREMENT Increased funding would not provide optimal cost plus loss analysis.

DOWNWARD INCREMENT Reduced funding would lower level of protection and not provide optimal cost plus loss analysis.
Reduction of an aircraft would remove standby cost and radio expense (Contractual \$100.0; equipment 2.1)

RELATION TO LAST YEAR: This is a new program designed to provide effective and efficient aerial fire suppression support functions not currently available on a dependable basis.

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER

POUCH M - JUNEAU 98011

ANNUAL REPORT ON THE FIRE SUPPRESSION FUND

Prepared for the Alaska State Legislature

While the 1978 fire season was the mildest on record, the 1979 fire season was one of the worst on record for the State.

In accordance with AS 42.15.240 the following report of income and expenses of the fire suppression fund is submitted for the 1979 fire season.

The fund was established at \$750,000 by the 1978 Legislature. During the 1978 fire season \$75,955.75 was expended on fire suppression work. The 1979 Legislature did not appropriate funds to bring the suppression fund back to its original level. Due to this fact the sum of \$674,044.25 was available at the start of the 1979 fire season.

The 1979 fire season started with a few inconsequential fires near Fairbanks and in the Mat-Su Valley. On May 10, 1979 a fire was started within the Delta Barley project, the agricultural clearing project near Delta Junction. Under existing weather conditions of high wind and low humidity, the fire could not be controlled and grew to 2000 acres the first night. A project fire organization was initiated and the fire declared controlled on May 19, 1979 at 4200 acres. By May 25, the fire had been totally demanned. No new evidence of fire was observed until June 4, 1979.

June 4 was another day of high wind and low humidity. It has never been satisfactorily determined whether a new fire start was made or buried fire within the perimeter blew across and started in unburned fuels. A project fire organization was again ordered to attempt to control the fire. Fire control personnel stayed on the fire at various levels until the summer was ended. The fire made runs on June 24, July 4 and in August.

Late season problems continued to appear from the Delta Barley Project. During the fall some individuals started their berm piles with no effort to control fire spread. On October 16 an individual started his berm piles and under ideal fire conditions, made a run of six miles during the night.

The accompanying fire statistics indicate that state fire fighters were suppressing other fires through the area of state responsibility at the same time the Delta Barley fire was being fought.

To illustrate some of the major costs, the following items of expenditures are given. These are firm figures only through August but are indicative of the ration of major cost items on any project fire.

<u>Class of Expenditure</u>	<u>Costs</u>
Emergency Firefighter wages	\$1,091,572.36
Helicopter charter	305,259.88
Tractor rental	470,046.16
Other vehicle rental	190,714.06

These costs, along with the accompanying attachments indicate the Fires Suppression Fund must be better aligned with state fire responsibility. BLM predicts that by 1985 Alaska will have its full entitlement of land. Along with the land, the State's fire workload will increase many times over. By 1985 it is estimated 75 million acres of state land will be under fire protection.

Future Demands

Land will be transferred at the rate of 10-15 million acres per year; and will result in the State having 75% of the total fire cost on state lands by 1985. Total statewide fire cost in 1979 dollars is \$20,000,000 per year, therefore state funds must be able to support expenditures of \$14-15 million per year, with about \$5 million of this in project fire costs.

- Attachment A: Fire Cause - State Responsibility Lands
- Attachment B: Projected Fire Occurance Through 1985
- Attachment C: Problem Fire Identification State Lands Through 1985
- Attachment D: Statewide Fires by Cause - State and Federa' Lands
- Attachment E: Fire Suppression Funds - Receipts and Expenditures Calendar Year 1979

STATE RESPONSIBILITY LANDS

1979 FIRE SEASON

CAUSE	DISTRICT	FIRES		ACRES	
		NO.	%	NO.	%
LIGHTNING	NCD	22	7.8	458	1.1
	SCD	1	0.4	9	0.0
MAN CAUSED	NCD	127	44.8	41,697	98.1
	SCD	133	47.0	336	0.8
SUB-TOTAL		283		42,500	

1978 FIRE SEASON

CAUSE	DISTRICT	FIRES		ACRES	
		NO.	%	NO.	%
LIGHTNING	NCD	3	2.0	2	0.3
	SCD	1	0.6	-0-	0.0
MAN CAUSED	NCD	36	23.5	61	10.7
	SCD	113 ¹	73.9	509 ¹	89.0
SUB-TOTAL		153		572	

1. INCLUDES 2 FIRES IN SE & 100 ACRES

PROJECTED* FIRE OCCURRENCE THRU 1985

	LIGHTNING		MAN-CAUSED		FALSE ALARM		TOTAL	%	AVERAGE
	No.	%	No.	%	No.	%			
STATE RESPONSIBLE LAND	681	50	1,144	85	338	75	2,163	69%	432.6
FED. RESPONSIBLE LAND	659	50	195	15	107	25	961	31%	192.2
TOTAL (5 YEARS)	1,340		1,339		445		3,124		
ANNUAL AVERAGE	248		267.8				625		

*BASED ON 1972 - 1976 FIRE HISTORY

LANDS TRANSFERRED TO THE STATE AT 14 MILLION ACRES PER YEAR.

PROBLEM FIRE* IDENTIFICATION
STATE LANDS PROJECTED TO 1985

	PROBLEM FIRES		PERCENT		TOTAL FIRES	
	No.	COST	No.	COST	No.	COST
STATE	62	\$7,405,039	33	44	2163	\$9,527,000
FEDERAL	127	9,512,014	67	56	961	12,126,000
TOTAL	189	16,917,051			3124	21,653,000
AVERAGE	37.8	\$3,383,006			625	\$4,330,000

*PROBLEM FIRE: FIRES OVER 300 ACRES AND FIRES COSTING OVER \$100,000
BASED ON FIRE HISTROY, 1972 TO 1976 (5 YEARS)
PROBLEM FIRES ACCOUNTED FOR 78% OF THE TOTAL SUPPRESSION COST.
DOLLAR COSTS ARE ACTUAL EXPENDITURES, NOT ADJUSTED FOR INFLATION.

1979 FIRE SEASON
NO. OF FIRES BY CAUSE

STATE RESPONSIBILITY LANDS

CAUSE	DISTRICT	FIRES		ACRES	
		NO.	%	NO.	%
LIGHTNING	NCD	22	3.6	458	0.1
	SCD	1	0.2	9	0.0
MAN CAUSED	NCD	127	20.7	41,697	9.6
	SCD	133	21.5	336	0.1
SUB TOTAL		283	46.0	42,500	9.8

FEDERAL RESPONSIBILITY LANDS

CAUSE	DISTRICT	FIRES		ACRES	
		NO.	%	NO.	%
LIGHTNING	FAIRBANKS	164	26.7	384,534	89.2
	ANCHORAGE	24	3.9	787	0.2
MAN CAUSED	FAIRBANKS	74	12.0	2,249	0.5
	ANCHORAGE	70	11.4	1,444	0.3
SUB TOTAL		332	54.0	389,014	90.2
STATEWIDE TOTAL		615		431,514	

FIRE SUPPRESSION
RECEIPTS AND EXPENDITURES FOR CALENDAR YEAR 1979

RECEIPTS	10-42-9-500	10-42-9-505
January 1, 1979 Fire Suppression Fund	674,044.25	
June 5, 1979 Revised Program		315,000.00
June 3, 1979 Governor's Disaster Fund		395,000.00
August 7, 1979 Debt Service Lapse	86,900.00	513,100.00
August 7, 1979 Agricultural Loan Fund		1,200,000.00
	<u>760,944.25</u>	<u>2,423,100.00</u>
EXPENDITURES (1)		
January - June 1979 (attachment 1 minus 2)	760,856.98	
July - December 1979 (attachment 3)	707,429.53	
January - June 1979 (attachment 4)		661,855.40
July - December 1979 (attachment 5)		1,407,775.11
Total Expenditures	<u>1,468,286.51</u>	<u>2,069,630.51</u>
Adjustment (Prior year obligations decrease current and prior year authorizations)		46,826.72
December 31, 1979 Balance	<u>< 707,342.26 ></u>	<u>*306,642.77</u>

*This balance is the total of prior year and current year (119,417.88 + 187,224.89)

(1) See attachments numbers 1 thru 5 for line items allocations.

FY 80 NATURAL RESOURCES APPROPRIATIONS
SUPPLEMENTAL/SPECIAL CAPITAL REQUEST

WORKBOOK

Prepared by
Division of Budget and Management
Office of the Governor
January 1980

7C Analysis of Governor's Decisions

ITEM	AMOUNT	FUNDING SOURCE	EXPLANATION
Cadastral Land Surveying	6,903.1	GF	\$5,500.0 has been included in the Governor's FY 81 Capital request for Cadastral Land Surveys, thereby reducing this request.

CATEGORY NRMEC

AGENCY Natural Resources

PROGRAM Management and Administration

PROJECT TITLE Cadastral Land Surveying		LOCATION(S) Statewide	AREA SERVED Statewide	ELECTION DISTRICT(S) Statewide	
OFJ. NO(S)	OPERATING BUDGET BRU(S)	NAME(S) Information/Records Management	BUDGET COMPONENT NUMBERS	START DATE 7-1-80	
				COMPLETION DATE 6-30-81	
PROJECT NARRATIVE 1. PROJECT NEED STATEMENT Under Chapter 181, SLA 1978, this BRU submitted a capital improvement project to field identify by survey 100,000 acres of State land per year for disposal. AS 38.04.045 required that lands to be conveyed by the State must be surveyed prior to alienation. Further, where land is located within a Municipality with platting and zoning powers, plats for State subdivision would comply with local ordinances and regulations in the same manner and in the same extent as plats for subdivision by land owners. Chapter 85, SLA 1979, amended the subdivision powers of local municipalities by allowing the State to file their own subdivisions, but all State surveys must comply with local ordinances and regulations. AS 38.05.077 was repealed and reenacted to allow remote parcel location and disposal. A minimum amount of monumentation is performed in remote parcel areas but is necessary in order to be used as points of reference for the measurement of distances within an area. AS 38.05.047 was added as a new section and it requires that if land is suitable for residential use the Department shall survey and subdivide the land in a survey district. Under Chapter 26, SLA 1979 preference rights to Forest service permittees (from the Federal Government on lands acquired by the State thru the selection process) were afforded a first right opportunity to obtain the lands. As part of the fiscal analysis for that Legislation,		PROJECT TYPE <input type="checkbox"/> Building Construction (C) <input type="checkbox"/> Other Improvement (I) <input type="checkbox"/> Equipment (E) <input checked="" type="checkbox"/> Land (L) <input type="checkbox"/> Professional Services (P) <input type="checkbox"/> Other (O)	APPROPRIATION REQUEST 1002 FED. RCPTS. 1003 G/F MATCH 1004 GEN. FUND 12,903.1 1005 I/A RCPTS. G.O. BONDS TOTAL 12,903.1		
		PROJECT CHARACTERISTICS <input type="checkbox"/> Totally New Facility <input type="checkbox"/> Addition to Existing Facility <input type="checkbox"/> Renovation of Existing Facility <input type="checkbox"/> Major Maintenance or Repair <input type="checkbox"/> Supplement Previously Authorized Funds to Enable Completion <input type="checkbox"/> One of Several Phases <input type="checkbox"/> Major External Funding Source <input type="checkbox"/> Other	GOVERNOR'S RECOMMENDATION APPROVED DEFERRED DISAPPROVED <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 1002 FED. RCPTS. 1003 G/F MATCH 1004 GEN. FUND 6,903.1 1005 I/A RCPTS. G.O. BONDS TOTAL		
		NO YES SITE FEATURES <input type="checkbox"/> <input type="checkbox"/> Site Currently Owned? <input type="checkbox"/> <input type="checkbox"/> All Utilities Available? <input type="checkbox"/> <input type="checkbox"/> Access Already Available?	01-1038a (12/79)		
		OPERATIONAL COST & NO. PERSONNEL INCREASE (DECREASE)	FIRST OPERATING YEAR 81	ULTIMATE ANNUAL YEAR 82	PREVIOUS YR-PRIORITY
		FUNDING SOURCE FED. RCPTS. GEN. FUND			AGENCY PRIORITY
		TOTAL ANNUAL OPERATIONAL COST			GOVERNOR'S PRIORITY
		POSITION (PTE)	N/A	N/A	

