

ANNUAL REPORT OF THE CHIEF OF ENGINEERS, 1926

EXTRACT

REPORT UPON THE CONSTRUCTION AND
MAINTENANCE OF ROADS, BRIDGES,
AND TRAILS, ALASKA

BOARD OF ROAD COMMISSIONERS
FOR ALASKA

Part 1, 1926



WASHINGTON
GOVERNMENT PRINTING OFFICE
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[EXTRACT FROM THE ANNUAL REPORT OF THE CHIEF OF ENGINEERS
TO THE SECRETARY OF WAR]

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, October 5, 1926.

* * * * *

BOARD OF ROAD COMMISSIONERS FOR ALASKA

OFFICERS OF THE BOARD

President: Maj. James G. Steese, Corps of Engineers, United States Army, retired.

Engineer officer: Maj. Lunsford E. Oliver, Corps of Engineers, United States Army.

Secretary and disbursing officer: First Lieut. Harry E. Fisher, Corps of Engineers, United States Army.

Military assistants, under the immediate orders of the president of the board: Second Lieuts. Arleigh T. Bell and Frank A. Pettit, Corps of Engineers, United States Army, since September 28, 1925.

Organization and duties.—The act of Congress approved January 27, 1905, "To provide for the construction and maintenance of roads * * * in the District of Alaska, and for other purposes," as amended and supplemented, prescribes in part as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all moneys derived from and collected for liquor licenses, occupation, or trade licenses outside of the incorporated towns in the Territory of Alaska shall be deposited in the Treasury

Department of the United States, there to remain as a separate and distinct fund, to be known as the Alaska fund, and to be wholly devoted to the purposes hereinafter stated in the Territory of Alaska * * * and all the residue (65 per cent of total fund) of said fund shall be devoted to the construction and maintenance of wagon roads, bridges, and trails in said Territory * * *.

SEC. 2. That there shall be a board of road commissioners in said district, to be composed of an Engineer officer of the United States Army to be detailed and appointed by the Secretary of War, and two other officers of that part of the Army stationed in said district and to be designated by the Secretary of War. The said Engineer officer shall during the term of his said detail and appointment abide in said district. The said board shall have the power, and it shall be their duty, upon their own motion or upon petition, to locate, lay out, construct, and maintain wagon roads and pack trails from any point on the navigable waters of said district to any town, mining or other industrial camp or settlement, or between any such towns, camps, or settlements therein, if in their judgment such roads or trails are needed and will be of permanent value for the development of the district; but no such road or trail shall be constructed to any town, camp, or settlement which is wholly transitory or of no substantial value or importance for mining, trade, agricultural, or manufacturing purposes. * * * In case no responsible and reasonable bid can be secured, then the work may be carried on with material and men procured and hired by the board. The Engineer officer of the board shall in all cases supervise the work of construction and see that the same is properly performed. * * * It shall be the duty of said board, as far as practicable, to keep in proper repair all roads and trails constructed under their supervision, and the same rules as to the manner in which the work of repair shall be done, whether by contract or otherwise, shall govern as in the case of the original construction of the road or trail. The cost and expense of laying out, constructing, and repairing such roads and trails shall be paid by the Secretary of the Treasury, through the authorized disbursing officer of the board, designated by the Secretary of War, out of the road and trail portion, of said "Alaska fund" upon vouchers approved and certified by said board * * *. (Act of January 27, 1905, 33 Stat. 616, as amended by acts of May 14, 1906, 34 Stat. 192, and March 3, 1913, 37 Stat. 728.)

Provided, That hereafter the Secretary of War may, in his discretion, assign suitable retired officers of the Army to active duty as members of the board of road commissioners for Alaska. (Act of March 3, 1911, 36 Stat. 1062.)

Provided, That hereafter, so long as the construction and maintenance of "military and post" roads in Alaska, and of other roads, bridges, and trails in that Territory shall remain under the direction of the Secretary of War, he be authorized to submit such estimates for the consideration of Congress as are in his judgment necessary for a proper prosecution of the work. (Act of July 9, 1918, 40 Stat. 843.) Hereafter when an appropriation for this purpose for any fiscal year shall not have been made prior to the 1st day of March preceding the beginning of such fiscal year, the Secretary of War may authorize the Board of Road Commissioners to incur obligations for this purpose of not to exceed 75 per centum of the appropriation for this purpose for the fiscal year then current, payment of these obligations to be made from the appropriation for the new fiscal year when it becomes available. (Act of February 12, 1925, 43 Stat. 930.)

Provided, That the Secretary of War is hereby authorized to receive from the Territory of Alaska, or other source, such funds as may be contributed by them to be expended in connection with funds appropriated by the United States for any authorized work of construction, repair, and maintenance of roads, bridges, ferries, trails, and related works in the Territory of Alaska, and to cause such funds to be deposited to the credit of the Treasurer of the United States, and to expend the same in accordance with the purpose for which they were contributed. (Act of June 30, 1921, 42 Stat. 90.)

Construction and maintenance of roads, bridges, and trails, Alaska.—For the construction, repair, and maintenance of roads, tramways, ferries, bridges, and trails, Territory of Alaska, to be expended under the direction of the board of road commissioners described in section 2 of an act entitled "An act to provide for the construction and maintenance of roads, the establishment and maintenance of schools, and the care and support of insane persons in the District of Alaska, and for other purposes," approved January 27, 1905, as amended by the act approved May 14, 1906, and to be expended conformably to the provisions of said act as amended, \$900,000, to be immediately available. (Act of April 15, 1926.)

The board was organized May 15, 1905. War Department orders of February 15, 1913, relative to the work of the board, prescribe that the senior officer on duty, designated as president, shall have general charge of the operations, that the Engineer officer shall supervise the work of construction in the field as provided by law, and that the third officer shall act as disbursing officer of the board.

From its organization until December 29, 1917, the board reported direct to the War Department through The Adjutant General. On that date orders were issued by the Secretary of War placing the work under the general supervision of the Chief of Engineers.

Offices of the board.—The principal office of the board is at Juneau, Alaska. Suboffices are maintained, when required by active operations, at Valdez, Chitina, Fairbanks, Eagle, Nenana, Anchorage, Seward, Takotna, and Nome, Alaska; Seattle, Wash.; and Washington, D. C.

Location and description.—The work thus far accomplished includes the construction of 1,433½ miles of wagon road, 100 miles of tramroad, 1,086 miles of sled road, 6,671½ miles of permanent trail, and 712 miles of temporary flagged trail, a total of 10,003 miles.

The Territory has an area of 590,880 square miles, which is more than twelve times the size of the State of New York, or practically one-fifth the size of the United States proper. At its southern point it is 700 miles from the northwest point of the State of Washington by the usually traveled route. Thence the southeastern Alaska Archipelago and a strip of mainland lying west of the Canadian boundary extend northwesterly for about 520 miles to the major portion of the Territory, which lies west of the one hundred and forty-first meridian, and has a dimension of approximately 900 miles north and south and 700 miles east and west, with the Alaska Peninsula and Aleutian Islands reaching out from the southwestern portion nearly 2,500 miles toward Siberia.

The topography of Alaska varies from rolling to extremely rugged, with little level area. The seaward slope, as far west as Cook Inlet, is especially rugged and subject to a heavy rain and snow fall.

The timber along the coast attains a dense growth, but in the interior is only found along the stream valleys. Spruce and hemlock form the greatest part of the timber on the coast. Hemlock is not found in the interior.

On the north slope of the Alaska range and on interior river valleys considerable areas are found frozen permanently to bedrock. The climate and topography throughout are such that in the summer time passage overland is difficult. On the seaward slope the heavy rainfall upon the blanket of decayed vegetation creates a footing almost impassable. In the interior the surface thawing of the bed of frozen gravel makes a widespread and difficult morass.

Original condition.—Prior to the organization of the Board of Road Commissioners for Alaska there were in the whole of the Territory less than a dozen miles of what might be called wagon road, with a few hundred miles of pioneer trail, mostly constructed by expeditions under the War Department. Travel was largely confined to the open waterways in summer and to their frozen courses or overland in winter. When mining machinery and other supplies were to be transported from the coast or river landing they were in

most cases hauled over the snow during the winter, with some preliminary clearing of the route when necessary. Travel across country in summer, generally speaking, was possible only on foot or with pack horses. It was difficult always, and frequently dangerous, on account of the numerous swift and deep streams, fed by the ice-cold and silt-laden waters of mountain glaciers.

Previous projects.—See description in Annual Report of the Chief of Engineers for 1923, beginning on page 2086. A new program of operations was recommended in the Annual Report of the Chief of Engineers, 1920, pages 61 to 65. The amounts expended on previous projects prior to June 30, 1921, were \$3,727,249.69 for new work and \$2,276,812.27 for maintenance, a total of \$6,004,061.96.

Existing project.—For description of development of existing project, see Annual Report of the Chief of Engineers for 1924, page 2069.

