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CIVIL AERONAUTICS AUTHORITY

Washington

NOTE NO. 9

PROPOSED PROGRAM

for the

DEVELOPMENT OF ALASKAN AIRPORTS

Airport Section,  
Private Flying and Planning Division  
October 31, 1938

TO: THE MEMBERS OF THE CIVIL AERONAUTICS AUTHORITY  
SUBJECT: PROPOSED ALASKAN AIRPORT DEVELOPMENT PROGRAM  
PREPARED BY: AIRPORT SECTION, PRIVATE FLYING AND PLANNING  
DIVISION

#### SUMMARY

In August 1935 the Airport Marking and Mapping Section of the Bureau of Air Commerce undertook to survey the existing airport facilities in the Territory of Alaska, with a view to determining the extent of improvements which would be required in order to bring these and additional facilities up to the minimum standard of safety requirements for scheduled airline operations. At that time it was considered feasible to use emergency relief funds to accomplish the work. Recommendations made then were designed to conform to the relief requirements necessary to secure WPA participation.

In the month of October 1935, Governor John W. Troy of Alaska submitted an application to the Works Progress Administration for funds totaling \$2,900,000, for the construction and improvement of air fields on existing mail routes, commercial routes and in outlying areas of importance, within the Territory of Alaska. The improvements contemplated in the Works Progress program did not include paving or extensive grading operations, but were designed primarily to provide minimum facilities for light single-engined aircraft.

During 1936, several reports and surveys were submitted, both to the Bureau of Air Commerce and the Works Progress Administration for work on Alaskan air fields.

In May of 1938, at the request of the Department of Interior, the Bureau of Air Commerce prepared a report, based on a thorough examination of previous reports, cost estimates of construction, and comparative data furnished by the Alaskan Road Commission, the Army Air Corps, the Coast Guard, and the Coast and Geodetic Survey, for the estimated cost of constructing 106 airports in the Territory, designed to serve modern high speed multi-engined transport aircraft. It was estimated at that time that these facilities would cost in the neighborhood of \$14,297,988. With minor additions and adjustments, it is believed by this committee that this will be the cost of constructing the minimum facilities necessary for operations in Alaska proposed to be inaugurated in the near future.

#### INTRODUCTION

At a meeting held on October 12 at the request of the Civil Aeronautics Authority, representatives of the U. S. Army Air Corps; U. S. Navy Department, Bureau of Aeronautics; U. S. Coast Guard, Aviation Division; Department of Interior, Division of Territories; and representatives of the Civil Aeronautics Authority, met to discuss plans for developing a system of airports in the Territory of Alaska. The consensus of all attending

representatives was that the Territory of Alaska was more dependent upon aircraft as a means of transportation than any locality within the continental United States. This committee feels that the military importance of these airports should in itself be sufficient to justify Federal participation in the cost of construction. It was unanimously agreed that the Civil Aeronautics Authority would not only be justified in requesting the Bureau of the Budget to appropriate the funds necessary, but would in no small measure effect an irremedial deterrent to the proper development of air transportation and defense in the Alaskan Territory if it failed or neglected to make such a recommendation at this time. It is understood by the committee that the foreign policy of this Government previously prevented airport development in the Territory, but that this foreign policy is no longer in effect and can be entirely disregarded. The committee at first considered ways and means of obtaining funds from Federal Government for the construction of a land and seaplane base at Ketchikan, which would be the first unit in the Alaskan Airport Program. After much discussion as to the relative merits of such a unit, it was considered by all present that the Authority should request the Bureau of the Budget to provide funds by special appropriation for the entire Alaskan Airport Development Program instead.

#### JUSTIFICATION

The Territory of Alaska represents the last undeveloped area of vast natural resources remaining in the possession of the

United States. As is shown by historical records, the development of all our other territories has taken place only after satisfactory means of transportation has been provided. Because the physical characteristics of the Territory make prohibitive the cost of constructing adequate roads or railways, or of improving waterways, air transportation has been found to be the only reliable means of transferring mail, cargo and passengers from one locality to another. Up to and including the present time this transfer of passenger and mail by air has been made extremely hazardous by the lack of safe and adequate ground facilities. Airplane service has been limited to aircraft whose performance is such that it can be operated into and out of small areas. Air transportation, though somewhat costly because of the limited loads which can be transported at one time, is even now, less expensive than transportation by dog team or river steamer into the interior. If it were possible to inaugurate a scheduled service using high speed multi-engined aircraft capable of carrying mail, express and passengers in sufficient quantity and numbers, air transportation could be the implement for development of the Territory to the fullest extent. With transportation facilitated in this way, new capital and industries should follow rapidly, since much of the coast line of the Territory is open the year around, having a climate comparable to that of Seattle and Vancouver.