CATEGORY NRHECAGENCY Natural ResourcesPROGRAM DNR Management and Administration

01-1038a (7/78)

35a

PROPOSED CAPITAL
PROJECTREVISED
DATE

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CAPITAL PROJECT EXPENDITURES (CASH FLOW)	TOTAL	BUDGET YEAR	BUDGET YEAR Plus 1	BUDGET YEAR Plus 2	BUDGET YEAR Plus 3	BUDGET YEAR Plus 4	REMAINING COST
Planning and Engineering (300)	11,741.0	11,741.0					0
Land N/A							0
Equipment N/A							0
Equipment (500)	11.0	11.0					0
Administration and Other (100, 200, 400)	1,151.1	1,151.1					0
Total Annual Expenditure (Capital Cost)	12,903.1	12,903.1					0

CONTINUATION OF NARRATIVE

this BRU requested funds to perform the preference rights surveys if requested by the permittee. Therefore, this project is requesting additional funds to perform these preference right surveys that are approved in FY 80.

A part of the Land Disposal Process requires the daily recording of State land activity on Status Plats, Historical Indices and Serial Pages. Therefore, this project request is including personnel to accomplish this increased work-load during this project.

The Cadastral Land Surveying Project is developed to survey in the year prior to disposal because of the seasonal/ weather restrictions for field surveying. Therefore, this capital project requests which included FY 82 and FY 83 disposal areas should not be construed as requesting funds for those fiscal years, but that we are requesting funds for surveying for disposal of lands to be made available in FY 82 and 83.

1. PROJECT DESCRIPTION

Chapter 85, SLA 1979, created a land disposal bank. As part of the process the Department is required to make available 100,000 acres of land for disposal in each fiscal year. This is broken into approximately 75,000 acres for remote parcels and 25,000 acres of small tract parcels which range from 1 to 5 acre in size. The public is obtaining lands that have been identified, monumented, platted and recorded, creating a firm Land Title Document for the passing of State Land Title. The State is lowering the cost to the consumer in obtaining a parcel of land by having the surveys performed in groups which decreases the cost of survey field work. Each project for subdivision goes thru six phases in order to complete the project area. This includes the site evaluation, photography and mapping, feasibility plan, master plan, preliminary platting, and final plat. The site evaluation is researching for lands that are suitable for the intended purpose, investigation of the environmental concerns, and office investigation for access (both legal and physical) the area to be surveyed, and meeting with other Department personnel. The photography and mapping included horizontal and vertical control for the photography, contour mapping, ground truthing for the preliminary soils work, and a final discussion with the Division of Technical Services personnel to see if the project is still feasible. The next phase, the feasibility plan, reviews all the

CATEGORY NRMEC AGENCY Natural Resources PROGRAM Management and Administration

PROJECT TITLE Cadastral Land Surveying

35b PROPOSED PROJECT ANALYSIS

REVISED DATE _____

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data of phases 1 and 2 and has an overall master plan and general concept showing the soils, the determination of usable and unusable lands and a brief overview of waste water disposal. This is discussed with other interested parties and department personnel. The master plans include a general lot layout, including approximate sizes and general configuration based upon the data gathered to date. Ideally this includes two or three plans that can be refined and adjusted for a final master plan. The preliminary platting process is submitting it to the Borough and other agencies as applicable. The final plat is the final survey staking of the approved master and preliminary plans. These phases are established so that if for policy or technical reasons a project should be deleted, adjusted, or be delayed, a decision can be made that minimizes the cost of that project at that stage.

Presently, there is only one to two percent of State lands that have densified monumentation. The Federal Government in passing title to the State surveys the exterior of a township approximately every two miles and a township is a six mile by six mile block. Therefore, the interior monumentation required for remote parcels or subdivision is what this project accomplishes in addition to that previously stated.

These projects are Statewide from areas drawn from the Land Disposal Bank and in subdivision areas are generally close to existing transportation corridors. The projects are identified thru the Land Availability Determination Schedule (L.A.D.S.)

III. DOCUMENTATION OF ESTIMATED CAPITAL COST

The cost listed below for each subproject was estimated by Division of Technical Services Personnel in August, 1979. The estimated cost for the FY 81 Capital Budget request utilizes professional assumptions made on the past awards of survey contracts in FY 79 and FY 80.

A.	FY 81 LAND DISPOSALS		
	100	875.6	
	200	50.0	
	300	5,500.0	
	400	20.0	
	500	12.0	
SUBTOTAL		<u>6,455.6</u>	26 FTE

CONTINUATION FORM

CATEGORY NRMEC AGENCY Natural Resources PROGRAM DNR Management and Administration

PROJECT TITLE Cadastral Land Surveying

35

REVISED DATE _____

000004

B. FY 82 LAND DISPOSALS

100	0	
200	0	
300	5,500.0	
400	0	
500	0	
SUBTOTAL	5,500.0	0 FTE

C. FY 83 LAND DISPOSALS

100	0	
200	0	
300	500.0	
400	0	
500	0	
SUBTOTAL	500.0	0 FTE

D. RECORDS

100	194.5	
200	5.0	
300	3.0	
400	6.0	
500	1.0	
SUBTOTAL	209.5	7 FTE

E. PREFERENCE RIGHTS

100	0	
200	0	
300	238.0	
400	0	
500	0	
SUBTOTAL	238.0	0 FTE

CONTINUATION FORM

CATEGORY NRMEC AGENCY Natural Resources PROGRAM DNR Management and Administration

PROJECT TITLE _____

35

REVISED DATE _____

000005

IV. ANALYSIS OF ESTIMATE OF OPERATIONAL EXPENSE

This project is designed and planned to function with its own administrative cost for personnel, travel, contractual, commodities and equipment. However, there is some overlap with operating personnel work during the life of the project, but it is a minimal and not a continuing situation.

V. IDENTIFICATION OF ALTERNATIVES CONSIDERED

1. Our operating budget level of funding necessary for the large scale disposal actions, does not allow this level of funding in order to accomplish the mandated disposals.
2. In lieu of having numerous full time field survey technicians, it is beneficial to contract for the actual field survey work to be performed. An ample number of firms are located throughout the State and in communities generally where our projects are located. This ease of operations with a minimum survey staff offsets numerous personnel, field equipment and logistics problems, and allows us expeditious operations in several locations at once.
3. Allowing land to be appropriated and surveyed by private individuals presents problems presently encountered in the former open-to-entry program. Administrative costs are not recoverable by the sale of the land. The administrative costs are to insure that lands are properly and legally identified according to the Division of Technical Services Survey criteria before being alienated.
4. Requesting other agencies, either State or Federal, was rejected based on an analysis made in our FY 79 Capital Budget. As identified in that budget request, unique handling of local platting, planning and zoning authorities is a consideration when involving a Federal agency such as the BLM. With the exception of townsite programs by the BLM the majority of their contracts are large cadastral survey projects. BLM is not in the position to program for densifying their monumentation for State purposes in order to quickly pass title.

CONTINUATION FORM

CATEGORY NRMEC AGENCY Natural Resources PROGRAM DNR Management and Administration
PROJECT TITLE Cadastral Land Surveying
01-1033 (7/78)

35	REVISED DATE _____
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The proposed Capital Program is for the purchase of four (4) aircraft whose primary mission is for use in the State's fire suppression program, although it will be available for many other uses by various state agencies. This Capital Program is in the Inspection and Protection BRU.

The Governor's policy theme number 3, "To provide government services which meet the needs of Alaskans in an effective and efficient manner", is most closely related to the program objectives guiding this plan.

Objective #1: Provide the necessary air support for the State's fire suppression program mandated by statute.

Alaska has only been in actual fire suppression activities briefly. Previously all State and private lands were contracted to the Bureau of Land Management (BLM). BLM has declared its intention and in fact has withdrawn from protecting State and private lands in the populated areas of the State. Because of change in protection responsibilities and the State's short period of being in the actual fire business air support capability must be obtained to provide fire protection at a necessary level. This capital program request is a departure from normal contracting procedure for aircraft because of financial savings over the long term.

Objective #2: Take advantage of existing State expertise and facilities to reduce costs.

The Department of Military Affairs has the trained crews and maintenance personnel to operate these aircraft. In addition facilities are available for maintaining the aircraft and providing security for them. The Commissioner of the Department of Military Affairs has stated that this program is a viable mission and expressed his willingness to enter an operating agreement. By utilizing existing State expertise and facilities the possibility for reducing costs is very real.

Objective #3: To provide for other agencies' needs for aircraft by taking advantage of the aircrafts versatility.

In fire suppression work single-use aircraft normally have been contracted for. Aerial tankers could only drop retardant, smokejumper aircraft could only drop smokejumpers and to some extent haul crews, cargo hauling by some other specialized aircraft. The type aircraft in this program does all of the above activities. The aircraft's ability to drop water, smokejumpers, haul cargo, and passengers decreases the need for additional aircraft. This versatility enables it to provide services needed by other agencies.

CATEGORY NRMEC AGENCY Dept. Natural Resources PROGRAM Land and Water Management

7C Analysis of Governor's Decisions

ITEM	AMOUNT	FUNDING SOURCE	EXPLANATION
Canadair CL-215 Purchase	5,067.0	GF	Purchase of two planes (\$4,700.0), import duties (\$238.0) and insurance (\$132.0) is included.