The proposed annual appropriations and the amounts actually appropriated under the 1920 program described in the Annual Report for 1924, are as stated in the table below:

Fiscal year	Working season	Amount estimated	Amount actually appropriated
First (1922).....	1921	\$955,000	\$425,000
Second (1923).....	1922	1,200,000	465,000
Third (1924).....	1923	1,500,000	650,000
Fourth (1925).....	1924	1,600,000	780,000
Fifth (1926).....	1925	1,400,000	900,000
Total for first 5 years.....		6,655,000	3,220,000

The total appropriations for the first five years were less than half the estimates, and about three-fourths of the available funds were required for maintenance and repair. Construction should be speeded up so as to get the maximum benefit from the work already accomplished, and the 1920 program was, therefore, revised in 1924. The appropriations recommended for the second five years of the 10-year period are as follows:

(a) For maintenance of existing routes, 9,736 miles, at \$542,000 per year.....	\$2,710,000
(b) For improvement of existing routes to the same standard throughout.....	2,600,000
(c) For completion of projects already undertaken.....	1,735,000
(d) For completion of projects already approved but not yet undertaken.....	1,780,000
(e) For completion of projects likely to arise with development during the five years.....	1,185,000
Total for five years.....	9,960,000
Less Alaska fund and Territorial contributions (estimated).....	960,000
Net Federal appropriations.....	9,000,000

1924 PROGRAM

Federal appropriations required each year of five-year period of road and trail development

Fiscal year	Working season	(a) Maintenance, ¹ existing routes	(b) Improvement, existing routes	(c) Completion, approved projects already under way	(d) Construction, approved projects not yet under way	(e) Construction, new projects likely to develop	Total estimated	Amount actually appropriated
1927-----	1926	\$350,000	\$600,000	\$510,000	\$290,000		\$1,750,000	\$900,000
1928-----	1927	360,000	500,000	475,000	375,000	\$100,000	2,000,000	
1929-----	1928	350,000	500,000	400,000	550,000	200,000	2,000,000	
1930-----	1929	360,000	500,000	250,000	300,000	350,000	1,760,000	
1931-----	1930	350,000	500,000	100,000	65,000	485,000	1,500,000	
Total-----		1,760,000	2,600,000	1,735,000	1,780,000	1,125,000	9,000,000	900,000

¹ Exclusive of Alaska fund and territorial contributions for maintenance estimated at \$192,000 per year.

For latest published maps see map following page 54, Part II, of the annual report of the Alaska Road Commission fiscal year 1921, and also a wall map of Alaska published by the board of road commissioners, 1923.

Recommended modifications of project.—None.

Local cooperation.—For description of development of local cooperation, authorized by the act of June 30, 1921, previously quoted see Annual Report of the Chief of Engineers for 1924, beginning on page 2071.

Under the provisions of section 17 of the Territorial road law of April 21, 1919, Mr. Anton Eide, assistant superintendent of the board for southwestern Alaska, acted as chairman and secretary of the Territorial divisional road commission for the third division. Similarly, Mr. M. C. Edmunds, superintendent of the Alaska Road Commission for the Fairbanks district, acted as chairman and secretary of the fourth divisional road commission. No Territorial road organization has been maintained since March 31, 1921.

During the fiscal year the board supervised the expenditure of \$9,882.86 by the chairman of the Territorial road commission for the third division and \$12,360 by the chairman of the Territorial road commission for the fourth division.

During the fiscal year it has expended directly \$9,715.41 for shelter cabins, \$107,505.28 for roads, \$10,226.08 for aviation fields, and \$2,149.10 for telephone lines, from funds contributed by the Territory, and \$2,819.01 contributed by others.

For the working season of 1926 the Territorial board has allotted to the Department of Agriculture \$29,325 and to the Federal board the following amounts:

Cooperative projects-----	\$66,000.00
Shelter cabins-----	8,624.34
Aviation fields-----	14,773.92
Telephone lines-----	1,850.90
Total-----	91,249.16
Chairman third division-----	15,217.14
Chairman fourth division-----	16,440.00
Grand total-----	122,906.30

These funds are held subject to the call of the Federal board. The divisional funds are disbursed through local banks, but all vouchers are audited by the Federal board under the same restrictions that apply to Federal vouchers before being certified to the Territorial treasurer for payment.

Cooperation with the Territory has been continued in connection with the purchase, rehabilitation, and operation of two tramroads, one extending from Nome to Shelton on the Seward Peninsula, a distance of about 87 miles, and the other situated in the Tolovana district about 50 miles northwesterly from Fairbanks and extending from the town of Brooks about 13 miles southerly to the head of navigation on the Tolovana River.

The Nome-Shelton tramroad was purchased on October 3, 1922, for \$24,014. During the fiscal year \$25,049.25 was spent on its rehabilitation.

The Tolovana tramroad was purchased on June 11, 1924, for \$6,425. During the fiscal year \$4,190.59 was spent on its rehabilitation.

During the year the board assumed responsibility for the construction of eight aviation fields and the repair and maintenance of 400 miles of telephone lines for the Territory.

The 1919 Territorial road act released cooperative national forest funds of the Department of Agriculture which had been accumulating for several years. Until July 1, 1920, Maj. William H. Waugh, engineer, United States Army, a former engineer of the Bureau of Public Roads and up to that date a member of the Board of Road Commissioners for Alaska, served also as the representative of the Department of Agriculture in charge of national-forest road construction.

On July 1, 1920, the Department of Agriculture created a separate organization to handle its work and took over a few of the board's projects. The department funds were inadequate to handle all of the projects in the national forests that were under construction under the board.

When greatly increased funds for the national forests became available in 1922 the board offered its services to handle all forest-road construction in accordance with the requirements of the Forest Service, but the Department of Agriculture decided to increase its own organization. Since May 1, 1922, it has assumed responsibility for all former projects of the board within or partly within the national forests. The funds of this board formerly absorbed in these projects are thereby available for use in other parts of the Territory.

Effect of improvement.—The roads and trails constructed by the board have not only opened up to development nearly all sections of the Territory but have effected large savings in freight charges. Data collected by the board since 1911 indicate that the annual saving in cost of transportation of freight due to the construction of roads by the board is in excess of \$2,000,000. It is doubtful, however, if anything like that amount of freight would have been transported without the roads, and the indirect loss that would have been occasioned by the restriction on output and development if the roads did not exist can not be estimated.

The use of automobiles is increasing rapidly. Approximately 90 per cent of the traffic on the main wagon roads is handled by motor, which has greatly increased the cost of road maintenance. The use of tractors for drawing freight, particularly on the sled roads of the interior, is a valuable new development.

Operations and results during fiscal year.—The work in the last fiscal year was largely directed to extending the general rehabilitation begun in 1920 to trails and roads in remote portions of the Territory. This gradual rehabilitation started on the more important projects and has now reached trails extending to all inhabited parts of the Territory.

The work accomplished during the fiscal year may be summarized as follows: New construction 67½ miles wagon road, 14 miles sled road, 212 miles trail, 380 linear feet of bridges of 60-foot span and over, 8 airplane landing fields. Improvement, 62 miles wagon road reconstructed, 96 miles wagon road graveled, 5 miles Nome-Shelton tramway raised to standard of 10-ton loads, and innumerable small bridges and culverts rebuilt. Maintenance, 1,035¼ miles wagon road, 95 miles tramway, 935 miles sled road, 3,631½ miles permanent trail, 368½ miles temporary flagged trail, and 400 miles telephone lines. Total for all classes of work, 6,495½ miles, consisting of 1,234½ miles of wagon road, 100 miles of tramway, 949 miles of sled road, 3,843½ miles of permanent trail, and 368½ miles of temporary flagged trail.

The more important roads upon which new construction was performed were the Haines-Pleasant Camp, McCarthy-Nizina, Chatanika-Circle, Mount McKinley National Park, Gulkana-Chistochina, Long-Poorman, and Ophir-Tokotna. The extensive bridge program inaugurated the previous year was continued. The more important structures upon which new construction or extensive repairs were performed included bridges across Savage and Sanctuary Rivers in McKinley Park, Big Goldstream, Hot Springs Slough, Valdez Glacier Stream, Bear Creek, Klutina River, Miller's Glacier Stream at mile 223, Banner Creek, Gasoline Creek, and Tanana Slough at mile 348.

The important Richardson Highway, which was reopened in 1921, was maintained open during the entire season. There was an increased tourist travel during the 1925 season. Traffic reports show the following movement over the highway during the calendar year 1925: 4,208 persons, 1,853 motor-driven vehicles, 139 wagons, 479 double bobsleds, 6 pack horses, and 1,704 tons of freight. During the 1926 season tourist travel began in June, nearly a month earlier than had been possible heretofore.

Construction work was delayed somewhat during the 1925 season on account of very wet weather. An early spring in 1926 has helped in opening up work.

The total expenditures during the fiscal year amounted to \$1,311,317.69, of which \$828,045.38 was for construction and \$483,272.31 was for maintenance.

Condition at end of fiscal year.—The work of maintenance and rehabilitation has been pushed, and the roads and trails under the jurisdiction of the board are in better shape than ever before. Work was performed upon 6,495½ miles of the system during the fiscal year.

The 410-mile Valdez-Chitina-Fairbanks road received special attention. Two more seasons should see this important overland route completed to a uniform standard and given a gravel surface throughout. Over 110 miles of the 165-mile extension from Fairbanks to Circle, on the Upper Yukon, are now passable for wagons, and the entire route is utilized for winter travel by double bobsled.

The total expenditures to the end of the fiscal year, June 30, 1926, amounted to \$10,090,617.78, not including outstanding liabilities or contributed funds, of which \$5,937,942.94 was expended for new construction and \$4,152,674.84 for maintenance.

Proposed operations.—The 10-year program described under "Existing project" proposed the appropriation of \$1,750,000 for the prosecution of the work for the fiscal year ending June 30, 1927. Only \$900,000 was provided by the act of April 15, 1926. These funds will be expended on rehabilitation and some improvement of the existing system. Unless much greater annual appropriations are made, little can be done to meet the pressing need for improvements and extensions of the system, especially in providing urgently needed highway and trail feeders to the Government railroad (the Alaska Railroad) now completed. For the fiscal year 1925 Congress provided for a maintenance and operations deficit on the Alaska Railroad of \$1,605,000.

The annual maintenance of the road and trail system after completion, as nearly as can be estimated at this time, will cost about \$550,000.