The vast uninhabited areas now completely unprotected, are at present inaccessible to both motor and rail transportation

services. To establish lines of communication and transportation in time of necessity would be practically impossible. Alaska, unprotected as it is, invites foreign attention as a mobilization base. Proximity of the Territory to Siberia provides easy access to its shores from a foreign nation, where, should it become once established, it would be practically invulnerable to counter attack by this country.

#### CONCLUSION AND RECOMMENDATION

This representative committee requests that the members of the Civil Aeronautics Authority exert every effort toward securing the provision of adequate funds necessary for developing the Alaskan airport system. It is recommended that the Authority call into conference immediately on receipt of this communication the Secretaries of War, Navy, Treasury and Interior, in order to obtain their support for the recommendation to be submitted to the Bureau of the Budget. For the information of the Authority, this committee has caused to be prepared for you a detailed cost estimate of construction of 106 air fields in the Territory of Alaska.

This program is designed to provide terminal facilities, auxiliary, intermediate, and emergency airports for the Territory of Alaska, and to provide facilities for the accommodation of scheduled airline transportation, as well as freight and express carriers. The program is especially designed to provide air transportation facilities to regions otherwise inaccessible.

The following airports are proposed: Nine major terminals at an estimated cost of \$6,563,133.00; 21 intermediate or secondary airports at an estimated cost of \$3,525,000.46; 29 intermediate or emergency fields to serve other territory are believed necessary at an estimated cost of \$1,814,921.87; and finally 47 interior fields in more inaccessible regions at a cost of \$5,339,921.00.

Owing to the remoteness of the areas where airports are to be constructed, construction costs will be normally 50% to 100% higher than similar construction in the United States. All materials have to be brought in by airplane, dog team, or river barges. No lumber is available, except in the coastal areas, and first class lumber must be shipped from Seattle.

Figures on these estimates include all transportation costs, cost of surveys, establishment of camps, and supply depots.

It is recommended that the figures quoted here be regarded as a preliminary estimate, based on all information available from previous general surveys. They should not be regarded as a detailed estimated cost since no adequate survey has ever been made of the areas involved.

A map, showing the locations of the proposed airports, is attached, which indicates by various symbols the types of construction and the class of facility that are regarded as necessary to meet the needs of civil and military aeronautics in the Territory of Alaska. By referring to the legend on the map, it can readily

be seen that three general classifications have been given consideration with the addition of seaplane facilities proposed at various airport locations.

While the location of many of the emergency airports appears in close proximity on the map, it must be remembered that distances in Alaska are negotiated with difficulty except by air transport. In many cases these emergency fields constitute the only means of transportation from one settlement to another during certain periods of the year.

It is felt by the representatives of the Committee that to serve the needs of air transport in Alaska, airports must be located in nearly every community requiring transportation facilities, since other means of transport are either entirely lacking or severely handicapped.

The attached map, showing the location and class of facilities required in the Territory, has been reviewed by the military services as well as the civil agencies, and all concur in that the proposed development as outlined is a necessity to air transport and national defense.



ALASKAN AIRPORT DEVELOPMENT

PRIMARY FIELDS

TOTAL CONSTRUCTION COSTS

1.	ANCHORAGE . . . . .	.\$ 691,659.00
2.	CORDOVA . . . . .	820,331.00
3.	FAIRBANKS . . . . .	689,321.00
4.	JUNEAU . . . . .	977,144.00
5.	KETCHIKAN . . . . .	1,126,400.00
6.	McGRATH . . . . .	469,837.00
7.	NOME . . . . .	508,838.00
8.	RUEY . . . . .	474,732.00
9.	TANANA CROSSING . . . . .	804,821.00
		<hr/>
TOTAL COST . . . . .		.\$ 6,563,133.00

ANCHORAGE, ALASKA

EXISTING - 2 landing strips 400' x 200' - 400' x 2260'  
LOCATION - Lat. 61°11' N. Long. 149°52' W.  
PROPOSED - For improvement on same site.  
2 landing strips 500' x 4000'  
Surfacing 2 runways 150' x 4000'

CONST. COSTS -	Clearing & Grubbing	\$ 16,256.00
	Grading	325,000.00
	Surfacing	170,000.00
	Drainage	12,000.00
	Lighting	12,625.00
	Terminal Building	1,250.00
	Hanger & Servicing	50,000.00
	Seaplane Ramp & Float	41,650.00
		<u>628,781.00</u>
	Engineering	62,878.00
	Total Cost .....	\$ 691,659.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Terminal facilities provided.