CATEGORY NRMEC

AGENCY Natural Resources

PROGRAM Forest, Land and
Water Management

PROJECT TITLE Canadair CL-215 Purchase		LOCATION(S) Anchorage	AREA SERVED Statewide	ELECTION DISTRICT(S) 7-12																			
OBJ. NO(S) 3	OPERATING BUDGET BRU(S) Inspection and Protection	NAME(S)	BUDGET COMPONENT NUMBERS 10-42-1-500	START DATE 1981																			
PROJECT NARRATIVE 1. Project Need Statement The State is statutorily responsible for fire protection of all State and privately owned lands in Alaska. At the present time the State is protecting with its own forces 21 million acres of land. It is understood that the BLM and State have agreed to conveyance of 10 million acres per year for the next seven years. These facts point out that within seven years the State will have received its full entitlement of 103 million acres. Of this 103 million acres roughly 75 million acres will require fire protection. The State has only recently become involved in actual fire suppression with its own forces and has not required the necessary equipment to properly fulfill its mission. Aircraft, must be provided if life, property, and resources are to be protected at an acceptable level. The State has never been funded for other than helicopters for initial attack on fires. Air tanker support has come from BLM sources on an "as available" basis. This source of availability will decrease with time. Air tankers are vital to any viable fire suppression activity and must be provided for or risk an unacceptable level of loss by wildfire.		PROJECT TYPE <input type="checkbox"/> Building Construction (C) <input type="checkbox"/> Other Improvement (I) <input checked="" type="checkbox"/> Equipment (E) <input type="checkbox"/> Land (L) <input type="checkbox"/> Professional Services (P) <input type="checkbox"/> Other (O)		APPROPRIATION REQUEST <table border="1"> <tr><td>1002</td><td>FED. RCPTS.</td><td></td></tr> <tr><td>1003</td><td>G/F MATCH</td><td></td></tr> <tr><td>1004</td><td>GEN. FUND</td><td>13,599.0</td></tr> <tr><td>1005</td><td>I/A RCPTS.</td><td></td></tr> <tr><td></td><td>G.O. BONDS</td><td></td></tr> <tr><td colspan="2">TOTAL</td><td>13,599.0</td></tr> </table>		1002	FED. RCPTS.		1003	G/F MATCH		1004	GEN. FUND	13,599.0	1005	I/A RCPTS.			G.O. BONDS		TOTAL		13,599.0
		1002	FED. RCPTS.																				
		1003	G/F MATCH																				
		1004	GEN. FUND	13,599.0																			
1005	I/A RCPTS.																						
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TOTAL		13,599.0																					
PROJECT CHARACTERISTICS <input type="checkbox"/> Totally New Facility <input type="checkbox"/> Addition to Existing Facility <input type="checkbox"/> Renovation of Existing Facility <input type="checkbox"/> Major Maintenance or Repair <input type="checkbox"/> Supplement Previously Authorized Funds to Enable Completion <input type="checkbox"/> One of Several Phases <input type="checkbox"/> Major External Funding Source <input checked="" type="checkbox"/> Other		GOVERNOR'S RECOMMENDATION APPROVED DEFERRED DISAPPROVED <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <table border="1"> <tr><td>1002</td><td>FED. RCPTS.</td><td></td></tr> <tr><td>1003</td><td>G/F MATCH</td><td></td></tr> <tr><td>1004</td><td>GEN. FUND</td><td>5,067.0</td></tr> <tr><td>1005</td><td>I/A RCPTS.</td><td></td></tr> <tr><td></td><td>G.O. BONDS</td><td></td></tr> <tr><td colspan="2">TOTAL</td><td>5,067.0</td></tr> </table>		1002	FED. RCPTS.		1003	G/F MATCH		1004	GEN. FUND	5,067.0	1005	I/A RCPTS.			G.O. BONDS		TOTAL		5,067.0		
1002	FED. RCPTS.																						
1003	G/F MATCH																						
1004	GEN. FUND	5,067.0																					
1005	I/A RCPTS.																						
	G.O. BONDS																						
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NO YES SITE FEATURES <input type="checkbox"/> <input checked="" type="checkbox"/> Site Currently Owned? <input type="checkbox"/> <input checked="" type="checkbox"/> All Utilities Available? <input type="checkbox"/> <input checked="" type="checkbox"/> Access Already Available?		01-1035 (12/79)																					
OPERATIONAL COST & NO. PERSONNEL INCREASE (DECREASE)		FIRST OPERATING YEAR 81	ULTIMATE ANNUAL YEAR 81	PREVIOUS YR-PRIORITY																			
FUNDING SOURCE	FED. RCPTS.			AGENCY PRIORITY																			
	GEN. FUND	1246.2	611.2																				
TOTAL ANNUAL OPERATIONAL COST		1246.2	611.2	GOVERNOR'S PRIORITY																			
POSITION (FTE)		48 MM	48 MM																				

CATEGORY NRMEC AGENCY Dept. Natural Resources PROGRAM Land and Water Management

B. Contract for all aircraft needs (continued)

advantages of having a multipurpose aircraft intended for use by a number of user agencies, not just for fire season. The number of contract aircraft suitable for airtanker work is dwindling. All available contract aircraft are modified military aircraft 30 to 40 years old and some are being deadlined each year.

C. Provide no aircraft capability:

This is not a viable alternative in view of the State's fire responsibilities. The lands protected by the State are those lands of highest value and population density. The threat to life, property, and resources is too real to allow this alternative to be valid. The support these aircraft will provide will allow State forces to keep most fires small, without aircraft support there will be many more project fires costing the State more in the long run than the purchase price of the aircraft.

CONTINUATION FORM

CATEGORY NRMEC AGENCY Dept. Natural Resources PROGRAM Land and Water Management

PROJECT TITLE Canadair CL-215 Purchase

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REVISED DATE _____

CL-215 Study and Recommendations

The 1979 fire season has been the second highest year, in terms of state fire expenditures, in the history of the state. In 1969 we expended \$4,000,000. We are approaching that figure this year. It is a safe assumption that Alaska's fire bills are going to remain in the millions of dollars and by far exceed the record of \$4,000,000 for 1969.

A quick look at the map contained in this report will show why our fire bills will continue to climb. The map shows state ownership and outlined in red is state selections. A very high percentage of both state owned and state selected lands require some level of protection from fire. The time has come for the state to recognize it has a very large role to play in fire suppression now and in the very near future. In addition to state lands we are statutorily responsible for private lands. Considering ANSCA that means at some point in time 44,000,000 acres will be added to state lands for protection purposes.

The magnitude of the states fire responsibilities now and in the near future warrants consideration of new concepts in firefighting activities. The state simply cannot afford some of the concepts in use today. We must be willing to apply new methods and cut costs where possible, particularly in use of aircraft or else the state will be contracting aircraft to the tune of \$9,500,000 annually as does BLM. The attached evaluation, in my mind proves beyond a doubt a vehicle exists and is in use today that will save the state millions of dollars. We only need the courage and foresight to break away from forty years of doing it the same way and accept a new concept in firefighting methods.

I recommend the state purchase the two CL-215s that Canadair Ltd. has offered for the following reasons:

1. By utilizing the Air National Guard as indicated in their letter the state will provide its own operations and maintenance program. By the two agencies operating together we will not pay a daily guarantee as we would were we to contract. Also the planes would be available for state missions other than fire.
2. Although the hourly operating and replacement costs appear high consider the calculations are based on new aircraft and 15 years depreciation but the aircraft life time is in excess of 30 years. For example BLM uses C-119s and PBVs, these aircraft are close to 40 years old and still in use.
3. As per Canadairs letter of June 26, 1979 now is the time to purchase because their next production the cost per plane will be \$4,000,000 as opposed to \$2,200,000 and \$2,500,000 respectively.
4. In comparing productivity using the same fire situation two PBVs would be needed to deliver the same gallonage as one CL-215. It would take four C-119s to equal the productivity of one CL-215. This point was proven very well this summer on the Delta Barley Fire. The CL-215 dropped as many as 28 loads in a five hour period. Had the plane been land based and restricted to retardant the very best it could have delivered is five loads and the retardant would have cost

\$8,500.00 as opposed to nothing for the water.

5. The individual evaluations clearly demonstrate the value and superiority of the CL-215 over other aircraft in fire suppression work. The option of water or retardant represents a potential for great savings. This versatility is an asset no other firefighting aircraft has. This one plane can drop water or retardant, it can haul crews to and from fires, it can move equipment and supplies and it can be used for smokejumping.

Air operations as they are conducted with present day aircraft is inefficient and expensive. C-119 and PBVs are used only for retardant drops, crew transportation is by Volpars and Twin Otters, cargo by C-123s, and smokejumping by Volpars. The CL-215 can do any one or all of these missions. No wonder BLM's aircraft operations exceed \$9,000,000 per year.

6. One of the best reasons for purchasing these aircraft is due to its great versatility, and CL-215 is not limited to strictly fire suppression activity. Other state and federal agencies would have many uses for the aircraft. Fish and Game, Public Safety and Environmental Conservation have need for this type of aircraft to name a few. Also the very real possibility of contracting the planes during our off season exists.

Included in this study are various documents supporting the reasons why purchase of these aircraft would be in the state's interest. In addition there is a section on "obligations". The section includes an outline of correspondence dating back to 1964. Not all of this correspondence is included. However, the selected documents clearly indicate that the State of Alaska has no choice but to become involved in fire suppression. The BLM clearly states they will not do it for us as in the past. I urge anyone who reads this study to satisfy themselves that the state is in the fire business to stay.

Recognizing we must have a state firefighting organization we should, while we are new in the business select the best most cost effective way of getting the job done. The CL-215 is the most effective tool we could possibly acquire.

7C Analysis of Governor's Decisions

ITEM	AMOUNT	FUNDING SOURCE	EXPLANATION
Statewide Fire Warehousing	\$854.0	GF	Only commodities and equipment items are funded.