Amount which can be profitably expended during the fiscal year ending June 30, 1928.—An appropriation, in accordance with the 1924 program, of \$2,000,000, to be distributed approximately as follows, can be profitably expended on the work during the fiscal year ending June 30, 1928:

District	Mileage existing system			Existing projects			Average per mile		
	Roads	Sled roads	Trails	(a) Maintenance	(b) Improvement	Total	Roads	Sled roads	Trails
Southeastern.....	79		5	23,750	20,000	43,750	563		10
Bethel.....			970	4,850		4,850			5
Eagle.....	29	173	388	13,000	10,000	23,000	533	25	8
Valdez.....	165½			34,000	180,000	214,000	2,033		
Chitina.....	220½		346	96,000	145,000	241,000	1,078		10
Fairbanks.....	404½	209½	440	138,000	125,000	263,000	623	26	10
Nenana.....	145½	446	630	40,000		40,000	204	16	5
Southwestern.....	191½	183	269	65,000		65,000	299	25	11
Kuskokwim.....	77½	47½	1,158½	29,000	20,000	49,000	557	25	4
Nome.....	280½	27	2,487	98,400		98,400	306	16	5
Total.....	1,633½	1,086	6,671½	542,000	500,000	1,042,000	638	21	6

¹ Exclusive of 712 miles of temporary flagged trails.

District	New Construction				Grand total of estimates (a), (b), (c), (d), and (e)
	(c) Approved projects already under way	(d) Approved projects not yet started	(e) New projects likely to develop	Total	
Southeastern.....					43, 750
Bethel.....			10, 000	10, 000	14, 850
Eagle.....					23, 000
Valdez.....					214, 000
Chitina.....	100, 000		80, 000	180, 000	401, 000
Fairbanks.....	240, 000	200, 000		440, 000	703, 000
Nenana.....	60, 000	105, 000		165, 000	205, 000
Southwestern.....	65, 000	150, 000		215, 000	280, 000
Kuskokwim.....	10, 000		30, 000	40, 000	89, 000
Nome.....		120, 000		120, 000	218, 400
Total.....	475, 033	575, 000	100, 000	1, 150, 000	2, 192, 000
Less Alaska fund and Territorial contributions for maintenance, estimated at.....					192, 000
Net Federal appropriation.....					2, 000, 000

COMMERCIAL STATISTICS

Total commerce of Alaska for the calendar year 1925:

IMPORTS

Merchandise from the United States.....	\$32, 352, 530
Merchandise from foreign ports.....	846, 981
Total imports.....	33, 199, 511

EXPORTS

Merchandise to the United States.....	55, 639, 050
Merchandise, gold, and silver to foreign ports.....	901, 843
Domestic gold and silver to the United States.....	5, 682, 842
Total exports.....	62, 223, 735
Grand total, exports and imports.....	95, 423, 246

This is an increase of \$1,828,133 over the corresponding figure for 1924.

The value of Alaska's mineral output in 1925 was \$17,850,000, as compared with \$17,457,333 in 1924.

Minerals are being produced in the following order of value: Copper, gold, silver, coal, lead, petroleum, marble, gypsum, tin, and platinum.

The production of gold decreased slightly during the year, while the total production of lead, petroleum, marble, gypsum, tin, platinum, and copper increased about 10 per cent.

Quoting from Dr. A. H. Brooks, chief Alaskan geologist of the Geological Survey:

The Alaska gold miner shares with his colleagues in the rest of the world the disability produced by the disrupted economic conditions, which cause very high operation costs, while the value of his produce remains fixed. Were it not for the improvement in transportation furnished by the railroads and wagon roads, that in certain districts have reduced costs, Alaska gold output would have been far less than it has been.

In 1925 Alaska produced about 60,000 tons of coal as compared with 90,000 tons from 10 mines in 1924 and 119,826 tons from 12 mines in 1923. A very large part of the total output came from the

Evan Jones mine in the Matanuska field, which produces bituminous coal, and from the mine of the Healy River Coal Corporation in the Nenana field, which produces good lignite.

Excellent cannel coal in very large quantities was discovered along the upper Healy River and is now being developed.

In 1925, as in the past, all the petroleum produced in Alaska was obtained from a dozen small wells in the Katalla field, on the only patented tract of oil land in the Territory. These wells and a small refinery are operated by the Chilkat Oil Co., which sells its gasoline and distillate in the local market. Interest in the exploration of promising oil fields in Alaska continues. Drilling in the Cold Bay district was continued on the Pearl Creek dome by the Standard Oil Co. of California. The Associated Oil Co. renewed operations in June, 1925, and continued drilling during the remainder of the year. The General Petroleum Co. landed an outfit late in the fall and plans drilling in the Yakataga field in the spring.

Geologic and topographic surveys of naval petroleum reserve No. 4, in northern Alaska, were continued during the year. The Geological Survey has not as yet made a study of these surveys and a statement has not been made regarding the possibility of obtaining oil in that region. The work done, however, confirms the finding of the expedition that visited the coastal region of the reserve in 1923 and reported the occurrence of seeps of oil there.

Canned salmon shipped from Alaska to the United States and Canada totaled 218,146,509 pounds, valued at \$28,845,821. The product of this industry is greater than all other products of Alaska put together, including gold and silver. The value of fish and fish products for 1925, \$37,609,451, constituted over 60 per cent of the shipments from the Territory.

The relative value of the chief fish products exported in 1925 is as follows: Canned salmon, cured or preserved herring, cured or preserved salmon, fresh frozen halibut, clams, fish oil and cod, fresh and frozen salmon, shrimps, meal, and crabs.

Additional duties of the board.—The president of the board is also district engineer for the Juneau, Alaska, river and harbor district. The other two members of the board are placed under the immediate orders of the district engineer and the secretary and disbursing officer of the board is disbursing officer for the district. Expenditures, \$47,521.95.

The president of the board, in addition to his other duties, has under the provisions of acts of Congress approved June 17, 1910, and June 15, 1917, been detailed for consultation or to superintend the construction or repair of any aid to navigation authorized by Congress in the sixteenth (includes Territory of Alaska) light-house district and reported by letter to the Secretary of Commerce.

By informal agreement with the Territorial board of road commissioners this board has agreed, under the terms of the Territorial act of April 21, 1919, to permit its assistant superintendent for the southwestern district and its superintendent for the Fairbanks district to be appointed chairmen and secretaries of the third and fourth Territorial road districts, respectively, to supervise their operations and to certify vouchers to the Territorial treasurer for payment, following the same general procedure as for Federal vouchers. Expenditures, \$22,242.86.

Effective November 14, 1921, the president of the board was appointed consulting engineer for the Territory and assumed direct charge of all Territorial public works. In May, 1923, he was appointed director of public works for the Territory. Expenditures, \$132,414.88.

By informal arrangement the president of the board agreed to act for the National Park Service, Department of the Interior, on certain matters relating to the improvement of the Sitka National Monument and the development of Mount McKinley National Park. Expenditures, \$50,562.01.

At the request of the Quartermaster General of the Army, the board has agreed to assume charge of the administration of the Sitka National Cemetery, created by Executive order of June 12, 1924. Expenditures, \$290.17.

At the request of the Quartermaster General of the Army, the board submitted a special report upon the water-supply system of Chilkoot Barracks, Alaska, and has assumed charge of the construction of a 1,000,000-gallon concrete reservoir and repairs to the pipe line crossing Chilkat Inlet. This work was practically completed at the end of the fiscal year. Expenditures, \$7,500.

Financial summary

Amount expended on all projects to June 30, 1926,

including receipts from sales, etc.:

During fiscal years 1905-1925	\$8,911,714.97	
Fiscal year 1926	1,178,902.81	\$10,090,617.78
Alaska special fund, fiscal years 1920-1925	590,132.45	
Alaska special fund, fiscal year 1926	132,414.88	722,547.33
		<u>10,813,165.11</u>
Total for new work	6,324,142.94	
Total for maintenance	4,489,022.17	
Total expended		10,813,165.11
Balance available		812,070.22
Grand total to be accounted for		<u>11,625,235.33</u>

Appropriations to June 30, 1926:

Construction and maintenance of military and post roads, bridges, and trails, Alaska	7,525,600.00
Wagon roads, bridges, and trails, Alaska fund	3,060,090.18
Increase of compensation, War Department	95,069.50
Receipts from sales, etc., prior to 1921	48,694.14
Funds contributed by Territory of Alaska and others for public roads, bridges, trails, and ferries, Alaska special fund	726,123.05
Roads and trails, national parks	130,000.00
National cemeteries	602.17
Refunds, etc., to War Department appropriations	16,910.91
Refunds to increase of compensation	16.95
Refunds, etc., to contributed funds	7,855.89
Refunds to roads and trails, national parks	20.00
Reimbursement from Navy Department	3,978.19
Sales, refunds, etc., to accrue to Alaska fund	10,286.35
Total	<u>11,625,235.33</u>

1962 REPORT OF CHIEF OF ENGINEERS, U. S. ARMY, 1926

Fiscal year ending June 30	1922	1923	1924	1925	1926
Expended for improvement and new work	\$236,261.91	\$314,195.39	\$490,360.53	\$728,040.04	\$628,045.38
Expended for maintenance	446,993.77	426,687.10	446,747.12	410,307.60	483,272.31
Total expended	683,247.68	740,882.49	936,107.65	1,138,347.64	1,111,317.69
Appropriated by War Department acts	425,000.00	1,115,000.00	725,500.00	955,000.00	900,000.00
Allocated from Alaska fund	173,029.19	84,398.23	67,683.67	198,518.01	115,035.11
National cemeteries				300.00	302.17
Contributed by Territory of Alaska and others	56,421.05	113,392.42	110,665.35	79,861.57	136,518.11
Roads and trails, national parks				80,000.00	50,000.00
Increase of compensation, War Department	4,322.00	26,857.73	58,963.23	1,836.54	
Total	658,772.33	1,291,648.37	963,112.25	1,265,516.12	1,201,656.39