CORDOVA, ALASKA

EXISTING - 1 landing strip 200' x 2600'  
LOCATION - Lat. 60°32' N. Long. 145°43' W.  
PROPOSED - 1 landing strip 500' x 4000'  
Surfacing 1 runway 150' x 4000'

CONST. COSTS -	Clearing & grubbing	\$	45,256.00
& other	Grading		625,000.00
Improvements	Surfacing		None
	Drainage		None
	Lighting		12,000.00
	Terminal Building		6,000.00
	Hangar & Servicing		7,500.00
	Seaplane Ramp & Float		50,000.00
			<u>745,756.00</u>
	Engineering		<u>74,575.00</u>
	Total Cost .....	\$	820,331.00

REMARKS:

Construction costs include transportation of men, materials, equipment, camp and supplies. Terminal facilities and gas storage.

FAIRBANKS, ALASKA

EXISTING - 1 runway 400' x 2100' 400' x 1900'  
LOCATION - Lat. 64°50' N. Long. 147°42' W.  
PROPOSED - On same site  
3 landing strips 500' x 5000'  
Surfacing two runways 150' x 5000'

CONST. COSTS -	Clearing & Grubbing	\$ 10,000.00
	Grading	225,000.00
	Surfacing	260,000.00
	Drainage	34,156.00
	Lighting	12,500.00
	Terminal Building	10,000.00
	Hangar 180' x 180'	75,000.00
	Seaplane Ramp & Float	None
		<hr/> 326,656.00
	Engineering	<hr/> 62,665.00
	Total Cost .....	\$ 689,321.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Main air terminal of Alaska - facilities for scheduled operations day and night.

JUNEAU, ALASKA

EXISTING - 200' x 2000'  
LOCATION - Lat. 58°13' N. Long. 134°25' W.  
PROPOSED - 4-way field (2) 500' x 4000'  
Surfacing (2) 150' x 4000'  
on original site.

CONST. COSTS -	Clearing & Grubbing	
	Grading	\$ 503,763.00
	Surfacing	233,050.00
	Drainage	26,000.00
	Lighting	12,000.00
	Terminal Building	7,500.00
	Hangar 200' x 200'	75,000.00
	Scaplane Ramp & Float	<u>31,000.00</u>
		888,313.00
	Engineering	<u>88,831.00</u>
	Total Cost .....	\$ 977,144.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Terminal facilities to serve 40 passenger transport.

KETCHIKAN, ALASKA

EXISTING - None

LOCATION - North end Pennock Island opposite town.

PROPOSED - 2 landing strips 500' x 5000'  
Surfacing 1 runway 150' x 5000'

  

CONST. COSTS -	Clearing & Grubbing	\$ 90,000.00
	Grading	600,000.00
	Surfacing	170,000.00
	Drainage	10,000.00
	Lighting	12,000.00
	Terminal Building	5,000.00
	Hangar & Servicing	102,000.00
	Seaplane Ramp & Float	35,000.00
		<u>1,024,000.00</u>
	Engineering	<u>102,400.00</u>
	Total Cost .....	\$ 1,126,400.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Terminal facilities provided for 40 passenger transport.

MCGRATH, ALASKA

EXISTING - 2 landing strips 250' x 1400' 350' x 800'  
LOCATION - Lat. 62°58' N. Long. 155°36' W.  
PROPOSED - 2 landing strips 500' x 4000'  
Surface SE-NW Runway 150' x 4000'

CONST. COSTS -	Clearing & Grubbing	\$ 14,000.00
	Grading	225,000.00
	Surfacing	90,125.00
	Drainage	56,000.00
	Lighting	12,000.00
	Terminal Building	5,000.00
	Hanger & Service. Gas Storage	10,000.00
	Seaplane Ramp & Float	<u>15,000.00</u>
		427,125.00
	Engineering	<u>42,712.00</u>
	Total Cost .....	\$ 469,837.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Terminal facilities provided.

NOME, ALASKA

EXISTING - 1 landing strip 200' x 300'  
LOCATION - Lat. 64°30' N. Long. 165°24' W.  
PROPOSED - 2 landing strips 500' x 4000'  
Surfacing 2 runways - 150' x 4000'

CONST. COSTS -	Clearing & Grubbing	\$ 5,000.00
	Grading	110,000.00
	Surfacing	175,000.00
	Drainage	50,126.00
	Lighting	12,000.00
	Terminal Building	10,500.00
	Hangar & Servicing	100,000.00
	Seaplane Ramp & Float	None
		* 462,626.00
	Engineering	<u>46,262.00</u>
	Total Cost .....	\$508,888.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Terminal facilities provided - include servicing.