CATEGORY NRMEC AGENCY Natural Resources PROGRAM Management of Forest Land and Water Resources

7C ANALYSIS OF GOVERNOR'S DECISIONS

14

PROJECT TITLE Statewide Fire Warehousing		LOCATION(S) Anchorage-Fairbanks	AREA SERVED Statewide	ELECTION DISTRICT(S) 7-12, 20																							
OBJ. NO(S) 3	OPERATING BUDGET BRU(S) Land & Water Mgmt.	NAME(S)	BUDGET COMPONENT NUMBERS 10-42-1-500	START DATE July 80																							
PROJECT NARRATIVE		PROJECT TYPE		COMPLETION DATE Dec 81																							
<p>I. Project Need Statement:</p> <p>Presently the only source of fire warehousing is from BLM stocks. Items available to the State run from Emergency Fire Fighter packs to fire communications system. For the past 4 years Bl. has been providing this service under terms of the BLM-State Cooperative Agreement. At the present time the State is not capable of supporting its fire fighting forces in the field without BLM warehouse facilities.</p> <p>Under terms of the agreement BLM support will cease in 1981. The implication by this withdrawal is the State must replace this warehousing capability or a reduction in the State's fire fighting effectiveness will occur or even cease to be functional.</p> <p>The State is scheduled to receive an additional 70 million acres over the next 7 years. This fact, coupled with BLM's withdrawal of their facilities clearly indicates a need exists to provide the State's own facilities.</p> <p>II. Project Description:</p> <p>This project is to provide necessary supplies and equipment for State initial attack crews and to support project fires as they occur.</p> <p>Some examples of items stocked are: EFF packs, shovels, pulaskis, pumps, chain saws, fire net communications systems. The supplies and equipment</p>		<input type="checkbox"/> Building Construction (C) <input type="checkbox"/> Other Improvement (I) <input checked="" type="checkbox"/> Equipment (E) <input type="checkbox"/> Land (L) <input type="checkbox"/> Professional Services (P) <input checked="" type="checkbox"/> Other (O)		<table border="1"> <tr><th colspan="3">APPROPRIATION REQUEST</th></tr> <tr><td>1002</td><td>FED. RCPTS.</td><td></td></tr> <tr><td>1003</td><td>G/F MATCH</td><td></td></tr> <tr><td>1004</td><td>GEN. FUND</td><td>1021.5</td></tr> <tr><td>1005</td><td>I/A RCPTS.</td><td></td></tr> <tr><td></td><td>G.O. BONOS</td><td></td></tr> <tr><td colspan="2">TOTAL</td><td>1021.5</td></tr> </table>	APPROPRIATION REQUEST			1002	FED. RCPTS.		1003	G/F MATCH		1004	GEN. FUND	1021.5	1005	I/A RCPTS.			G.O. BONOS		TOTAL		1021.5		
		APPROPRIATION REQUEST																									
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	G.O. BONOS																										
TOTAL		1021.5																									
PROJECT CHARACTERISTICS		GOVERNOR'S RECOMMENDATION																									
<input type="checkbox"/> Totally New Facility <input type="checkbox"/> Addition to Existing Facility <input type="checkbox"/> Renovation of Existing Facility <input type="checkbox"/> Major Maintenance or Repair <input type="checkbox"/> Supplement Previously Authorized Funds to Enable Completion <input checked="" type="checkbox"/> One of Several Phases <input type="checkbox"/> Major External Funding Source <input type="checkbox"/> Other		<table border="1"> <tr><th>APPROVED</th><th>DEFERRED</th><th>DISAPPROVED</th></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>1002</td><td>FED. RCPTS.</td><td></td></tr> <tr><td>1003</td><td>G/F MATCH</td><td></td></tr> <tr><td>1004</td><td>GEN. FUND</td><td>854.0</td></tr> <tr><td>1005</td><td>I/A RCPTS.</td><td></td></tr> <tr><td></td><td>G.O. BONDS</td><td></td></tr> <tr><td colspan="2">TOTAL</td><td>854.0</td></tr> </table>		APPROVED	DEFERRED	DISAPPROVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1002	FED. RCPTS.		1003	G/F MATCH		1004	GEN. FUND	854.0	1005	I/A RCPTS.			G.O. BONDS		TOTAL		854.0
APPROVED	DEFERRED	DISAPPROVED																									
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																									
1002	FED. RCPTS.																										
1003	G/F MATCH																										
1004	GEN. FUND	854.0																									
1005	I/A RCPTS.																										
	G.O. BONDS																										
TOTAL		854.0																									
NO YES SITE FEATURES		01-1035a (12/72)																									
<input type="checkbox"/> Site Currently Owned? <input type="checkbox"/> All Utilities Available? <input type="checkbox"/> Access Already Available?																											
OPERATIONAL COST & NO. PERSONNEL INCREASE (DECREASE)		FIRST OPERATING YEAR 81	ULTIMATE ANNUAL YEAR 82	PREVIOUS YR-PRIORITY																							
FUNDING SOURCE	FED. RCPTS.			AGENCY PRIORITY																							
	GEN. FUND	1021.5	381.0																								
TOTAL ANNUAL OPERATIONAL COST		1021.5	381.0	GOVERNOR'S PRIORITY																							
POSITION (FTE)		6	6																								

CATEGORY NRMEC AGENCY Dept. Natural Resources PROGRAM Land & Water Management

CAPITAL PROJECT EXPENDITURES (CASH FLOW)	TOTAL	BUDGET YEAR	BUDGET YEAR Plus 1	BUDGET YEAR Plus 2	BUDGET YEAR Plus 3	BUDGET YEAR Plus 4	REMAINING COST
Planning and Engineering							
Land							
Construction							
Equipment & Supplies	1021.5	1021.5	381.0	409.6	440.3	473.3	
Administration and Other							
Total Annual Expenditure (Capital Cost)	1021.5	1021.5	381.0	409.6	440.3	473.3	

CONTINUATION OF NARRATIVE

will be warehoused in Fairbanks and Anchorage at District headquarters.

III. Documentation of Estimated Capital Costs:

Estimated Capital Costs were obtained from discussions and cost studies of the BLM's fire warehousing procedures. The result of these studies were adjusted downward to conform to estimated State requirements.

100 Personal Services	72 MM	155.1
200 Travel		4.0
300 Contractual		8.4
400 Commodities		388.4
500 Equipment		465.6

Estimated Capital Costs 1st Year 1021.5

IV. Analysis of Estimated Impact on Operating Budget:

Budget year will show a large increase due to initial start up, subsequent years will show a significant reduction. BLM studies have indicated replacement of stocks are about one fourth the total inventory when fully stocked.

	Budget Year	Budget Year +1
100 72 MM	155.1	155.1
200	4.0	4.0
300	8.4	8.4
400	388.4	97.1
500	465.6	116.4
	1021.5	381.0

CATEGORY NRMEC AGENCY Dept. Natural Resources PROGRAM Land & Water Management

PROJECT TITLE Statewide Fire Warehousing

35b

PROPOSED PROJECT
ANALYSIS

REVISED
DATE

1b

Succeeding budget years would reflect increases caused by inflation.

V. Identification of Alternatives Considered:

A. Project as described in this budget proposal:

Based upon studies of BLM warehousing operations and adjusted the State requirements, this project will provide adequate support to the States fire suppression program for the next five to ten years.

Failure to approve this project will result in the State's capability to protect life, property, and resources to fall below a standard acceptable to the public.

B. Continue to Utilize BLM's Warehousing Facilities:

Under terms of the BLM-State Cooperative Agreement, the State will no longer be able to exercise this alternative as in previous years. BLM will no longer supply the State's initial attack needs and will only support project fires as a secondary mission to their own needs.

C. Rely on Boise Interagency Fire Center for Supplies and Equipment:

Major items could be obtained with this alternative but not the basic supply items. This center operates out of Boise, Idaho and would produce an unacceptable time lag as well as increase costs due to air freighting material to Alaska and return to Boise.

D. Provide no Statewide Fire Warehousing at all:

This alternative is unacceptable. Without immediate support in supplies and equipment the State's ability to fight fire would be eliminated.

CONTINUATION FORM

CATEGORY NRMEC AGENCY Dept. Natural Resources PROGRAM Land & Water Management

PROJECT TITLE Statewide Fire Warehousing

35

REVISED DATE _____

17

PROJECT TITLE Fire Fighting Costs		LOCATION(S) Statewide	AREA SERVED Statewide	ELECTION DISTRICT(S) All	
OBJ. NO(S)	OPERATING BUDGET BRU(S) Management & Protection	NAME(S)	BUDGET COMPONENT NUMBERS 10-42-1-500 & 520	START DATE July 1977	
PROJECT NARRATIVE		PROJECT TYPE	APPROPRIATION REQUEST		
<p>I. Project Need Statement Wildland firefighting during the summer of 1979 incurred direct costs to the state of some 4 million dollars. Funds available for this purpose were less than \$700,000 from the Fire Suppression Fund and the State's Disaster Fund. In order to meet these obligations \$1.2 million was borrowed from the Agriculture Revolving Loan Fund and funds were shifted whenever possible in order to meet payrolls and pay contractors.</p> <p>This project will repay these loans, reestablish the firefighting capabilities of the department for the 1980 fire season, and provide training funds for both the 1980 and 1981 season.</p>		<input type="checkbox"/> Building Construction (C) <input type="checkbox"/> Other Improvement (I) <input type="checkbox"/> Equipment (E) <input type="checkbox"/> Land (L) <input type="checkbox"/> Professional Services (P) <input type="checkbox"/> Other (O)	1002	FED. RCPTS.	
			1003	O/F MATCH	
<p>II. Project Description: The project has four elements:</p> <p>a. Payment due BLM: \$1,500,000. Actual audited billing for BLM suppression efforts on state lands for 1978 total \$600,000. Estimated charges for 1979 amount to \$900,000. The estimate is from BLM's data center in Denver, Colorado and a bill for this amount is now due and payable.</p> <p>b. Repayment to Agricultural Revolving Loan Fund: \$1,200,000. After exhausting the fire suppression fund and the state's disaster fund, the state was still far short of money to meet payrolls and pay contractors. To continue to meet firefighting responsibilities statewide a loan was procured from this source.</p>		<p>PROJECT CHARACTERISTICS</p> <input type="checkbox"/> Totally New Facility <input type="checkbox"/> Addition to Existing Facility <input type="checkbox"/> Renovation of Existing Facility <input type="checkbox"/> Major Maintenance or Repair <input type="checkbox"/> Supplement Previously Authorized Funds to Enable Completion <input type="checkbox"/> One of Several Phases <input type="checkbox"/> Major External Funding Source <input type="checkbox"/> Other	GOVERNOR'S RECOMMENDATION		
			APPROVED DEFERRED DISAPPROVED <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
		<p>SITE FEATURES</p> <input type="checkbox"/> Site Currently Owned? <input type="checkbox"/> All Utilities Available? <input type="checkbox"/> Access Already Available?	1002	FED. RCPTS.	
			1003	O/F MATCH	
			1004	GEN. FUND	3,603.0
			1005	I/A RCPTS.	
			G.O. BONDS		
			TOTAL		3,603.0
			TOTAL		3,603.0
			01-1038a (12/78)		
		OPERATIONAL COST & NO. PERSONNEL	FIRST OPERATING YEAR	ULTIMATE ANNUAL YEAR	PREVIOUS YR-PRIORITY
		INCREASE (DECREASE)			AGENCY PRIORITY
		FED. RCPTS.			GOVERNOR'S PRIORITY
		GEN. FUND			
		TOTAL ANNUAL OPERATIONAL COST			
		POSITION (FTE)			

CATEGORY NRMC AGENCY Natural Resources PROGRAM Lands & Water Management

CAPITAL PROJECT EXPENDITURES (CASH FLOW)	TOTAL	BUDGET YEAR	BUDGET YEAR Plus 1	BUDGET YEAR Plus 2	BUDGET YEAR Plus 3	BUDGET YEAR Plus 4	REMAINING COST
Planning and Engineering							
Land							
Construction							
Equipment							
Administration and Other Firefighting Costs	3,600.0	3,600.0					
Total Annual Expenditure (Capital Cost)	3,600.0	3,600.0					

CONTINUATION OF NARRATIVE

- c. Unpaid bills: \$200,000. This item is part of the Capital Project to provide for late or lost billings and any claims that might stem from firefighting activities. Known bills include payment for use of private property for camp and air operations, operating costs for CL-215 aircraft on the Delta Fire, etc.
- d. Operations and Training: \$700,000. Funds originally programmed for air operation and training for the 1980 and 1981 seasons were used to meet financial obligations incurred during the 1979 season. This part of the Capital Project will replace these funds in order that the state can meet its firefighting responsibilities by providing necessary air operations and scheduled in-house training as well as training that can only be obtained outside such as the National Fire Training Center at Marana, Arizona.