July 1, 1925, balance available	\$879,560.78
Amount appropriated by War Department act approved Apr. 15, 1926	900,000.00
Amount accrued to Alaska fund during fiscal year 1926	137,431.66
Amount contributed by Territory of Alaska and others	136,318.11
Refunds, etc., all appropriations	7,817.36
Receipts from sales, etc., during fiscal year 1926	11,957.83
National cemeteries, 1925	2.17
National cemeteries, 1926	300.00
Roads and trails, national parks, 1926-27	50,000.00
Total resources	2,123,387.91
June 30, 1926, amount expended during fiscal year, including receipts from sales, etc.:	
New work	\$628,045.38
Maintenance	483,272.31
	1,111,317.69
July 1, 1926, balance unexpended	812,070.22
July 1, 1926, outstanding liabilities	288,660.14
July 1, 1926, balance unobligated	523,410.08
Amount available from War Department act approved Apr. 15, 1926	635,132.38
Amount available from Alaska fund on June 30, 1926	155,207.88
Receipts from sales, refunds, etc., during fiscal year (not credited)	10,286.35
Amount available from contributed funds on June 30, 1926	11,431.61
Amount available from national cemeteries, 1926	12.00
Amount available for fiscal year ending June 30, 1927	812,070.22
Amount (estimated) required to be appropriated for completion of existing projects	8,100,000.00
Amount that can be profitably expended in fiscal year ending June 30, 1928:	
For new work	1,150,000.00
For maintenance	850,000.00
Total	1,200,000.00

¹ Exclusive of available funds.

APPROPRIATIONS

Construction and maintenance, military and post roads, bridges, and trails, Alaska:

Total amount appropriated to and including June 7, 1924 (see detailed statement on p. 2084, Annual Report of the Chief of Engineers, 1924) -----

\$5, 670, 600.00

Dec. 6, 1924 ----- 55, 000.00

Feb. 12, 1925 ----- 900, 000.00

Apr. 15, 1926 ----- 900, 000.00

\$7, 525, 600.00

Receipts from Treasury, United States, account "Alaska fund," wagon roads, bridges, and trails, Alaska fund:

Total receipts to end of fiscal year 1924 (see statement on p. 163, Pt. II, Annual Report of the Alaska Road Commission, fiscal year 1924) -----

2, 775, 208.93

1925 ----- 123, 871.33

Proceeds from sales, etc. ----- 11, 634.57

1926 ----- 137, 431.66

Proceeds from sales, etc. ----- 11, 943.69

3, 060, 090.18

Increase of compensation, Military Establishment:

Fiscal years 1918-1924 (see detailed statement on p. 2084, Annual Report of the Chief of Engineers, 1924) -----

93, 223.96

Fiscal year 1924 (expended during 1925) -----

1, 835.54

95, 059.50

National cemeteries:

Fiscal year 1925 ----- 302.17

Fiscal year 1926 ----- 300.00

602.17

Roads and trails, national parks:

Mar. 3, 1925 ----- 80, 000.00

May 10, 1926 ----- 50, 000.00

130, 000.00

Total, Federal funds ----- 10, 811, 351.85

CONTRIBUTED FUNDS

(Act of Congress approved June 30, 1921, Alaska special fund)

1. By the Territory of Alaska (see detailed statement on p. 2084, Annual Report of the Chief of Engineers, 1924):

Fiscal year 1920 ----- \$115, 517.94

Fiscal year 1921 ----- 113, 748.61

Fiscal year 1922 ----- 54, 737.28

Fiscal year 1923 ----- 112, 012.88

Fiscal year 1924 ----- 106, 325.35

Fiscal year 1925 ----- 78, 978.45

Fiscal year 1926 -----

Public roads, etc. ----- \$113, 850.00

Shelter cabins ----- 17, 500.00

Telephone lines ----- 2, 149.10

133, 499.10

Total, Territory ----- 714, 817.61

1964 REPORT OF CHIEF OF ENGINEERS, U. S. ARMY, 1928

2. By others (see detailed statement on p. 2085, Annual Report of the Chief of Engineers, 1924) :

Fiscal year 1922-----		\$1, 683. 77
Fiscal year 1923-----		1, 379. 54
Fiscal year 1924-----		4, 540. 00
Fiscal year 1925-----		883. 12
Fiscal year 1928—		
National Park Service-----	\$562. 01	
The Alaska Railroad-----	500. 00	
Fairbanks Exploration Co.-----	802. 00	
City of Fairbanks-----	855. 00	
		<u>2, 819. 01</u>
Total, contributed funds-----		<u>726, 123. 05</u>
Grand total, all funds-----		<u>11, 537, 474. 90</u>



ANNUAL REPORT OF THE ALASKA ROAD COMMISSION

FISCAL YEAR 1926

35.10/21:
26/2

Chas. M. ...

ANNUAL REPORT OF THE ALASKA ROAD COMMISSION
FISCAL YEAR 1925

REPORT UPON THE CONSTRUCTION AND
MAINTENANCE OF MILITARY AND POST
ROADS, BRIDGES AND TRAILS; AND OF
OTHER ROADS, TRAMWAYS, FERRIES,
BRIDGES, TRAILS, AND RELATED WORKS
IN THE TERRITORY OF ALASKA

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ANNUAL REPORT OF THE ALASKA ROAD COMMISSION
FISCAL YEAR 1926

REPORT UPON THE CONSTRUCTION AND
MAINTENANCE OF MILITARY AND POST
ROADS, BRIDGES AND TRAILS; AND OF
OTHER ROADS, TRAMWAYS, FERRIES,
BRIDGES, TRAILS, AND RELATED WORKS
IN THE TERRITORY OF ALASKA

TWENTY-SECOND ANNUAL
REPORT

1926

PART II

OPERATIONS

BOARD OF ROAD COMMISSIONERS
FOR ALASKA

JUNEAU, ALASKA

1926

3778

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Alaska District

Alaska Road Commission,
Juneau, Alaska, September 15, 1926.

The Honorable, The Secretary of War
(Thru The Chief of Engineers, United States Army)
Washington, D. C.

Sir:

In compliance with the provisions of Sec. 2 of an Act of Congress approved January 27, 1905, as amended by Act approved May 14, 1906, I have the honor to submit the attached report of the operations of this Commission for the fiscal year ending June 30, 1926.

There were no changes in the personnel of the Commission during the year. Second Lieuts. Arleigh T. Bell and Frank A. Pettit, Corps of Engineers, of the West Point class of 1925 reported on September 28, 1926 for duty as student officers. They have been appointed rodmen, and given a wide variety of duties. They are being given opportunities to perform useful work and to assume greater responsibilities as rapidly as they demonstrate their competency.

The close and cordial relations which this Commission has developed with other officials, both Federal and Territorial, continued during the year and several additional jobs for other bureaus were undertaken. The oft-repeated criticisms of government red-tape in Alaska decidedly do not apply to the operations of this Commission, which is the only Federal bureau permanently resident in the Territory and clothed by its enabling act with authority "of its own motion" to handle its business without reference to Washington.

Respectfully,

JAMES G. STEESE,

President.

**THE
ALASKA ROAD COMMISSION**

(From the speech of President Harding delivered in
Seattle, July 27, 1923, upon his return from
a tour of Interior Alaska.)

... "In another direction there is justification for a most liberal disposition; that of road and trail building. Much of the Alaska which will in another generation be rich and productive, is yet unexplored, to say nothing of being mapped and equipped with highways. There should be an organization capable of the readiest response to demands for roads and trails. No discovery of riches should be kept from national development for want of access to it. Alaska is so vast a region that merely to prospect it thoroughly is a matter of generations, with a far larger population than it now possesses. Roads constitute a prime need in every new country, and our long national experience in pushing our highways ahead of the onrolling wave of settlement ought to convince us that the broadest liberality towards roads in Alaska will be certain to bring manifold returns.

"Aside from all this, there is the necessity to provide feeders for the railroad which the government has built and is now operating. More than \$56,000,000 has been spent on this 500 miles of railroad. It was not built in the expectation of immediate or even early profit; rather, it stands in much the same relation to Alaska that the Union Pacific did to our widely separated ocean fronts, east and west, when it was constructed far in advance of economic justifications. It is a pledge, a testimony of faith, a declaration of firm confidence in the future of all Alaska. It is but a beginning, as the present road system is but a beginning; and I AM WILLING TO BE CHARGED WITH A PURPOSE OF SOMETHING LIKE PRODIGALITY IN MY WISH TO SERVE ALASKA GENEROUSLY, AND MORE, IN THIS MATTER OF ROAD BUILDING." . . .

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Kaltag Portage Suspension Bridge	" "
Snowslide Gulch, Mile 16, Richardson Highway	" "

REPORT UPON THE CONSTRUCTION AND MAINTEN-
ANCE OF MILITARY AND POST ROADS, BRIDGES,
AND TRAILS, ALASKA; and of other Roads, Tram-
ways, Ferries, Bridges, Trails and Related Works in
the Territory of Alaska.

REPORT OF THE BOARD OF ROAD COMMISSIONERS
FOR ALASKA.

James G. Steese President
Lunsford E. Oliver Chief Engineer
H. E. Fisher Secretary and Disbursing Officer

For description of Project Under This Commission see Part I
of this Report, contained in Annual Report of the Chief of Engineers,
United States Army.

STATUTORY AUTHORITY.

AN act to provide for the construction and maintenance of
roads * * * * * in the District of Alaska, and for other
purposes.