RUEY, ALASKA

EXISTING - 2 landing strips 350' x 1500' 500' x 1100'  
LOCATION - Lat. 64°43' N. Long. 155°29' W.  
PROPOSED - 2 landing strips 500' x 4000'  
Surfacing 2 runways 150' x 4000'  
same site.

CONST. COSTS -	Clearing & Grubbing	\$ 14,450.00
	Grading	125,000.00
	Surfacing	165,000.00
	Drainage	55,125.00
	Lighting	12,000.00
	Terminal	10,000.00
	Hangar	50,000.00
	Seaplane Ramp & Float	None
		<u>431,575.00</u>
	Engineering	<u>43,157.00</u>
	Total Cost .....	\$ 474,732.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Terminal facilities & service provided.

TANANA CROSSING, ALASKA

EXISTING - 1 landing strip 300' x 1400'

LOCATION - Lat. 65°10' N. Long. 152°0' W.

PROPOSED - New site. 2 landing strips 500' x 4000'  
Surfacing 2 runways 150' x 4000'

  

CONST. COSTS -	Clearing & Grubbing	\$ 26,156.00
	Grading	475,000.00
	Surfacing	150,000.00
	Drainage	26,250.00
	Lighting	12,000.00
	Terminal Building	7,250.00
	Hangar & Servicing	35,000.00
	Seaplane Ramp & Float	None
		<u>731,656.00</u>
	Engineering	<u>73,165.00</u>
	Total Cost .....	\$ 804,821.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Terminal facilities provided.

ALASKAN AIRPORT DEVELOPMENT

SECONDARY FIELDS

TOTAL CONSTRUCTION COSTS

1.	Bethel .....	\$	288,601.00
2.	Big Delta .....		92,146.00
3.	Deering .....		115,326.00
4.	Dillingham .....		79,425.00
5.	Donnelly .....		85,981.00
6.	Flat .....		62,000.00
7.	Golofnin .....		74,800.00
8.	Gulkana .....		79,146.00
9.	Healy .....		113,832.00
10.	Kodiak .....		85,195.00
11.	Kotzebue .....		71,561.00
12.	Koyuk .....		101,388.00
13.	Nulato .....		95,260.00
14.	Seward .....		144,705.00
15.	Skegway .....		63,350.00
16.	Talkeetna .....		91,621.00
17.	Tanana .....		120,322.00
18.	Unalakleet .....		227,975.00
19.	Valdez .....		125,470.00
20.	Wiseman .....		188,194.00
21.	Yakutat .....		85,635.00

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TOTAL COST ..... \$ 2,394,933.00

BETHEL, ALASKA

EXISTING -	None	
LOCATION -	Site. Lat. 60°50' N. Long. 161°55' W.	
PROPOSED -	2 landing strips 350' x 3000'	
CONST. COSTS -	Clearing & Grubbing	\$ 36,000.00
	Grading	175,365.00
	Surfacing	None
	Drainage	35,000.00
	Lighting	12,500.00
	Terminal Building	3,500.00
	Hangar & Service	None
	Seaplane Ramp & Float	None
		<u>262,365.00</u>
	Engineering	<u>26,236.00</u>
		\$ 288,601.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

BIG DELTA, ALASKA

EXISTING - 1 landing strip 150' x 1500'  
LOCATION - Lat. 64°09' N. Long. 145°50' W.  
PROPOSED - 1 landing strip 500' x 3000'  
Gravel surface

CONST. COSTS -	Clearing & Grubbing	\$	20,156.00
	Grading		17,220.00
	Surfacing		28,000.00
	Drainage		5,320.00
	Lighting		6,500.00
	Terminal Building		None
	Hangar & Service		None
	Seaplane Ramp & Float		<u>7,500.00</u>
			84,696.00
	Engineering		<u>8,450.00</u>
	Total Cost .....	\$	92,146.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate - Secondary Field.

DEERING, ALASKA

EXISTING - None

LOCATION - Lat. 66°05' Long. 162°49'

PROPOSED - 2 landing strips 500' x 3000'  
Gravel surface

CONST. COSTS -	Clearing & Grubbing	\$ 6,276.00
	Grading	32,048.00
	Surfacing	48,252.00
	Drainage	7,500.00
	Lighting	12,050.00
	Terminal Building	None
	Hanger & Service	None
	Seaplane Ramp & Float	None
		<u>106,126.00</u>
	Engineering	<u>9,200.00</u>
	Total Cost .....	\$ 115,326.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field. Secondary.