III. Documentation of Estimated Capital Cost

Documentation of Capital Cost is explained in the following items:

- a. 1978 BLM fire bill: Finalized by audit and written mutual agreement as to its accuracy.
- b. 1979 BLM fire bill: BLM estimate contained in Bill No. B000443.
- c. Agricultural Revolving Loan Fund: Documentation for this cost can be found in state accounting records.
- d. Unpaid bills: This is a best estimate of possible claims, payment of CL-215 operational cost billing submitted earlier in error, and other costs which may have occurred on the Delta Barley Fire.
- e. Operations & Training: Air operations estimate based on previous years records. Training based on identified need to establish qualified individuals in fire overhead teams and additional manmonths to train seasonal firefighters prior to the fire season. Estimated cost of air operations is \$400,000 and identified training needs is \$300,000.

CATEGORY NRMEC

AGENCY Natural Resources

PROGRAM Lands & Water Management

PROJECT TITLE Firefighting Costs

35b PROPOSED PROJECT ANALYSIS

REVISED DATE _____

19

IV. Analysis of Estimated Impact on Operating Budget

There will be no impact on the Operating Budget. This Capital Project is to replace funds programmed for other activities but diverted to pay wages and other firefighting expenses after the Fire Suppression Fund was exhausted.

V. Identification of Alternatives Considered

The only alternatives for elements a, b, and c is to not pay the bills. The BLM would collect the money by withholding payments due to the state for mineral extraction or other purposes. The private parties would sue.

The alternative to providing air support and training is to not do so. Without air support, the response time on fires would be increased to a level that would certainly result in more large project fires and accompanying higher costs. Not providing training to seasonal firefighters and permanent overhead would result in severe safety hazards on the fire line and the possibility of either suits or large workmans compensation claims.

CONTINUATION FORM

CATEGORY NRMEC AGENCY Natural Resources PROGRAM Lands & Water Management

PROJECT TITLE Firefighting Costs

35 b

REVISED DATE _____

20

State of Alaska
 Dept. of Natural Resources
 Pouch M
 Juneau, AK 99801

Please detach top portion of
 this bill and return with
 remittance.

Amount of Payment \$ _____

Date	DESCRIPTION	Quantity	Unit Price		Amount	
			Cost	Per		
	Estimated 1979 Fire Suppression Costs				900,000.	00
<p>APPROVED FOR PAYMENT:</p> <p>_____ Southeastern District Office</p>					<p>RECEIVED JUN 26 1979 NATURAL RESOURCES - FISCAL</p>	
AMOUNT DUE THIS BILL,					\$ 900,000.00	

NOTE: A receipt will be issued for all cash remittances and for all other remittances when required by applicable procedure. Failure to
 give a receipt for cash payment should be promptly reported to the bureau or office shown above.

21

PROJECT TITLE Fire Suppression Fund		LOCATION(S)	AREA SERVED Statewide	ELECTION DISTRICT(S) All																	
OBJ. NO(S)	OPERATING BUDGET BRU(S)	NAME(S) Management and Protection	BUDGET COMPONENT NUMBERS 10-42-8-500	START DATE 1/80																	
PROJECT NARRATIVE		PROJECT TYPE		COMPLETION DATE Indefinite																	
I. Project Need Statement		<input type="checkbox"/> Building Construction (C) <input type="checkbox"/> Other Improvement (I) <input type="checkbox"/> Equipment (E) <input type="checkbox"/> Land (L) <input type="checkbox"/> Professional Services (P) <input checked="" type="checkbox"/> Other (O)		APPROPRIATION REQUEST																	
<p>AS 41.14.210 established the emergency fire suppression fund. The fund was totally exhausted by fires in the summer of 1979, principally the Delta Barley fire. This project will re-establish the fund at a \$5,000,000 initial level.</p> <p>This fund provides a source to pay the expenses of fighting expected wildland fires. The average annual cost of fire suppression activities statewide over the past 10 years has been about \$4,000,000, with the bulk of this being spent by the BLM. Transfer of land selected under the Statehood Act will transfer about two-thirds of this cost to the State. This transfer is programmed to proceed at the rate of 10-15 million acres per year for the next 5-7 years. Because of lack of conflicting claims, it is expected that the most expensive areas - in terms of fire suppression costs will be transferred first.</p>				<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1002</td><td>FED. RCPTS.</td><td></td></tr> <tr><td>1003</td><td>G/F MATCH</td><td></td></tr> <tr><td>1004</td><td>GEN. FUND</td><td>5,000,000</td></tr> <tr><td>1005</td><td>I/A RCPTS.</td><td></td></tr> <tr><td></td><td>G.O. BONDS</td><td></td></tr> <tr><td colspan="2">TOTAL</td><td>5,000,000</td></tr> </table>		1002	FED. RCPTS.		1003	G/F MATCH		1004	GEN. FUND	5,000,000	1005	I/A RCPTS.			G.O. BONDS		TOTAL
1002	FED. RCPTS.																				
1003	G/F MATCH																				
1004	GEN. FUND	5,000,000																			
1005	I/A RCPTS.																				
	G.O. BONDS																				
TOTAL		5,000,000																			
II. Project Description		PROJECT CHARACTERISTICS		GOVERNOR'S RECOMMENDATION																	
<p>The operating budget carries funds for initial attack of wildfires on state lands by state crews. For some fires, initial attack may result in suppression. However, in severe burning conditions or in remote areas where attack is delayed, the fire may develop into a "project fire." A project fire may burn for weeks or occasionally months, posing a severe hazard to property in the area and to the timber, watershed, wildlife, or other natural resources. The cost of containing such a fire can run into millions of dollars. This project will provide a continuing source of funding to pay the costs of fighting such fires.</p>		<input type="checkbox"/> Totally New Facility <input type="checkbox"/> Addition to Existing Facility <input type="checkbox"/> Renovation of Existing Facility <input type="checkbox"/> Major Maintenance or Repair <input type="checkbox"/> Supplement Previously Authorized Funds to Enable Completion <input type="checkbox"/> One of Several Phases <input type="checkbox"/> Major External Funding Source <input checked="" type="checkbox"/> Other		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>APPROVED</td> <td>DEFERRED</td> <td>DISAPPROVED</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		APPROVED	DEFERRED	DISAPPROVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
				APPROVED	DEFERRED	DISAPPROVED															
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																			
<p>NO YES SITE FEATURES n/a</p> <input type="checkbox"/> <input checked="" type="checkbox"/> Site Currently Owned? <input type="checkbox"/> <input checked="" type="checkbox"/> All Utilities Available? <input type="checkbox"/> <input checked="" type="checkbox"/> Access Already Available?		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1002</td><td>FED. RCPTS.</td><td></td></tr> <tr><td>1003</td><td>G/F MATCH</td><td></td></tr> <tr><td>1004</td><td>GEN. FUND</td><td>5,000.0</td></tr> <tr><td>1005</td><td>I/A RCPTS.</td><td></td></tr> <tr><td></td><td>G.O. BONDS</td><td></td></tr> <tr><td colspan="2">TOTAL</td><td>5,000.0</td></tr> </table>		1002	FED. RCPTS.		1003	G/F MATCH		1004	GEN. FUND	5,000.0	1005	I/A RCPTS.			G.O. BONDS		TOTAL		5,000.0
1002	FED. RCPTS.																				
1003	G/F MATCH																				
1004	GEN. FUND	5,000.0																			
1005	I/A RCPTS.																				
	G.O. BONDS																				
TOTAL		5,000.0																			
OPERATIONAL COST & NO. PERSONNEL		FIRST OPERATING YEAR	ULTIMATE ANNUAL YEAR	PREVIOUS YR-PRIORITY																	
INCREASE (DECREASE)																					
FUNDING SOURCE	FED. RCPTS.			AGENCY PRIORITY																	
	GEN. FUND																				
TOTAL ANNUAL OPERATIONAL COST				GOVERNOR'S PRIORITY																	
POSITION (FTE)																					

CATEGORY NRMEC AGENCY Natural Resources PROGRAM Land and Water Management

CAPITAL PROJECT EXPENDITURES (CASH FLOW)	TOTAL	BUDGET YEAR	BUDGET YEAR Plus 1	BUDGET YEAR Plus 2	BUDGET YEAR Plus 3	BUDGET YEAR Plus 4	REMAINING COST
Planning and Engineering							
Land							
Construction							
Equipment							
Administration and Other							
Total Annual Expenditure (Capital Cost)	varies						

CONTINUATION OF NARRATIVE

III. Documentation of Estimated Capital Cost

The amount of funding requested for this project reflects an estimate of the cost of one moderately severe fire year. State expenditures for firefighting in 1979 totalled about \$4,000,000. A \$5,000,000 fund will provide a 25% reserve over and above this amount. Annual appropriations will ordinarily be required to maintain the fund and occasional supplements will be needed when annual expenditures exceed \$5,000,000.

IV. Analysis of Estimate of Operational Expenses

Except for the fact that continuing expenditures from the fund will be necessary, this could be considered as being all operating expenditures. Money will be used to pay the salaries and overtime of emergency firefighters hired for a project fire, overtime for permanent employees involved in firefighting, transport of firefighters and equipment to and from a fire, rental of equipment including aircraft charter, and replacement of supplies expended on the fire including such items as food, hand tools, protective clothing, etc.

V. Identification of Alternatives Considered

One way or another, the State will bear the cost of wildfire fighting. If fires are not controlled the damage to natural resources can be incalculable. The State can also be sued for property damage incurred by private parties for it's failure to control a fire. Indirect losses due to smoke - such as airport and highway closures - can be substantial. The only alternatives considered are how to pay the costs of wildfires.

a. No Fund Provides: Loss of resource values would be unacceptably high in many cases. If fire threatened human life or property, it would be necessary to call for military and other assistance thereby incurring an unbudgeted cost.

b. Fund Annually by Supplemental Appropriation: This would create substantial hardship for EFF's who would

CATEGORY NRMEC AGENCY Natural Resources PROGRAM Land and Water Management

PROJECT TITLE Fire Suppression Fund

35b

PROPOSED PROJECT
ANALYSIS

REVISED
DATE _____

23



Official Business

Alaska State Legislature

Senate

Committee on Resources

March 11, 1980

Pouch V
State Capitol
Juneau, Alaska 99811

Meeting on alternatives to State purchase of CL 215's

Ted Smith- Department of Natural Resources
Representative Rick Halford
Wally Miller
Richard Rude- Flying Firemen, Inc.
Bob Schafley- Seattle PBY operator
Ken Ward- Alaska Air Carriers
Kent Loken- Channel Flying
Jim Wilson- Livingston Copters



Official Business

Alaska State Legislature

Senate

Committee on Resources

February 25, 1980

Pouch V
State Capitol
Juneau, Alaska 99811

TO: Senate Resource Committee Members
FROM: Jens Zehbe, Staff Member
REGARDING: Senate Bill 345

The sum of \$21,427,100 in supplemental appropriations is made to the Department of Natural Resources in the following amounts:

\$6,903,100- for cadastral land surveying
\$ 854,000- for statewide fire warehousing
\$5,067,000- for the purchase of 2 Canadair CL 215's
\$3,603,000- for firefighting costs
\$5,000,000- for the Fire Suppression Fund

Cadastral Land Surveying- \$6,903,100

With the creation of the Land Disposal Bank, the State is required to make available 100,000 acres of land for disposal each year. The statutes require that lands to be conveyed by the State must be surveyed prior to disposal. This supplemental appropriation would cover those surveying costs. The reason for a supplemental request have to do with weather restrictions, in that most surveying is done in the summer months. If it were to be included in FY 81 appropriations, valuable start-up time would be lost.