Be it enacted by the Senate and House of Representatives of
the United States of America in Congress assembled, That all
monies derived from and collected for liquor licenses, occupation
or trade licenses, outside of the incorporated towns in the Territory
of Alaska, shall be deposited in the Treasury Department of the
United States, there to remain as a separate and distinct fund, to
be known as the "Alaska Fund" and to be wholly devoted to the
purposes hereinafter stated in the Territory of Alaska * * * * *
* * * and all the residue (65% of total fund) of said fund shall
be devoted to the construction and maintenance of wagon roads,
bridges, and trails in said Territory * * * * *.

SECTION 2. That there shall be a board of road commissioners
in said district, to be composed of an engineer officer of the United
States Army to be detailed and appointed by the Secretary of War,
and two other officers of that part of the army stationed in said
district and to be designated by the Secretary of War. The said
engineer officer shall, during the term of his said detail and ap-
pointment, abide in said district. The said board shall have the
power, and it shall be their duty, upon their own motion or upon
petition, to locate, lay out, construct, and maintain wagon roads
and pack trails from any point on the navigable waters of said
district to any town, mining or other industrial camp or settlement.

or between any such towns, camps, or settlements therein, if in their judgment such roads or trails are needed and will be of permanent value for the development of the district; but no such road or trail shall be constructed to any town, camp, or settlement which is wholly transitory or of no substantial value or importance for mining, trade, agricultural, or manufacturing purposes. * * * * *

* * * * * In case no responsible and reasonable bid can be secured, then the work may be carried on with material and men procured and hired by the board. The engineer officer of the board shall in all cases supervise the work of construction and see that the same is properly performed. * * * * * It shall be the duty of said board, as far as practicable, to keep in proper repair all roads and trails constructed under their supervision, and the same rules as to the manner in which the work of repair shall be done, whether by contract or otherwise, shall govern as in the case of the original construction of the road or trail. The cost and expense of laying out, constructing, and repairing such roads and trails shall be paid by the Secretary of the Treasury, through the authorized disbursing officer of the board, designated by the Secretary of War, out of the road and trail portion of said "Alaska Fund" upon vouchers approved and certified by said board. * * * * *

* * * * * (Act of January 27, 1905, as amended by Acts of May 14, 1906 and March 3, 1913.)

Provided, That hereafter the Secretary of War may, in his discretion, assign suitable retired officers of the Army to active duty as members of the board of road commissioners for Alaska. (Act of March 3, 1911).

Provided, That hereafter, so long as the construction and maintenance of "Military and Post" Roads in Alaska, and of other roads, bridges, and trails in that Territory shall remain under the direction of the Secretary of War, he be authorized to submit such estimates for the consideration of Congress as are in his judgment necessary for a proper prosecution of the work. (Act of July 9, 1913). Hereafter when an appropriation for this purpose for any fiscal year shall not have been made prior to the 1st day of March preceding the beginning of such fiscal year, the Secretary of War may authorize the Board of Road Commissioners to incur obligations for this purpose of not to exceed 75 per centum of the appropriation for this purpose for the fiscal year then current, payment of these obligations to be made from the appropriation for the new fiscal year when it becomes available. (Act of Feb. 12, 1925).

Provided, That the Secretary of War is hereby authorized to receive from the Territory of Alaska, or other source, such funds as may be contributed by them to be expended in connection with

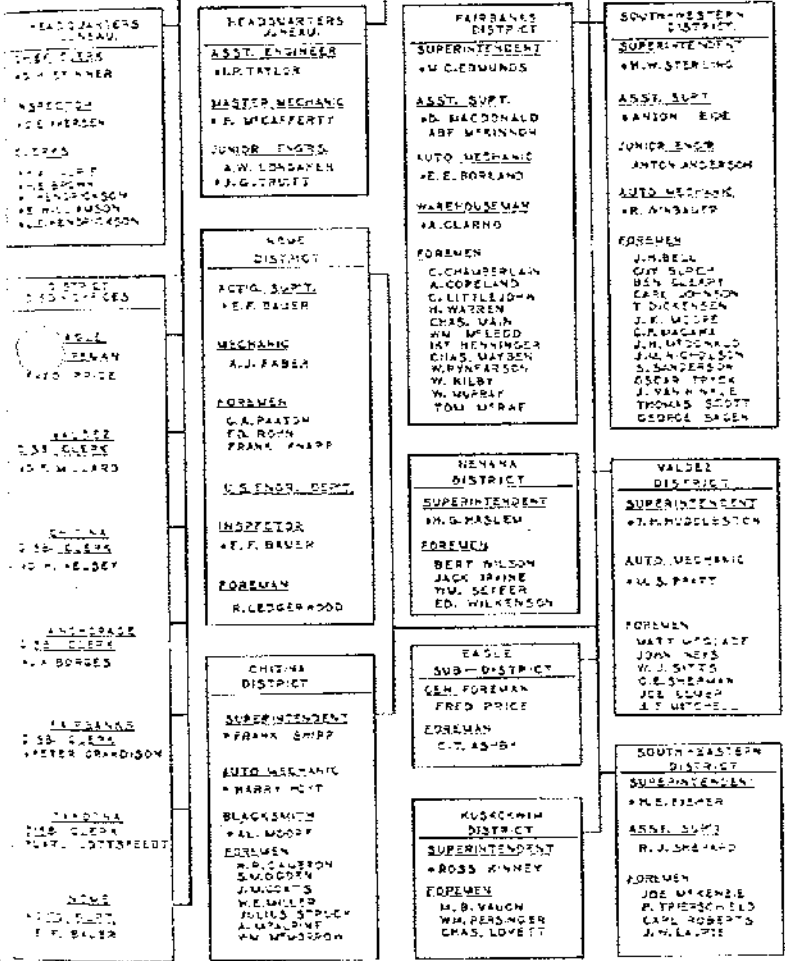
ORGANIZATION CHART

ALASKA ROAD COMMISSION AND U.S. ENGINEER DEPARTMENT
WORKING SEASON 1925

JAS. G. STEESE
PRESIDENT OF THE BOARD
AND
DISTRICT ENGINEER U.S.E.D.

H.E. FISHER
SECRETARY
AND
DISBURSING OFFICER

L.E. OLIVER
ENGINEER OFFICER



* PART-TIME YEAR, OTHERS PART-TIME ONLY

funds appropriated by the United States for any authorized work of construction, repair, and maintenance of roads, bridges, ferries, trails, and related works in the Territory of Alaska, and to cause such funds to be deposited to the credit of the Treasurer of the United States, and to expend the same in accordance with the purpose for which they were contributed. (Act of June 30, 1921).

CURRENT APPROPRIATION.

Construction and Maintenance of Roads, Bridges, and Trails, Alaska: For the construction, repair, and maintenance of roads, tramways, ferries, bridges, and trails, Territory of Alaska, to be expended under the direction of the Board of Road Commissioners described in Section 2 of an Act entitled "An Act to provide for the construction and maintenance of roads, the establishment and maintenance of schools, and the care and support of insane persons in the District of Alaska, and for other purposes" approved January 27, 1905, as amended by the Act approved May 14, 1906, and to be expended conformably to the provisions of said Act as amended \$900,000 to be immediately available. (Act of April 15, 1926).

OPERATIONS DURING THE FISCAL YEAR.

The work during the fiscal year ending June 30, 1926, was executed under appropriations for "Construction and maintenance of roads, bridges, and trails, Alaska, 1925-1926," approved Feb. 12, 1925; and "1926-1927," approved April 15, 1926; and from receipts from the "Alaska Fund" act of Congress approved January 27, 1905, as amended by act approved May 14, 1906. Work was also done which was covered by funds contributed by the Territory of Alaska, The National Park Service and others, Act of Congress approved June 30, 1921. The work consisted chiefly of maintenance and rehabilitation of existing roads, trails and bridges. The construction of several new projects was continued mostly under cooperative agreements with the Territorial Board of Road Commissioners and the National Park Service.

The roads constructed by this Commission are in general good wagon roads. However, a more substantial type of road has now been built in many places, upon which automobiles and light trucks can be used economically. The demand for roads of this type is increasing, and effort is made in each case to provide a gravel surface for the road.

ORGANIZATION.

The headquarters of the Commission are located at Juneau; a sub-office is maintained at Washington; D. C., as required. The Territory is divided into eight districts and two sub-districts with

boundaries as shown on the maps accompanying the district reports herein.

Each district is in charge of a superintendent. It is the duty of each superintendent to visit his working crews and to give them the necessary engineering supervision during the season. The foremen in local charge are in nearly all cases trained men who have been attached to this Commission for many years.

MACHINERY AND EQUIPMENT.

The following additional equipment was purchased during the fiscal year:

- 11 Trucks, Ford, 1 yd. dump.
- 5 Trucks, Ford, light cargo.
- 3 Tractors, Best 30.
- 1 Tractor, Fordson, with crawler tread.
- 3 Graders, Gilbert with Fordson tractor attached.
- 4 Graders, Tractor drawn (Adams).
- 2 Graders, Horse drawn (Adams).
- 1 Shovel, Gasoline, Byers $\frac{1}{2}$ yd.
- 1 Loader, Bucket, Power driven.
- 1 Compressor, Air, Portable.
- 1 Snow Plow, lateral rotary type.
- 4 Dump bodies, 1 yd., for Ford Trucks.

Additional quantities of surplus Army stocks suitable for this work have been received including:

- 25 Trucks, G. M. C. $\frac{3}{4}$ ton.
- 17 $\frac{1}{4}$ Tons Pyrotoi.
- Miscellaneous small surveying instruments and drafting supplies.

The high cost of labor and of maintaining horses has made necessary the prosecution of the greater part of our work with mechanical equipment.

The Commission is now well equipped to handle engineering construction anywhere in the Territory. Its major items of equipment include the following:

- 10 Auto Trucks, Dodge.
- 71 Auto Trucks, Ford.
- 39 Auto Trucks, G. M. C.
- 4 Auto Trucks, Packard.
- 1 Auto Truck, Pierce Arrow.
- 5 Auto Trucks, White.
- 1 Boiler, Piledriver.
- 2 Cars, Gasoline section.