DILLINGHAM, ALASKA

EXISTING - None

LOCATION - Site Lat. 59°0' N. Long. 158°37' W.

PROPOSED - 2 landing strips 500' x 3000'  
Gravel Surfacing

  

CONST. COSTS -	Clearing & Grubbing	\$ 5,100.00
	Grading	21,000.00
	Surfacing	20,605.00
	Drainage	11,000.00
	Lighting	12,000.00
	Terminal Building	2,500.00
	Hangar & Service	None
	Seaplane Facilities	None
		<u>72,205.00</u>
	Engineering	<u>7,220.00</u>
	Total Cost .....	\$ 79,425.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

DONNELLY, ALASKA

EXISTING - 1 landing strip 300' x 1200'  
LOCATION - Lat. 63°40' N. Long. 145°55' W.  
PROPOSED - 2 landing strips 500' x 3000'  
Gravel Surfacing

CONST. COSTS -	Clearing & Grubbing	\$ 5,027.00
	Grading	38,256.00
	Surfacing	22,652.00
	Drainage	None
	Lighting	12,046.00
	Terminal Building	None
	Seaplane Ramp & Float	None
		<u>77,981.00</u>
	Engineering	<u>8,000.00</u>
	Total Cost .....	\$ 85,981.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.



FLAT, ALASKA

EXISTING - 1 landing strip 300' x 1600'  
LOCATION - Lat. 62°25' N. Long. 158°00' W.  
PROPOSED - 1 landing strip 500' x 3000'  
Gravel Surface

CONST. COSTS -	Clearing & Grubbing	None
	Grading & Dredging	\$ 25,000.00
	Surfacing	25,000.00
	Drainage	Natural
	Lighting	6,000.00
	Terminal Building	None
	Hangar & Service	None
	Seaplane Ramp & Float	None
		<u>56,000.00</u>
	Engineering	<u>6,000.00</u>
	Total Cost .....	\$ 62,000.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

GOLOFNIN, ALASKA

EXISTING - 100' x 1700' landing strip  
LOCATION - Lat. 64°33' N. Long 163°00' W.  
PROPOSED - 1 landing strip 500' x 3000'  
Gravel Surface

CONST. COSTS -	Clearing & Grubbing	\$ 2,500.00
	Grading	26,000.00
	Surfacing	50,000.00
	Drainage	Natural
	Lighting	5,800.00
	Terminal Bldg. (Cabin)	3,500.00
	Hangar & Service	None
	Seaplane Ramp & Float	None
		<u>67,800.00</u>
	Engineering & Contingencies	<u>7,000.00</u>
	Total Cost .....	\$ 74,800.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

GULKANA, ALASKA

EXISTING - None

LOCATION - Site. Lat. 62°33' N. Long. 145°45' W.

PROPOSED - 1 landing strip 500' x 3000'

  

CONST. COSTS -	Clearing & Grubbing	\$ 5,200.00
	Grading	32,046.00
	Surfacing	24,200.00
	Drainage (Open ditch)	6,000.00
	Lighting	5,200.00
	Terminal Building	None
	Hangar & Service	None
	Seaplane Ramp & Float	None
		<u>72,646.00</u>
	Engineering	<u>6,500.00</u>
	Total Cost .....	\$ 79,146.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

HEALY, ALASKA

EXISTING - 2 landing strips 250' x 700' 250' x 800'  
LOCATION - Lat. 63°50' N. Long. 149°0' W.  
PROPOSED - 2 landing strips 500' x 3000'  
Gravel Surfacing

CONST. COSTS -	Clearing & Grubbing	\$ 11,500.00
	Grading	52,111.00
	Surfacing. Gravel only.	21,000.00
	Drainage	6,100.00
	Lighting	12,000.00
	Terminal Building	3,500.00
	Hangar & Service	None
	Seaplane Ramp & Float	None
		<u>106,211.00</u>
	Engineering	<u>10,621.00</u>
	Total Cost .....	\$ 116,832.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

KODIAK, ALASKA

EXISTING - None

LOCATION - Kodiak Island

PROPOSED - 1 landing strip 500' x 3000'  
Gravel Surfacing

CONST. COSTS -	Clearing & Grubbing	\$	16,500.00
	Grading		12,000.00
	Surfacing		15,000.00
	Drainage		7,250.00
	Lighting		6,500.00
	Terminal Building		5,200.00
	Hangar & Service		None
	Seaplane Facilities		<u>15,000.00</u>
			77,450.00
	Engineering		<u>7,745.00</u>
	Total Cost .....	\$	85,195.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

KOTZEBUE, ALASKA

EXISTING - 2 landing strips 180' x 1200' 195' x 720'  
LOCATION - 190 miles N-NE of Nome.  
PROPOSED - 2 landing strips 500' x 3000'  
Gravel Surface.