Purchase of (2) Canadair CL 215's (waterbombers)- \$5,067,000

The Bureau of Land Management (BLM) was previously contracted to handle the state's fire suppression program. It has declared it's intention to withdraw from this activity, leaving the state with the responsibility of protecting state and private lands. The department feels that purchase of the aircraft is necessary for the following reasons:

- a) To maintain a necessary level of fire protection.
- b) Normal contracting procedures for aircraft are not considered because of the financial savings over the long term.

c) The Department says that the number of contract aircraft suitable for airtanker work is dwindling. All available contract aircraft are modified military aircraft 30-40 years old and some are being deadlined each year.

d) The versatility of this aircraft allows for a broader use ie. the ability to drop water, smokejumpers, haul cargo and passengers.

e) With this versatility, it can be loaned to other agencies when not in use.

Statewide Fire Warehousing- \$854,000

Because of the BLM's withdrawal from fire suppression, the state must also take over this area of fire protection. This appropriation would provide the necessary supplies and equipment for state initial attack crews and to support project fires as they occur.

Fire Fighting Costs- \$3,603,000

This appropriation would cover 4 basic areas:

a) \$1,500,000 payment due to the BLM for costs incurred in fighting 1978 and 1979 wildland fires.

b) \$1,200,000 to repay a loan from the Agricultural Revolving Loan Fund to cover firefighting costs.

c) \$200,000 in any late or lost bills or potential claims from firefighting activities.

d) \$700,000 of 1980 and 1981 operation and maintenance money was used to cover costs in the 1979 fire season.

This appropriation would return that money to this fund.

Fire Suppression Fund- \$5,000,000

The fire suppression fund, as established by statute, was totally depleted by the 1979 fire season. This amount would re-establish the fund at a \$5,000,000 initial level. It will provide a source to pay for fighting expected wildland fires. It is an estimate to cover one moderately severe fire season. Based on a 1979 total cost of \$4,000,000, this amount would give the department a 25% reserve to handle additional costs. Annual appropriations will be required to maintain the fund and occasional supplements will be needed when annual expenditures exceed \$5,000,000.

The money will be used to pay the salaries and overtime of emergency firefighters and equipment to and from a fire, rental of equipment including aircraft charter, and replacement of supplies expended on the fire including such items as food, hand tools, protective clothing etc.

Fiscal note is included in the enclosed Project Analysis.

"An Act making supplemental and special capital appropriations to the Department of Natural Resources for land disposal surveying and forest fire protection projects for FY 80; and providing for an effective date."

Senate Bill 345- By the Rules Committee by Request of the Governor

The sume of \$21,427,100.00 in supplemental appropriations is made to the Department of Natural Resources in the following amounts.

\$6,903,100- for cadastral land surveying ✓
\$ 854,000- for statewide fire warehousing ✓
\$5,067,000- for the purchase of 2 Canadair CL 215's ✓
\$5,000,000- for the Fire Suppression Fund
\$3,603,000- for firefighting costs

All of the above are for capital projects and are valid for the life of the project. All unexpected balances will be carried into subsequent fiscal years.



Official Business

Alaska State Legislature

Senate

Committee on Resources

March 3, 1980

Pouch V
State Capitol
Juneau, Alaska 99811

TO: Resource Committee Members

FROM: Jens Zehbe, Staff Member

REGARDING: SB 345, Information requested by the Resources Committee on 2/27/80. Per Geoffrey Haynes, Deputy Commissioner, DNR.

This data is being supplied in response to the Senate Resources Committee request for information on cost, timing and products to be produced for the following tasks:

Project Tasks

Associated Costs

1) Identification and Verification of gravel deposits in the following areas:

a) FY 80 Land Disposals	\$ 150,000
b) FY 81 Land Disposals	\$ 150,000
c) All lands in the Land Bank	\$ 500,000
d) Along transportation corridors within above mapped areas	(Cost identified above)

2) Development of Intergrated Terrain Unit Mapping, as displayed to the committee for the FY 81 Disposal Program, to be expanded in the following areas:

a) FY 80 Land Disposals mapped at 1 inch=1 mile	\$ 300, 000
b) All lands in the Land Bank, estimated 3½ million acres, mapped at 1 inch=1 mile	\$1,050, 000
c, All State Lands, estimated '00 million acres mapped at 1 inch=4 miles	\$1,086,000

3) Establishment of a land Disposal Information Center in each Department of Natural Resources District Land Office. A Center where information developed for Land Disposal Areas (ie. NASA Photography, photo base maps, Integrated Terrain Unit Mapping products, reports, etc.) can be viewed by the general public to assist them in their selection of land.

\$ 234,000

We propose a Three Phase Program for the completion of the above tasks. The three phases are developed in parallel and each one interfaces to the other. However, each phase can be developed separately depending on the funding availability.

Detailed Discussion

The first phase of the program would be to utilize the Integrated Terrain Unit Mapping technique as shown the committee on 2/27/80. The Terrain Unit Mapping process used to assess the FY 81 Land Disposal areas involves the identification and mapping of genetically based landforms. Once these landforms are known, the suitability of each unit as a construction material source can be assessed. With a matrix and automation, production of a construction material (gravel) attribute map is then relatively simple. This level of reconnaissance information would then be field verified during the summer of 1980. The Landforms for FY 80 Land Disposal Areas would be interpreted, and verified in conjunction with the summer FY 81 Field Verification Program. Once all the information for the FY 80 and FY 81 Land Disposal Areas is collected it will be digitized utilizing the Integrated Terrain Unit Mapping technique for instant retrieval and manipulations. The first phase could start March 1, 1980, depending on availability of funds and be completed by January 1981. The total cost of the first phase is \$ 800,000 and includes positions for 3 people, the rest of the work would be contracted.

The second phase of the program would be a State Land Resources Inventory. This inventory program would utilize resources data that has already been collected, the NASA High Altitude Resource Photography and the Integrated Terrain Unit Mapping process to construct an automated resource inventory data file at a scale of 1=250,000. The resulting output from this program will identify land areas for:

- 1) Transportation corridors to disposal sites
- 2) Construction material sites (gravel)
- 3) Potential entry into nd Bank
- 4) Wetland investigation
- 5) Conflict areas that require detailed investigation
- 6) Priority geologic, soil, etc. study areas.

This phase of the Program could begin on July 1, 1980 and be completed by Apr'1 1, 1981, and will be useful in establishing priority areas for for FY 82 Land Disposals and future detailed data inventory work. This program would inventory 100,000,000 acres of State land and cost \$1,066,000 to complete. This would be a one time cost and includes positions for 2 people, the rest of the work would be contracted.

The third phase of the program would be the establishment of Land Disposal Information Centers within the Department of Natural Resources District Land Offices. These Centers

would contain copies of all information available from the Intergrated Terrain Unit Mapping programs on each Land Disposal Area Project and include all NASA Photography, photo base maps, reports etc. These Centers would be staffed by a Land Information Clerk and equipped with files, map racks, card indexes, microfilm readers, reproduction equipment (Blue line copier, existing copy machines in the District Offices etc.) and facilities to review and investigate the materials available. The program could start 90 days from funding availability. The cost of this phase would be initially \$234,000 and \$120,000 a year thereafter for Staff and materials.

Summary

Hopefully, the above addresses all of the committee's requested information. This program will provide a basic foundation for the Land Disposal Program, allow for better management of State lands and display all available resource data and information to the general public. We appreciate the opportunity to respond to the above requests and will be prepared to discuss any or all of the phases in detail, at the committee's convenience.

of ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ADMINISTRATION & MANAGEMENT

MEMORANDUM

TO: Jens Zehbe
Legislative Aide
Pouch V
Juneau, Alaska 99811

DATE: February 22, 1980

FILE NO:

TELEPHONE NO:

FROM: Tom Bergstrom
Director

SUBJECT: Water Bomber Aircraft

This is in response to your constituent inquiry regarding the selection of Canadair CL-215 water bombers for State firefighting use. The decision criteria in choosing the CL-215 over the PBY were (1) reliability, (2) versatility, and (3) cost effectiveness.

1. Reliability: The PBY is a World War II - vintage aircraft ranging in age from 35 to 45 years old. In the past two years there have been two fatal water-scooping accidents due to airframe failure involving the PBY. Mr. Bursiel suggests a use period of thirteen years in his letter, however, by that time most PBY's would be nearing 60 years old. Clearly, even the PBY cannot last forever and replacement aircraft will only become more expensive to acquire as time passes. It is also obvious that with aircraft of the PBY's age, substantial down-time must be anticipated.

The CL-215, on the other hand, is a new aircraft and our experience with it during last summer's demonstration project is that it is extremely reliable.

2. Versatility: The PBY carries water tanks in its cargo area when it is in a water bombing configuration and thus cannot be used to haul firefighters or cargo. Further, since PBY's would be on charter for firefighting, that is the only purpose they could be used for.

The CL-215 has a large cargo-passenger area and can be used as a multi-purpose aircraft with no configuration change. Since it would be owned year-round by the State it could be used for oil spill patrol and oil disposal (the tanks can carry dispersant), fisheries patrol, remote sensing, and disaster relief.

3. Cost Efficiency: Mr. Bursiel states that the operating costs per PBY are \$700 per day and \$600 per flying hour on a 90 day contract based on 200 flying hours. This is somewhat understated, since the fire season is now approximately 150 days and we anticipate 300 hours of operation per aircraft. These corrections would bring Mr. Bursiel's costs to \$285,000 per aircraft. Finally, both the standby costs and operating costs on a contract would be subject to inflation.

Our estimated operating costs for the CL-215, including amortization of debt, crew costs, insurance, fuel, and maintenance, are \$360,000 per aircraft. Actually, this figure is probably too high since the amortization cost is based on a highly conservative 20-year depreciation schedule.