- 4 Cars, Roller bearing push.
- 2 Compressors, air.
- 2 Crushers, Stone.
- 1 Drum, hoisting.
- 25 Drags, Road.
 - 1 Drag, planer.
 - 2 Drag lines, gasoline.
 - 2 Derricks, motor.
 - 2 Ditchers, road.
 - 1 Engine, Donkey.
 - 9 Engines, Hoisting.
- 14 Graders, road, tractor drawn.
- 22 Graders, road, horsedrawn.
 - 4 Graders, power with Fordson Tractor.
 - 4 Jackhammers.
 - 4 Levels, surveying.
 - 1 Loader, bucket, power driven.
 - 1 Locomotive, Fordson.
 - 2 Machines, mowing.
 - 1 Mixer, concrete.
 - 4 Piledrivers.
- 51 Plows.
 - 1 Plow, Snow, lateral rotary type.
 - 3 Radio outfits.
 - 8 Rollers, road.
 - 3 Saws, power driven.
 - 1 Scarifier.
- 78 Scrapers, slip.
 - 10 Scrapers, wheel.
 - 2 Scrapers, Fresno.
 - 1 Shovel, $\frac{3}{4}$ yd. steam.
 - 3 Shovels, $\frac{1}{2}$ yd. gasoline.
- 70 Sleds, bob.
 - 8 Tractors, Best 30.
- 16 Tractors, Holt.
 - 1 Tractor, Case.
 - 1 Tractor, Fordson, crawler track.
 - 2 Tractors, Titan.
 - 1 Tractor, Yuba.
- 36 Trailers, Highway.
 - 3 Transits, surveying.
- 83 Wagons.
 - 1 Welding outfit.
 - 5 Winches, hand.

PROGRESS OF THE WORK.

The high scale of wages and supplies in the Territory is a large element in the cost of this work. The rate paid for labor varies from \$3.50 to \$6 per day with board for common labor. The cost of subsistence and forage is also correspondingly high. Besides these high costs, the nature of the work in Alaska adds to the cost in a way to make comparisons with road work in the United States difficult. In the roads built here the cruising, clearing, grubbing and construction of the road includes all work done upon the roads in the settled parts of the United States from pioneer days. Even with this the mileage cost of our roads can be looked upon with a great deal of gratification.

In the classification of the Commission, wagon roads are any roads cleared, grubbed, ditched, graded, and drained sufficiently to accommodate wagon traffic. Light motor vehicles are now using these roads in increasing numbers. This requires a gravel surface at an increased first cost, but with an eventual saving in annual maintenance charges.

Sled roads are cleared and grubbed like wagon roads, but not graded. They are drained only sufficiently to prevent their destruction by the summer rains. Their wearing surface is of snow. Double bob-sleds, drawn by two, four, or more horses haul heavy loads over these roads as well as over the wagon roads in winter time. During the past few seasons, caterpillar tractors have been successfully used during the winter time, and such traffic is expected to increase.

Trails include any construction less than the above, suitable for dog-sleds or single horse-drawn double-ender in winter and pack trains in summer. Except where frozen river surfaces are used, some work is always necessary to permit the use of dog teams.

Flagged Trails represent cut-offs across frozen lakes, arms of the sea, etc. The marks are necessary to prevent travelers from getting lost in bad weather.

Since assuming charge at the beginning of the 1920 working season, the present Commission has been engaged in overhauling the entire road and trail situation, rehabilitating or abandoning the projects which have fallen into disrepair or disuse, drawing up a progressive and comprehensive plan of operations covering a period of years, and extending the road and trail system to meet actual needs.

The total mileage of roads and trails constructed by the Commission during its first sixteen years of existence (1905-1920) aggregated 4,800 miles, consisting of 1,031 miles of wagon road, 636 miles of sled road, and 3,223 miles of trail. In addition some 712 miles of temporary trail have been flagged as required.

Not all of this mileage has been maintained year by year; some has been in disuse or practically impassable for many years and a small mileage has been superseded by other routes or methods of transportation as will appear more in detail below.

The specific routes included in this 5,602 miles are enumerated in Tables I and IV, Annual Report for 1921. The following table summarizes the status of the work of investigation and rehabilitation begun six years ago and now practically completed.

STATUS	MILEAGE					Grand Total
	Wagon Road	Sled Road	Trail	Total	Flagged	
1920 Report	1,031	636	3,223	4,890	712	5,602
ADDITIONS:						
New Mileage	555 $\frac{1}{2}$ *	563 $\frac{1}{2}$	4,611 $\frac{1}{2}$	5,729 $\frac{1}{2}$	.....	5,729 $\frac{1}{2}$
Reclassified	172	234 $\frac{1}{2}$	85	471 $\frac{1}{2}$	.....	471 $\frac{1}{2}$
GRAND TOTAL	1,758$\frac{1}{2}$	1,424	7,899$\frac{1}{2}$	11,482$\frac{1}{2}$	712	11,794$\frac{1}{2}$
DEDUCTIONS:						
Transferred to other Bureaus	117 $\frac{1}{2}$	9	45 $\frac{1}{2}$	172	.....	172
Reclassified	13 $\frac{1}{2}$	205 $\frac{1}{2}$	252 $\frac{1}{2}$	471 $\frac{1}{2}$	.....	471 $\frac{1}{2}$
Abandoned or dropped account duplication of routes	91 $\frac{1}{2}$	123 $\frac{1}{2}$	936	1,147 $\frac{1}{2}$	.....	1,147 $\frac{1}{2}$
NET TOTAL	1,533$\frac{1}{2}$*	1,086	6,671$\frac{1}{2}$	9,291	712	10,093
Special Work 1926	90 $\frac{1}{2}$	.....	54	144 $\frac{1}{2}$	.....	144 $\frac{1}{2}$
Work 1925	168 $\frac{1}{2}$	137	2,771	3,019 $\frac{1}{2}$	343 $\frac{1}{2}$	3,362 $\frac{1}{2}$
A. C. Work 1925	1,334 $\frac{1}{2}$	949	3,843 $\frac{1}{2}$	6,127	368 $\frac{1}{2}$	6,495 $\frac{1}{2}$

*—Includes 100 miles of tramroad.

From the above table it will be noted that the present system aggregates 10,093 miles, consisting of 1,433 $\frac{1}{2}$ miles of wagon road, 100 miles of tramroad, 1,086 miles of sled road, 6,671 $\frac{1}{2}$ miles of trail, and 712 miles of temporary flagged trail. The net gain in mileage for the six year period has been 4,401 miles, including 402 $\frac{1}{2}$ miles of wagon road, 100 miles of tramroad, 450 miles of sled road, and 3,448 $\frac{1}{2}$ miles of trail.

During the past fiscal year the expenditures were distributed over the following mileage:

DISTRICT	Wagon Road	Sled Road	Trails	Flagged Trails	Total
Southeastern Alaska	79	.....	6	.....	84
Eagle	29	115	380	.....	524
Dethel .....	.....	.....	383	.....	383
Valdez	195	.....	.....	.....	195
Chitina	214 $\frac{1}{2}$	.....	105	.....	320 $\frac{1}{2}$
Fairbanks	338 $\frac{1}{2}$	203 $\frac{1}{2}$	301	.....	842 $\frac{1}{2}$
Nenana	103 $\frac{1}{2}$	397 $\frac{1}{2}$	503	.....	1,004
Southwestern Alaska	154 $\frac{1}{2}$	159 $\frac{1}{2}$	117	.....	441 $\frac{1}{2}$
Kuskokwim	52	47 $\frac{1}{2}$	689 $\frac{1}{2}$	.....	739
Nome	258 $\frac{1}{2}$	16	1,409	368 $\frac{1}{2}$	2,052
TOTALS	1,334$\frac{1}{2}$	949	3,843$\frac{1}{2}$	368$\frac{1}{2}$	6,495$\frac{1}{2}$

14 ANNUAL REPORT ALASKA ROAD COMMISSION.

The Commission has expended the following funds since the beginning of road and trail development in the Territory:

FEDERAL APPROPRIATIONS:

Alaska Fund, 1905-1920	\$ 2,155,030.92*
War Dept. Acts, 1905-1920	3,058,041.44**
Increase of Compensation, 1913-1920	145.20
U. S. Treasury Adjustments, 1905-1920	22,870.76
Alaska Fund, 1921-1926	778,901.81
War Dept. Acts, 1921-1926	8,862,676.90
Increase of Compensation, 1921-1925	94,931.25
National Park Service, 1925-1926	130,020.00
Total	\$10,090,617.78

CONTRIBUTED FUNDS:

Territory of Alaska, 1920	\$ 101,184.56
Territory of Alaska, 1921-1926	610,590.88
Miscellaneous, 1922-1926	10,772.09
Total	\$ 722,547.33

Grand Total	\$10,813,165.11
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*Includes the following adjustments:

Appropriations	\$ 2,123,583.65
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ADDITIONS:

Receipts, from sales	\$48,094.14	
Repayments, voucher corrections	1,326.68	50,020.82
Total		\$ 2,173,606.47

DEDUCTIONS:

Disbursing officer shortage ***	18,575.55
Net Total	\$ 2,155,030.92

**includes the following adjustments:

Appropriations	\$ 3,055,000.00
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ADDITIONS:

Navy Dept. reimbursement	\$ 3,976.19	
Repayments, voucher corrections	291.80	4,267.99
Total		\$ 3,059,267.99

DEDUCTIONS:

Disbursing officer shortage***	1,226.55
Net Total	\$ 3,058,041.44

***Defaulting officer was dismissed the service by G. O. No. 4, War Dept., Washington, D. C. Feb. 17, 1912.

In addition to the above funds, disbursed through the U. S. Treasury, the Commission has supervised the expenditure of the following funds disbursed by other agencies for road and trail development:

Road tax, labor, and miscellaneous contributions, 1905-1920	\$ 200,000.00
Department of Agriculture, 1920	202,702.67
Quartermaster General, 1901-1903	100,000.00*
Chief of Engineers, 1904-1905	34,621.78*
Territorial Funds and Forest Revenues Prior to 1921	684,232.64**
Territorial Divisional Commissioners, 1921-1925	112,300.53
Territorial Divisional Commissioners, 1926	22,242.88
Seward Peninsula Tramway, 1923	24,044.00
Tolovana Tramway, 1924	6,425.00
Mt. McKinley National Park, 1924	700.25
Katag Portage Survey, 1925	312.72
Miscellaneous, 1926	8,276.25
Total	\$ 1,395,545.69

*Expended prior to organization of the Alaska Road Commission.
 **Expended prior to supervision by the Alaska Road Commission.