CONST. COSTS -	Clearing & Grubbing	\$ 6,075.00
	Grading	15,650.00
	Surfacing	12,200.00
	Drainage	6,320.00
	Lighting	12,311.00
	Terminal Building	2,500.00
	Hangar & Service	10,000.00
	Seaplane Facilities	None
		<u>65,056.00</u>
	Engineering	<u>6,505.00</u>
	Total Cost .....	\$ 71,561.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Secondary Field.

KOYUK, ALASKA

EXISTING - 1 landing strip 280' x 1600'  
LOCATION - Lat. 64°54' N. Long. 161°10' W.  
PROPOSED - 1 landing strip 500' x 3000'

CONST. COSTS -	Clearing & Grubbing	\$ 8,236.00
	Grading	15,000.00
	Surfacing	56,000.00
	Drainage (open )	5,652.00
	Lighting	7,500.00
	Terminal Building	None
	Hangar & Service	None
	Seaplane Ramp & Facilities	None
		<u>92,388.00</u>
	Engineering & Contingencies	<u>9,000.00</u>
	Total Cost .....	\$101,388.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

MULATO, ALASKA

EXISTING - 1 landing strip 300' x 1100'

LOCATION - Lat. 64°43' N. Long. 158°05' W. 80 miles W. of  
Ruby

PROPOSED - 2 landing strips 500' x 4000'  
Gravel Surface only.

CONST. COSTS -	Clearing & Grubbing	\$ 5,600.00
	Grading	26,000.00
	Surfacing	40,000.00
	Drainage	None
	Lighting	10,000.00
	Terminal Building	None
	Hanger & Service	5,000.00
	Seaplane Ramp & Float	None
		<u>86,600.00</u>
	Engineering & Contingencies	<u>8,660.00</u>
	Total Cost .....	\$ 95,260.00

REMARKS:

Construction Costs include transportation of men, materials,  
equipment, camp and supplies. Intermediete Field.



SEWARD, ALASKA

EXISTING -	2 landing strips 200' x 1800'	200' x 300'
LOCATION -	Lat. 60°7' N. Long. 149°26' W.	
PROPOSED -	2 landing strips 500' x 3000' Gravel Surfacing	
CONST. COSTS -	Clearing & Grubbing	\$ 28,000.00
	Grading	25,000.00
	Surfacing	27,350.00
	Drainage	4,500.00
	Lighting	12,000.00
	Terminal Bldg.	3,500.00
	Hangar & Servicing 100 x 100	24,000.00
	Seaplane Ramp & Float	7,500.00
		<u>131,850.00</u>
	Engineering	<u>13,155.00</u>
	Total Cost .....	\$ 144,705.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Local Airport not on airline.

SKAGWAY, ALASKA

EXISTING - Landing Strip 200' x 1960'  
LOCATION - Lat. 59°27' N. Long. 135°18' W.  
PROPOSED - 1 landing strip 500' x 3000'  
Gravel Surfacing

CONST. COSTS -	Clearing & Grubbing	\$	1,500.00
	Grading		10,200.00
	Surfacing		28,000.00
	Drainage		7,250.00
	Lighting		5,250.00
	Terminal Building		6,150.00
	Hangar & Service		None
	Seaplane Ramp & Facility		None
			<u>58,350.00</u>
	Engineering		<u>6,000.00</u>
	Total Cost .....	\$	63,350.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field. Secondary.

TALKEETNA, ALASKA

EXISTING - None

LOCATION - Site Lat. 62°00' N. Long 150°00' W.

PROPOSED - 1 landing strip 500' x 3000'  
Gravel Surfacing

CONST. COSTS -

Clearing & Grubbing	\$ 5,156.00
Grading	27,500.00
Surfacing	18,265.00
Drainage	9,602.00
Lighting	5,200.00
Terminal Building	None
Hanger & Service	7,367.50
Seaplane Ramp & Float	<u>10,202.00</u>
	83,292.50
Engineering	<u>8,329.00</u>
Total Cost .....	\$ 91,621.50

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Secondary Field. Intermediate.