February 22, 1980

There is no "enlargement of the bureaucracy," as Mr. Bursiel contends, since all flight operations and maintenance will be conducted by the Alaska Air National Guard. No State personnel will be added due to acquisition of the CL-215.

Finally, it should be pointed out that the State will realize a substantial capital gain by exercising its two CL-215 options. The option cost for the State is \$2.5 million per aircraft and the current cost of a CL-215 for the new production run is \$4.5 million per aircraft. The State will thus realize a gain of some \$4.0 million by purchasing the planes.

Wright Air Service, Inc.

Post Office Box 60142 • Fairbanks, Alaska 99706
Phone: 456-5502 or 452-7918

February 05, 1980

FEB 20 9 16 AM

Senator Bill Sumner
Alaska State Senate
Pouch V
State Capitol Building
Juneau, Alaska 99811

Dear Senator Sumner:

I understand that a supplemental appropriations bill has been introduced which would authorize the Department of Natural Resources to purchase two Canadair CL-215 water bombers at a cost of more than \$5 million.

It is my belief that the State of Alaska could obtain much better aerial fire suppression capabilities by putting bomber contracts out for bid to private industry rather than spending millions on state-owned aircraft that will be sitting idle for nine months out of every year. The \$5 million cost of the two aircraft seems completely ridiculous, particularly since it would only be the tip of the iceberg--it would still be necessary to pay pilots, ground crew, and administrative personnel all at additional cost.

A PBX amphibious water bomber on a 90 day contract would cost in the neighborhood of \$700/day and \$600/flying hour--this would include the pilots and the maintenance, everything except for the fuel. Assuming the aircraft flies 200 hours in a very busy season, the cost to the state would be \$63,000 for daily availability for 90 days plus \$120,000 for 200 hours of flying, or a total of \$183,000 for the year for the plane complete with a full crew to operate it. By dividing this cost into the \$5 million purchase price of the two Canadair aircraft, it can be determined that two PBX's could be operated for 13 years. An additional consideration is that should the aircraft be destroyed or damaged during the performance of the admittedly hazardous duties, the state would not have to pay for it--it would be the responsibilities of the contractor and his insurance company.

The state is wasting money and enlarging the bureaucracy by trying to operate it's own air force. Last summer I observed that the state was using it's own Beaver aircraft for fire detection patrols. I cannot imagine a worse choice for this mission. Not only is the Beaver painfully slow, it costs more just to operate it than it does to charter many models of single engine aircraft that are much faster. I only mention this example to emphasize my point that the state should leave the flying to those who can do it best and most economically.

Sincerely,



Robert P. Bursiel
President



February 20, 1980

Senator Bill Sumner
Alaska State Senate
Pouch "V"
State Capitol Building
Juneau, Alaska 99811

Dear Senator,

Senate bill 345 has a real sleeper in it that is bad.

"Sec. 3 the sum of \$5,067,000-for purchase of two
canadian CL-215's" aircraft.

That's really the down payment on a STATE AIR FORCE.
It will take many more millions forever to train crews and
maintain aircraft of that size. Then they will need a hanger,
then more office space, then a larger base then, more planes
to justify the hanger expense ect. ect. It will grow like
a cancer. We don't need it. Rely on the existing aviation
businesses in the state and at the same time you will be
helping support a vital transportation system throughout
the state and aiding a sagging economy.

With twenty years experience as a military pilot and base
commander I know what size monster you are growing if you
purchase those planes. Please don't.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Paul H. Breed', is written over a faint, larger version of the same signature.

Paul H. Breed
President

PB/cia



GOLDEN NORTH AIR SERVICE, INC.

MILE 131½ DENALI HWY. • P.O. BOX 9 • CANTWELL, ALASKA 99729 • Phone: (907) 768-2434

February 21, 1980

Senator Bill Sumner, Vice Chairman
Senate Resources and Finance Committee
Alaska State Senate Pouch "V"
Juneau, Alaska 99811

Dear Sir,

It has been brought to my attention that Senate Bill Number 345 has been introduced in the Legislature and has been referred to the Senate Resources and Finance Committee.

While we feel that it is in the public interest of Alaskans for the survey of State Lands, we do take issue with the appropriations allotted for "Fire Fighting" (\$8,603,000.00) and most expressively the \$5,607,000.00 for the purchase of two CL-215a.

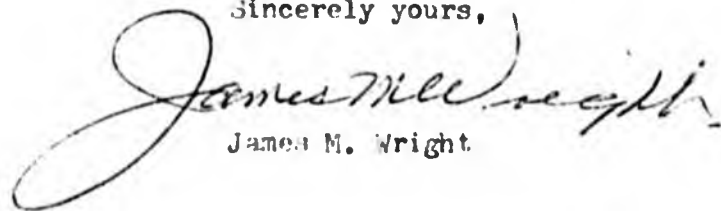
It is not our intent to allow Alaska to burn to the ground, however..... we do feel that the expenditures for firefighting are excessive in that the Federal Government owns, or at least claims most of our State and that many of the fires under concern by the department are started by agencies of the Federal Government (The Alaska Railroad) which effect State Lands. Let the Federal Government be responsible for their responsibilities and damages!

Foremost we do oppose the acquisition of the two Canadair CL-215a. There is sufficient aircraft available to the State by the State Licensed Air Taxes within the State to fulfill the needs of the Department of Natural Resources. We do not need the implementation of a State Air Force for the needs of state agencies. We already have a Federal Air Force in the "Office of Aircraft Services" which is in fact a Federal Air Taxi, which depletes revenues from existing State and Federally approved Air Taxi operators.

We have enough "bureaucracy", we only seek freedom and the right to Private enterpri.

We greatly appreciate your concern and responsibilities in this matter, and we hope that you will also consider the Alaskan citizen and business enterprise when you consider the merits of this Bill.

Sincerely yours,

A handwritten signature in cursive script that reads "James M. Wright". The signature is written in dark ink and is positioned to the left of the typed name.

James M. Wright

MEMORANDUM

State of Alaska

TO: Ted Smith
State Forester

DATE: August 6, 1979

FILE NO:

TELEPHONE NO:

FROM: Ray Settles *RS*
Asst. State Forest

SUBJECT: CL-215 Hourly Costs

Here is an up dated hourly cost computation for the CL-215. This update includes depreciation costs based upon work done by Frank Tannock, a fire suppression consultant done in April 1979 (copy attached).

Operating Costs:

1. Crew: 2 pilots (National Guard)	\$37.70/hr.
2. Fuel (consumption 168 U.S.gal/hr. @ \$0.75/gal)	126.00/hr.
3. Oil (3.6 U.S. gal/hr @ \$3.02/hr)	10.87/hr.
4. Maintenance labor (7.5 manhours/flight hr. @ \$20.00)	110.00/hr.
5. Maintenance materials	<u>75.00/hr.</u>
	<u>359.57</u>

Total hourly operating costs \$360.00

Overhead Costs:

1. Federal Use Tax	2.81/hr.
2. Insurance, Hull and Liability	<u>220.00/hr</u>
	<u>\$222.81</u>
Total Overhead Costs	<u>\$222.00/hr.</u>

Depreciation Costs CL-215 #1049 and 1065:

1. CL-215 #1049	
Purchase Price	\$2,200,000
Residual 10%	<u>220,000</u>
	1,980,000
Straight depreciation 15 years	132,000/yr.
Per month (8)	16,500/mo.
Per hour (300)	440/hr.
Per hour depreciation #1049	\$440/hr.

2. CL-215 #1065	
Purchase Price	\$2,500,000
Residual 10%	<u>250,000</u>
	2,250,000

Straight depreciation 15 years	\$150,000/yr.
Per month (8)	18,750/mo
Per hour (300)	500/hr.


Per hour depreciation #1065 \$500/hr.

Total Hourly Operating and Replacement Costs:

	<u>CL-215 #1049</u>	<u>CL-215 #1065</u>
Hourly Operating Costs	\$360.00	\$360.00
Hourly Overhead Costs	222.00	222.00
Depreciation (15 yrs.)	<u>440.00</u>	<u>500.00</u>
 Total hourly costs for operating & replacement	 <u>\$1,022.00</u>	 <u>\$1,082.00</u>

These costs are based on a 15 year depreciation period and does not consider the useful life of the aircraft. Consider aircraft used today as aerial tankers, both the PBYS and C-119s were built in the 1940s, in excess of 30 years use. We can expect the CL-215 will last as long or longer since it was specifically designed for the use of firefighting and bush flying.

Richard L. (Bud) Rude
President



MISTY AIR

213 Boeing Field Terminal • Seattle, WA 98108 • (206) 763-1401

*Contact In
Finance*

ROBERT P. SCHLAEFLI
AVIATION CONTRACTOR

306-876-0410

623 DWIGHT STREET
PORT ORCHARD, WA. 98366

MEMORANDUM

TO: Ted Smith

DATE: February 29, 1980

FILE NO.

TELEPHONE NO.

FROM: Paul Maki

SUBJECT: CL-215

Sig Larsen called me this afternoon. He discovered the following information since our meeting with Representative Halford yesterday.

The standard Consolidated PBY is certified to operate at 30,500 pounds gross weight. With the addition of R-2600 engines the Super PBY is certified to operate in the United States at 32,000 pounds gross weight.

Sig said that no PBY is certified in Canada to operate with more than 800 gallons of water (the tank capacity of the standard PBY). He said the Canadian Department of Transportation will not certify it for more than 800 gallons because they feel the stresses are in excess of the wing's structural capability.

Sig said Flying Firemen operates one Super PBY in Canada, but it has a modification of its tanking system to limit its capacity to 800 gallons. The other 2 Super PBY's in Canada are not used for firefighting.

Public Aircraft operating in Alaska are not limited by the FAA or DOT and do carry up to 1,500 gals of water

from Dick

Richard Rude, Flying Firemen, Inc.

Experience: 17 years Captain Northern Consolidated Airlines
Owner: Flying Firemen of Victoria, B.C.
Operates 10 PBY's - Has 2 Super PBY - Scoop - Tankers
available for this season and several other PBY tankers.

First involved in CL 215 evaluations 8-9 years ago.

CL 215 Evaluation: "Make work projects for Quebec Government"

Single Stephull drags tail on T.O. A-26/B 26 engine cowl and exhaust system. Tires especially at nose too small for other than paved or well prepared landing fields.

Only Canadian province to buy other than Quebec was Manitoba - after 400 hours inspection and necessary maintenance cost \$43,000.

High operating cost, high insurance, high initial cost.

Mentioned Alberta study and French government operating cost figure of \$8,000/hour plus.

Bob Schafley, Seattle PBY operator

Experience: PBY - Same water capacity and scoop time with latest mods almost same cruise speed with big engines - better rough field landing capability cost approximate \$500,000 with large engines, tanks late scoops all mods and in overhauled and work ready condition.

CL 215 Evaluation: CL 215 demonstrated all over Canada and U.S. for several years only one in Canadian service outside of Quebec. Others in S. America on subsidized sale and in France and Spain for political reasons.