Free Service on The Alaska Railroad.

All branches of the Government service have heretofore received free regular transportation over the Government Railroad but have paid for special service such as switching, shopwork, supplies, special transportation, etc. Effective July 1, 1926, all such service must be paid at tariff rates. The value of such free service received by the Commission is shown in the following table:

Calendar Year	Passenger	Freight	Telegraph and Telephone	Dockage	Total
1920	\$ 1,318.09	\$ 3,436.83	\$ 153.32	\$ 2.04	\$ 5,460.30
1921	1,965.55	3,714.97	432.22	266.32	6,429.06
1922	2,294.39	12,687.88	447.69	406.25	15,836.03
1923	4,021.59	25,332.23	575.33	205.97	30,464.93
1924	5,470.99	37,038.93	1,538.53	1,914.39	45,980.86
1925	4,536.57	35,652.56	1,101.98	548.69	42,198.71
	329,465.91	3,117,941.49	44,618.98	33,343.59	3,146,389.69

COST OF MAINTENANCE

The annual cost of maintenance of routes in Alaska varies considerably with the locality, the range of climate being greater than that of the United States, and the cost of labor varying greatly. The experience of this Commission indicates that for all Alaska proper, average maintenance costs, including a fair allowance for floods, etc., are about as indicated in table following:

Classification	Mileage	Annual Maintenance per mile	Total
Wagon Roads	1,533 1/2	\$300	\$460,050
Sled Roads	1,986	25	27,150
Trails	6,671 1/2	10	66,715
Flagged Trails	712	3	2,136
Totals	10,003	\$55.59	\$556,051

The above does not provide for any improvements or extensions. The intermediate, or interior, sections of many of the through routes need improvement to the same standard as the rest so that the entire route may be used throughout by the same traffic without the necessity of breaking loads. A certain amount of new work on extensions must be provided for each year to keep pace with developments. This has only been possible up to the present time at the expense of needed maintenance work.

INSPECTION

The magnitude of the task and extent of territory covered by the wide-flung activities of this Commission may be realized from the fact that it would take two years of continuous traveling with the best facilities available for a single individual to make a complete inspection of the entire mileage for which the Commission is responsible.

Actually the President and the Engineer Officer spend about 80% of their time in the field. They have visited every district and have inspected most of the sub-projects a number of times. The Secretary and Disbursing Officer has been engaged in overhauling the property, accounts and office methods and has made a tour of inspection of the district offices to standardize methods and accounts.

FEDERAL AID.

The provisions of the Federal Aid Road Acts do not apply to the Territory of Alaska. The original Federal Aid Road Act was approved July 11, 1916, and was amended by the Act approved February 28, 1919. The Federal Highway Act of November 9, 1921, as supplemented and amended, is now the basic law governing federal aid road work.

The extension of the Federal Aid Road Acts to Alaska has been proposed. In view of the fact that nearly 12 years before the federal aid idea was adopted, the Alaska Road Commission had been created by Congress in 1905 to meet the special conditions in Alaska, had the work well in hand; and in view of the further fact that the theory, specifications, methods, etc., of the federal aid do not meet the conditions in the Territory, Congress has instead increased the powers and appropriations of the Alaska Road Commission.

DEPARTMENT OF AGRICULTURE.

While the provisions of the Federal Aid Road Acts do not apply to the Territory, the provisions of the same acts relating to roads in the National Forests do apply to the Tongass and Chugach National Forests which constitute about 5% of the area of the Territory. As these forest funds require Territorial cooperation, the amounts accruing under the Acts of 1916 and 1919 stood idle until the passage of the Territorial Cooperative Road Act approved April 21, 1919 (Chapt. 11, Session Laws of 1919). The funds then released and subsequent funds are expended under the direction of the Secretary of Agriculture, represented locally by the U. S. Forest Service. In addition to the cooperative funds, the Act of 1921 and subsequent acts released additional forest funds for the expenditure of which cooperation is not mandatory.

Until July 1, 1920, the President of the Alaska Road Commission acted as the representative of the Department of Agriculture and supervised the performance of work and the expenditure of these cooperative funds within the National Forests, as all projects were former projects of this Commission. Until May 1, 1922, the Forest Funds were inadequate to take care of the projects

in the National Forests already under construction under the Alaska Road Commission. The latter, therefore, continued to allot part of its own funds to these projects under a tripartite agreement to which the Territory, the Forest Service, and the Alaska Road Commission subscribed.

Since July 1, 1920, the Department of Agriculture has maintained a separate road building organization, a branch of the Bureau of Public Roads, in the Territory. Since May 1, 1922, it has assumed responsibility for all projects within or partly within the National Forests. To these projects the Territory contributes part of its funds under such cooperative agreements as may be required. The funds of the Alaska Road Commission, heretofore allotted to these projects, are thereby released for expenditure in the other 95% of the Territory.

The National Forests both lie along the sea-coast; the Tongass National Forest including most of Southeastern Alaska; the Chugach Forest including the Prince William Sound region, the shore line of Kenai Peninsula, and the east shore of Cook Inlet. Due to the rugged character of these sections of the Territory and to the excellent system of sheltered waterways, the main transportation will always be by water. Most of the projects in the National Forests, therefore, consist of short recreational roads in the neighborhood of the principal towns, or from minor ports to agricultural or mining districts lying in the immediate hinterland. In general they do not tie into the main overland transportation system of the Territory.

TERRITORIAL ROAD LEGISLATION.

For a résumé of Territorial road legislation, see Part II. Annual Report for 1924, beginning on page 17.

The following Territorial funds have been appropriated and expended to March 31, 1926:

Appropriations:

Forest Revenues to June 30, 1925	\$ 214,448.49
April 30, 1917 Shelter Cabins	20,000.00
May 2, 1917 Roads, Bridges, Trails and Ferries	400,000.00
May 2, 1917 Nizina Bridge	25,000.00
May 1, 1919 Shelter Cabins	5,000.00
May 1, 1919 Roads, etc.	375,000.00
May 5, 1921 Nizina River Bridge	25,000.00
May 5, 1921 Seward Peninsula Railway	24,014.00
May 7, 1921 Shelter Cabins	15,000.00
May 7, 1921 Roads, etc.	240,000.00
May 2, 1923 Ikolovana Tram	6,125.00
May 4, 1923 Roads, etc.	240,000.00
May 1, 1923 Shelter Cabins	15,000.00
May 5, 1923 Kaltag Portage Survey	312.72
April 30, 1925 Roads, etc.	200,000.00
April 30, 1925 Shelter Cabins	20,000.00
April 30, 1925 Telephone Lines	1,000.00
Deposits from sales, 1925	415.00

Total appropriated to March 31, 1927 \$1,884,615.21

Expenditures:

Expended by Territory prior to April 1, 1921	\$ 654,239.64
Expended by Territory, April 1, 1921 to March 31, 1925	11,930.39
Supervised by A. R. C. 1921-1925	165,295.10
Cooperative with A. R. C. 1920-1925	704,334.35
Cooperative with Forest Service 1920-1925	170,882.89
Total expended to March 31, 1926	\$1,736,732.37
Balance, April 1, 1925	117,882.84
Total	\$1,854,615.21

From the \$260,000 appropriated by the Act of April 30, 1925, the Territorial Board is authorized to provide for the following special projects, if in its judgment found desirable:

Chapter 46, Aviation Fields, 4th Division	\$20,000
Chapter 61, Aviation Field, 2nd Division	5,000
Chapter 61, Maintenance, Nome Harbor	5,000
Chapter 62, Aviation Fields or Seaplane Moorings, 3d Division	10,000
Chapter 69, Nizina-Chisana Trail	6,000

TERRITORIAL BOARD.

The Territorial Board of Road Commissioners, as now constituted, is composed of the following:

Geo. A. Parks, Governor of the Territory	Chairman
Karl Theile, Secretary of the Territory	Secretary
Walstein C. Smith, Territorial Treasurer	Member
Robert J. Sommers	Territorial Highway Engineer

LOCAL COOPERATION.

For a résumé of past cooperative agreements, see Part II, Annual Report for 1924, beginning on page 20.

Under the authority of the Territorial Cooperative Road Act, approved April 21, 1919, and the Act of Congress approved June 30, 1921, the Commission made additional cooperative agreements for the prosecution of work supported in part by federal funds and in part by funds appropriated by the Territorial Legislature. In the first and second divisions, Southeastern and Western Alaska, respectively, no divisional chairmen were appointed during the past year, all available funds being allotted to cooperative projects. In the other two divisions, superintendents of the Commission were appointed chairmen of the respective territorial commissions.

The President of the Commission continued to serve as Director of Public Works for the Territory and supervised the work of the Divisional Chairmen as well as the other work supported by ap-

appropriations of the Territorial Legislature. No Territorial road building organization has been maintained since March 1, 1921.