TANANA, ALASKA

EXISTING - 1 landing strip 300' x 1400'  
LOCATION - Lat. 65°10' N. Long. 152°00' W.  
PROPOSED - 2 landing strips 500' x 3000'

CONST. Costs -	Clearing & Grubbing	\$ 14,000.00
	Grading	46,572.00
	Surfacing	28,000.00
	Drainage	None
	Lighting	12,750.00
	Terminal Building	9,000.00
	Hangar & Service	None
	Seaplane Ramp & Facilities	None
		<u>110,322.00</u>
	Engineering	<u>10,000.00</u>
	Total Cost .....	\$ <u>120,322.00</u>

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

UNALAKLEET, ALASKA

EXISTING - 2 landing strips 250' x 1500' 200' x 1500'  
LOCATION - Lat. 63°55' N. Long. 160°55' W.  
PROPOSED - Improve site. 1 landing strip 350' x 3000'  
Surfacing - gravel only.

CONST. COSTS -	Clearing & Grubbing	\$ 5,000.00
	Grading	150,000.00
	Surfacing	25,000.00
	Drainage	15,000.00
	Lighting	12,250.00
	Terminal Building	None
	Hangar & Service	None
	Seaplane Ramp & Float	None
		<u>207,250.00</u>
	Engineering	<u>20,725.00</u>
	Total Cost .....	\$227,975.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

VALDEZ, ALASKA

EXISTING - Landing Strips 200' x 1000'  
LOCATION - Lat. 61°07' N. Long. 146°16' W.  
PROPOSED - 2 landing strips 500' x 3000'  
Gravel Surfacing.

CONST. COSTS -	Clearing & Grubbing	\$ 3,250.00
	Grading	35,000.00
	Surfacing	50,000.00
	Drainage - Dykes	6,720.00
	Terminal Buildings	3,500.00
	Hangar & Service	None
	Seaplane Ramp & Float	<u>17,000.00</u>
		115,470.00
	Engineering	<u>10,000.00</u>
	Total Cost .....	\$125,470.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.

WISEMAN, ALASKA

EXISTING - 1 landing strip 400' x 1400'  
LOCATION - 175 miles N.-NW Fairbanks  
PROPOSED - 1 landing strip 500' x 3000'

CONST. COSTS -	Clearing & Grubbing	\$ 16,000.00
	Grading	38,286.00
	Surfacing	28,000.00
	Drainage	15,000.00
	Lighting	7,800.00
	Terminal Building	10,000.00
	Hanger & Service	56,000.00
	Seaplane Ramp & Float	None
		<u>171,086.00</u>
	Engineering	<u>17,108.00</u>
	Total Cost .....	\$ 188,194.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate - Auxiliary Field.

YAKUTAT, ALASKA

EXISTING - None

LOCATION - Lat.  $59^{\circ}34'$  N. Long.  $139^{\circ}34'$  W.

PROPOSED - 1 landing strip 500' x 3000'  
Gravel Surface

CONST. COSTS -	Clearing & Grubbing	\$ 8,000.00
	Grading	22,000.00
	Surfacing	9,600.00
	Drainage	15,000.00
	Lighting	6,000.00
	Terminal Building	5,250.00
	Hangar & Service	None
	Seaplane Ramp & Float	<u>12,000.00</u>
		77,850.00
	Engineering	<u>7,785.00</u>
	Total Cost .....	\$ 85,635.00

REMARKS:

Construction Costs include transportation of men, materials, equipment, camp and supplies. Intermediate Field.



COAST EMERGENCY FIELDS, ALASKA  
TOTAL COST OF CONSTRUCTION INCLUDING SURVEY, CONSTRUCTION  
AND TRANSPORTATION - \$1,814,921.87

<u>LOCATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>EXISTING FACILITY</u>	<u>REQUIRED FACILITY</u>
1. Bear Creek	61-02	159-48	150x800	300x3000
2. Baldwin	66-15	161-19	100x1100	300x3000
3. Bluff	64-35	163-41	400x900	400x3000
4. Bremner	61-03	143-29	170x800	300x3000
5. Cache Creek	62-28	151-02	100x900	300x3000
6. Candle	65-56	161-57	200x1200	300x3000
7. Cantwell	63-25	148-59	200x1000	300x3000
8. Cape of Prince Wales	65-38	168-04	250x1000	300x3000
9. Council	64-54	163-38	110x1300	300x3000
10. Curry	62-37	150-01	200x1100	300x3000
11. Goodnews Bay	59-02	161-47	400x3000	400x3000
12. Haycock	65-13	161-05	150x1400	300x3000
13. Kasilof	60-21	151-16	150x1200	300x3000
14. Kenai	60-34	151-15	200x1200	300x3000
15. Kiwalik	66-01	161-58	250x1600	300x3000
16. Lower Tonsina	61-38	144-42	(150x900 (150x900	300x3000 300x3000
17. Moose Creek	61-43	149-07	200x1000	300x3000
18. Ninilchik	60-05	151-38	240x1335	300x3000
19. Selawik	66-34	160-03	100x1000	300x3000
20. Sitka	57-00	135-00	-	300x3000
21. Solomon	64-35	164-22	235x5200	300x5200
22. Susitna Station	61-32	150-32	225x1500	300x3000
23. Teller	65-18	166-20	(300x1250 (250x1400	300x3000 300x3000
24. Thompson Pass	61-11	145-44	100x1000	300x3000
25. Tin City	65-33	167-55	150x1000	300x3000
26. Wasilla	61-35	149-30	200x1000	300x3000
27. Willow Creek	61-44	149-28	240x1200	300x3000
28. Willow Creek Mines	61-44	149-25	130x1500	300x3000
29. Willow Station	61-43	150-03	150x1100	300x3000