Alberta study and project produced operating cost estimate of \$8,227/hour. French government published cost \$8,000/hour.

Canada operates 32 PBY's.

Costs: *CL-215 over PBY*
Insurance on \$2.5 million at 7% =
Depreciation on \$2.5 million $\frac{1}{7}$ \$175,000/year
High direct operating cost

Current bids for Alaskan operations

Super PBY with high capacity scoops

Anchorage \$1200 daily plus \$450/hour plus \$145 fuel

Fairbanks \$1050 daily plus \$450/hour plus \$150 fuel

Bob Schafley - cont.

CL 215 Evaluation - cont.

Last year they operated 2 aircraft on 90-day contracts in Alaska for 180 AC/days. Had 2.5 AC/days downtime while CL 215 had 11 days downtime.

PBY - Availability approximately 32 operating in Canada. Several in South 48, several in Alaska. Many in South America and world wide.

After considering the CL 215 and their costs, the Saskatchewan government just last month bought 3 PBY's.

Avalon Aviation, Red Deer, Alberta

Experience: Operates 6 or 7 PBY's in fire bombing service.

Chief mechanic says they couldn't afford to operate CL 215 even if they had them -- too much maintenance and too many AD notes.

MISTY
AIR

213 Boeing Field Terminal • Seattle, WA 98108 • (206) 763-1491

February 27, 1980

3/4
for DNR Fire Suppression
file re CL-215
KWH

Mr. Rick Halford
ALASKA STATE LEGISLATURE
Pouch V
Juneau, Alaska 99811

Dear Mr. Halford:

Pursuant to our telephone conversation this date, this letter will confirm our discussion on aerial application of fire suppressants.

To this date, we have found the 8-year old CL-215 aircraft totally economically unfeasible for replacement of our PBY fleet. The CL-215 is so costly to operate that the Province of Quebec (second largest operator of CL-215's) is considering overhaul and putting the PBY back in the forefront as its main tool.

Some of the factors which lead to this condition are the use of an antiquated C-series 2800 engine which Canadair quotes for \$65,000 each with a life of 800 hours, giving a per engine cost of over \$80 per hour. This compares to the 1200-hour life of the -1830 or -2600 engine at a cost of \$20,000 each, relating a cost of less than \$20 per hour or 400% less.

However, engines are only a small portion of the cost. The aircraft has such a short production run, less than 50 total for an 8 year period, that there are virtually no spare parts, and the delivery time for spares could be beyond tolerances. We point out that in one case, an 800-hour inspection on such an aircraft exceeded \$40,000. In a study performed by the various provinces in Canada, the French Government, the oldest and largest operator of the CL-215, related a per hour cost of operation in excess of \$8000 per flight hour. These figures would also be 600% higher than comparable figures for the PBY operation.

Although an older aircraft, a sufficient number of PBY aircraft and parts were manufactured to assure the operating existence of this aircraft for the next 20 years, in our estimation.

At this time, in our limited field of vision, we know of 4 to 6 water bomber aircraft available for contract in the 1980 season; hence, no shortage of aircraft. This does not mean, however, that one can order an aircraft off the shelf when needed, as much preparation for support, crew training, and locating is necessary to be ready for a season.

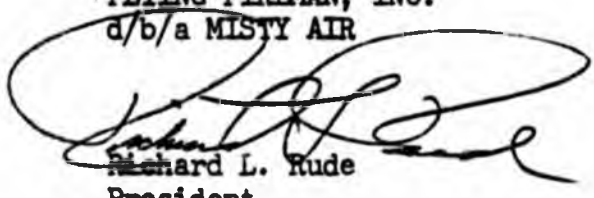
Mr. Rick Halford
February 27, 1980
Page 2

I have been involved with water scooping aircraft since its inception. Having a broad base as an operator and pilot, it is, therefore, my opinion that the job of forest protection can be accomplished more economically by the PBV than by purchasing an aircraft such as the CL-215, which has had an 8-year history of being unsaleable and totally uneconomical.

My apologies for the bluntness of this letter, but, unfortunately there is no other way of approaching the subject. If I can be of further assistance, please do not hesitate to contact me.

Very sincerely,

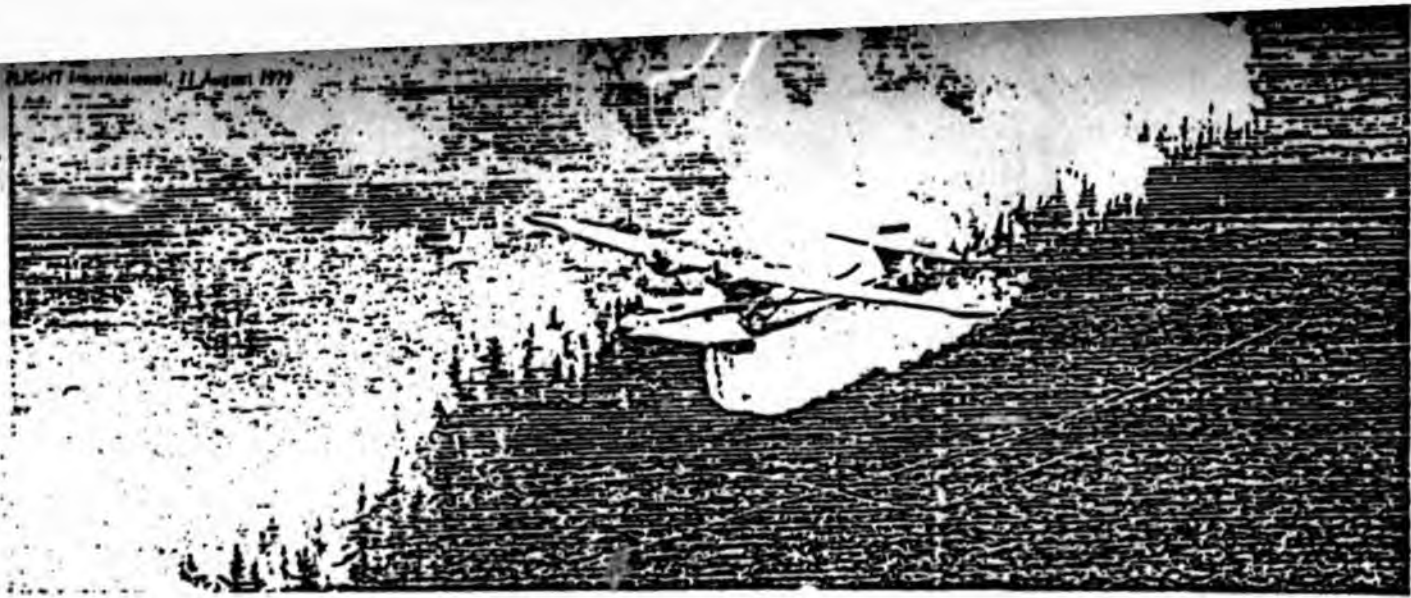
FLYING FIREMAN, INC.
d/b/a MISTY AIR



Richard L. Rude
President

RLR:cw

Encl.



The fighting firemen of British Columbia

by CLIFF BARNETT

NO country recognises better than Canada the need for effective anti-incendiary action by aerial application—known more poetically as "water bombing". With literally hundreds of thousands of square miles of forest, Canada's human and wildlife, her environment and her investment are over vulnerable to fire.

Flying Firemen is based on Vancouver Island's Victoria International Airport in British Columbia, Canada's most westerly and wooded province. Their fleet of now middle-aged Catalina/PBY/Cansos are very active as water bombers in the constant fight to reduce fire hazard across the country. In contrast, only the Province of Quebec so far has bought home-grown Canadair CL-215s.

The eight Cansos and three pressurised Cessna 337 "Bird Dog" control aircraft (Flying Firemen's description, and not to be confused with Cessna L-19/O-1a) operate during the three high-fire-risk summer months as far away from base as the eastern limits of the Province of Ontario.

None of the eight aircraft is standard. Two are Super Cansos, powered by Wright R2600s and capable of carrying a 1,200gal water load; and the other six, with P&W R1830s, carry 400gal less. Some aircraft have Coovair rounded vertical stabilisers, and some the eight-top Steward-Davis modification. Some have the

3ft-longer spray-reducing Clipper Bow, while others still retain the waist gunners' Busters, and some have either toothpick or paddle propellers. But all have 4ft-mouth water scoops which can be extended some 15ft below the hull, just behind the step, and instant-opening water-drop doors on the ventral surface.

Each aircraft, crewed by two pilots, will fly some 200 revenue-earning



hours during the summer, and a utilisation of more than 140 water pickups in a day is not unusual. Refilling the water tanks calls for a slow approach over the stillest nearby water, then a 15sec scooping run at 60kt. Load drop will depend on terrain, wind and fire intensity and may be a two-door salvo or a one-door-at-a-time sting.

Reconnaissance and control are the responsibility of the 337 pilot and his

Forestry Service passenger, who is in radio contact with the Fire Master on the ground at the fire site. The choice of the Cessna was dictated by its centre-line twin-engine reliability; pressurisation, for Rockies operations; and for its eventual high resale value.

Despite being based in BC, Flying Firemen is not under contract to the provincial government and therefore spend most of the fire season in Manitoba or Alberta. Two semi-permanent bases are set up at high level in N Alberta some 4 miles north-west of Edmonton in the Footmer Lake Forest area; and at Slave Lake, roughly midway between high level and Edmonton. Flying Firemen and their Cansos are not the only operators on Vancouver Island. Private enterprises include the consortium of five forestry companies which operates six-engined Martin Mars south from Sproat Lake.

Pilot recruiting is no problem. Rich in coastline and lakes, BC abounds in experienced float-trained commercial bush pilots, both male and female and all keen to fly. Furthermore, the attraction of wealthy, rugged "Beautiful BC" is always a lure for pilots from the colder eastern and Prairie provinces.

If you have the experience and feel that water bombing is your thing, then go west, young man!

Top Canso in full flood as one of the fleet makes an intense water drop ahead of a fire sweeping through the pine forest. Below float-equipped Heli-Couriers put their Stal capability in good effect flying off British Columbian waterways. They provide a general utility service in the area



7/30/79

Advantages of CL-215s Over PBYs and C-119s

There are a number of Air Tankers in operation today. These aircraft are of two categories, amphibious water scoopers and land based air tankers. The three most common aircraft used in Alaska today are the CL-215, PBY, and C-119. A comparison of their firefighting productivity is attached.

A firefighting aircraft is an initial attack vehicle and must be able to:

1. get to the fire quickly,
2. drop its load accurately,
3. produce the most effective drop pattern on the ground,
4. attack the fire frequently,
5. be cost effective.

The productivity comparison assumes a) all aircraft operate from the same base and start at the same time, b) the CL-215 and PBY pick up their water at a location 13 miles from the fire, c) the C-119 as a land based aircraft was retardant loaded from base.

As can be seen on the chart there is little difference on the first drop. However during a normal four hour operation there is considerable difference in the number of drops. Based on this example it would take two PBYs to equal the productivity of one CL-215.