INTERIOR EMERGENCY FIELDS, ALASKA  
TOTAL COST OF CONSTRUCTION INCLUDING SURVEY, CONSTRUCTION,  
AND TRANSPORTATION - \$3,525,000.46

<u>LOCATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>EXISTING FACILITY</u>	<u>REQUIRED FACILITY</u>
1. American Creek	65-06	151-14	250x780	300x3000
2. Bettles River	67-35	149-38	250x600	300x3000
3. Boundary	62-42	141-14	-	300x3000
4. Brooks	65-33	148-33	200x1600	300x3000
5. Chena Hot Springs	65-04	146-05	300x800	300x3000
6. Chicken	64-05	141-55	200x1400	300x3000
7. Chichagof	-	-	-	300x3000
8. Chisana	62-05	142-04	150x1000	300x3000
9. Chistochina	62-35	144-43	250x1700	300x3000
10. Chiznik	-	-	-	300x3000
11. Circle Hot Springs	65-31	144-34	400x1700	400x3000
12. Copper Center	61-58	145-21	350x1400	350x3000
13. Cripple Creek	63-31	156-01	125x1450	300x3000
14. Eagle	64-48	141-12	350x1600	350x3000
15. Farwell Lake	62-15	153-30	-	300x3000
16. Fort Yukon	66-35	145-19	(150x800 (250x1400	300x3000 300x3000
17. Gakona	62-18	145-17	300x1500	300x3000
18. Ganes Creek	62-59	156-31	100x800	300x3000
19. Hoonah	-	-	-	300x3000
20. Hot Springs	-	-	-	300x3000
21. Jack Wade	64-06	141-47	150x1400	300x3000
22. Kaltag	64-20	158-42	250x2000	300x3000
23. Kobuk	66-57	156-58	240x1300	300x3000
24. Lost River	65-25	167-10	250x1250	300x3000
25. Lower Foulgarok	65-24	164-34	125x1100	300x3000
26. Manley Hot Springs	65-00	150-41	200x2100	300x3000
27. May Creek	61-20	142-43	150x1500	300x3000
28. McCarthy	61-25	142-56	(300x1160 (191x2100	300x3000 300x3000
29. McKinley Park	63-43	148-54	100x700	300x3000
30. Medfra	63-06	154-37	200x1500	300x3000
31. Moses Point	64-43	162-05	200x1500	300x3000
32. Nabesna	62-24	142-52	200x900	300x3000
33. Nenana	64-33	149-03	200x900	300x3000
34. Norvik	66-54	160-55	150x1500	300x3000
35. Ophir	63-10	156-33	200x800	300x3000
36. Palmer Creek	65-02	145-31	200x800	300x3000
37. Peters Creek	62-29	150-48	125x1100	300x3000
38. Pilgrim Hot Springs	65-05	164-58	200x1200	300x3000
39. Poorman	64-06	155-27	(350x1600 (200x1100	350x3000 300x3000

INTERIOR EMERGENCY FIELDS, ALASKA (Cont.)

<u>LOCATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>EXISTING FACILITY</u>	<u>REQUIRED FACILITY</u>
40. Point Barrow	-	-	-	300x3000
41. Slate Creek	63-16	144-57	150x1700	300x3000
42. Squirrel River	67-08	160-20	150x1200	300x3000
43. Takotna	63-00	156-05	300x1300	300x3000
44. Taylor Creek	65-40	164-48	150x1200	300x3000
45. Tolovana	-	-	-	-
46. Tonsina	61-38	145-13	250x1000	300x3000
47. Valdez Creek	63-11	147-28	125x900	300x3000