The following general road funds were expended on territorial projects during the fiscal year:

Cooperative Projects:

Alaska Road Commission Funds	\$ 66,772.91
Territorial Funds	191,765.00
Miscellaneous Contributions	2,818.61
Total	\$191,356.52

Divisional Projects:

Chairman, Third Division	\$ 9,582.86
Chairman, Fourth Division	12,360.00
Total	\$ 22,242.86

Special Projects:

Shelter Cabins, Territory, 2nd Division	2,672.08
3rd Division	3,270.03
4th Division	3,773.20
Aviation Fields, Territory, 2nd Division	2,500.00
4th Division	7,726.08
Telephone Lines, Territory	2,149.10
Nome Harbor, Territory	2,500.00
Seward Peninsula Tramway, A. R. C. Funds	28,049.25
Tolovana Tramroad, A. R. C. Funds	4,189.59
Nizina Bridge, A. R. C. Funds	5,576.35
Total	\$ 60,708.78

Grand Total \$274,366.56

For the working season of 1926 (fiscal year 1927) the Territorial Board has allotted to the Department of Agriculture \$29,325.00 and to the Alaska Road Commission the following amounts:

Cooperative Projects	\$ 68,000.00
Shelter Cabins	8,624.34
Aviation Fields	14,773.22
Telephone Lines	1,850.00
Nome Harbor	2,500.00
Total	\$ 98,749.16
Chairman Third Division	\$ 16,217.14
Chairman Fourth Division	16,440.00
Grand Total	\$125,406.30

The \$8,624.34 for shelter cabins and \$2,273.92 of the funds for aviation fields have been deposited. The balance is held subject to the call of the Federal Commission. The existing balance of \$11,431.61 in the contributed funds includes a balance of \$533.35 available for further work on the Nome Wharf.

The Cooperative Road Act has worked satisfactorily under the conditions imposed. Certainly, the amount of road work accomplished for the money expended has been far in excess of anything heretofore possible. Had the Territory attempted to expend its

\$30,000 per division under an independent organization, nearly one-third of the available funds would have gone into overhead, salary and expenses of a divisional chairman and clerk, rent, light, etc. All of this service was furnished free by the Alaska Road Commission and at no additional cost to itself. In addition, the extensive plant and mechanical equipment of the Alaska Road Commission, representing a capital investment of over \$500,000, were furnished where available in the Territorial work without extra charge except for fuel and ordinary running repairs. Due to the extensive organization of the Alaska Road Commission, it has also been possible to apply Territorial money to outlying projects where the maintenance of an independent organization would have been impossible or prohibitive in cost. Finally, all available money is lumped together and expended upon a comprehensive system with a continuity in plans and a consistency in operations over an extended period of years.

The Alaska Road Commission, also, is a gainer under the Cooperative Road Act. By having greater funds available, it is able to consolidate purchases and supplies and thus to secure better prices. Conflicts in plans and complications in operations are avoided. By having funds becoming available all the year round, the difficulties resulting from fiscal year appropriations beginning or terminating about the middle of the open working season are minimized, and the entire organization and conduct of operations, are rendered more flexible.

As an evidence of the importance of the work of the Commission and its standing locally, there is quoted Senate Joint Memorial No. 3, passed unanimously by both houses of the Territorial Legislature in Seventh Session Assembled, on April 21, 1925, as follows:

To the President, the Secretary of War, the Senate, and the House of Representatives, of the United States:

Your memorialists, the Legislature of the Territory of Alaska, in Seventh Regular Session assembled, do most respectfully and earnestly represent that:

Whereas, the War Department has always taken a leading part in the development of our frontiers and held together remote and sparsely settled communities in our Great West until such development had taken place that local interests could take over this duty, and the War Department is still performing similar functions in the Territory of Alaska; and

Whereas, the Alaska Road Commission under the supervision of the War Department, has, during the past twenty years, worked

and a comprehensive system of roads and trails, which have greatly aided development in all sections of the Territory, and has, since its reorganization in 1920, secured increased funds and more liberal legislation, so that it is now prepared to complete its program in a reasonable time, thereby permitting routes to be utilized throughout without breaking loads; and

Whereas, the officers of the Alaska Road Commission are also charged with handling engineering work for many other Federal and Territorial services, which they are accomplishing most efficiently and economically; and

Whereas, the Territory of Alaska is not in a financial position to take over the road and trail work as a part of its own interior development, nor even to maintain the existing system, but is contributing to the limit of its resources in aid of this work; and

Whereas, Section 391 (c) of S. 3445 and H. R. 9629 reported at the last session of the last Congress by the Joint Committee on the Reorganization of the Executive Branch of the Government, would abolish the Alaska Road Commission, without creating another agency to take its place, but transfers direct control of the road and trail work to a Department in Washington, D. C., without providing for the other activities handled under its direction; and

Whereas, the proposed legislation is objectionable, in that it abolishes a going concern, which was specially created for the work at hand, has grown up with the country, and has justified itself by its accomplishments; is inefficient in that it transfers direction of the work from a Board resident in the Territory, with full authority "of its own motion" to meet emergencies and to handle its business on the ground without reference to Washington, to a Department in Washington, with all the attendant delays and unbusinesslike methods that are such a conspicuous feature of the usual handling of Alaskan affairs; and is uneconomical in that it recreates in Alaska the very condition it purports to relieve in the United States, by requiring the creation of at least one new organization, under a different Department, to handle only part of the work now being handled by the Alaska Road Commission, its other functions still remaining in the War Department.

Now, therefore, be it Resolved, That the Legislature of the Territory of Alaska heartily endorse the work of the Alaska Road Commission and pray that it may continue to have the support of the War Department and of Congress to the end that its appropriations may continue to be increased, its powers broadened and construction on its excellent and comprehensive program of road and trail building speeded up.

Be it Further Resolved, That it is the earnest desire of the Legislature of the Territory of Alaska that the Alaska Road Commission shall continue to be composed of Officers of the Corps of Engineers of the Army serving under the supervision of the War Department, and that Section 301 (c) shall be stricken from S. 3445 and H. R. 9629, or any similar provision in any new legislation proposed during the next session of Congress.

And your memorialists will ever pray.

ADDITIONAL OPERATIONS OF THE COMMISSION OR OF ITS MEMBERS.

The following additional duties have been imposed upon the members of the Commission by appropriate authority:

- (a) By par. 3, S. O. No. 50-9, War Department, Washington, D. C., March 9, 1921, and under the provisions of Acts of Congress approved June 17, 1910, and June 15, 1917, the President of the Commission, in addition to his other duties, has been detailed for consultation or to superintend the construction or repair of any aid to navigation authorized by Congress, in the Sixteenth Lighthouse District (includes the Territory of Alaska). He reported by letter to the Secretary of Commerce. In 1922 he served as a member of a special Commission, headed by the Assistant Secretary of Commerce, to investigate conditions on the Russian, Japanese, and American fur-seal rookeries of the North Pacific.
- (b) Effective April 1st, 1921, the Juneau, Alaska engineer district was created by G. O. No. 1, War Department, Office of the Chief of Engineers, Washington, February 21, 1921. The President of the Commission, in addition to his other duties, was appointed District Engineer; the other two members of the Commission were placed under the immediate orders of the District Engineer and the Secretary and Disbursing Officer of the Commission was, in addition, designated as Disbursing Officer for the district. The Alaska district does not form a part of the Northern Pacific Division; the District Engineer reports direct to the Chief of Engineers. Detailed report of the operations of the Alaska District will be found in the Annual Report, C. of E.
- (c) Effective November 14, 1921, the President of the Commission was appointed Consulting Engineer for the Territory and assumed direct charge of all Territorial public

works. Effective May 10, 1923, he was appointed Director of Public Works for the Territory.

By letter of the Secretary of War, dated December 6, 1921, the President of the Commission was designated as the War Department representative upon the Inter-Departmental Alaska Council. He so served until the Council was abolished in May, 1923.

By informal arrangement, effective April 1, 1922, the President of the Commission agreed to act for the National Park Service, Department of the Interior, on certain matters relating to the improvement of the Sitka National Monument and the development of Mount McKinley National Park.

By direction of the President, War Department and Interior Department orders were issued on February 13, 1923, detaching the President of the Commission, in addition to his other duties, to duty with the Government railroad in Alaska under the provisions of an Act of Congress approved March 12, 1914.

He was appointed Chairman and Chief Engineer of the Alaskan Engineering Commission. He took over the management of The Alaska Railroad and allied activities of the Alaskan Engineering Commission as of March 24, 1923.

The Alaskan Engineering Commission was abolished on August 15, 1923, upon the recommendation of the Chairman thereof, and the designation "The Alaska Railroad" substituted therefor.

On October 1, 1923, the joint management of the roads and railroad was terminated. The President of the Alaska Road Commission remained Chairman of The Alaska Railroad until March 17, 1924, to handle estimates, Congressional hearings, and other matters in Washington, D. C. He had no railway operating functions or responsibilities in Alaska after October 1, 1923.

At the request of the Secretary of the Interior, the Commission made a survey and submitted a special report upon the control of Lowell Creek, Seward, Alaska, to protect government property in the vicinity from damage due to floods.

At the request of the Quartermaster General of the Army, the Commission has agreed to assume charge of the ad-

ministration of the Sitka National Cemetery created by Executive Order of June 12, 1924.

- (i) At the request of the Quartermaster General of the Army, the Commission submitted a special report upon the water supply system of Chilkoot Barracks, Alaska, and has assumed charge of the construction of a million gallon concrete reservoir and repairs to the pipe line crossing Chilkat Inlet.

CONSOLIDATED ENGINEERING ORGANIZATION

The practical result of the foregoing orders has been the development, without legislation, but through executive order or inter-departmental or inter-bureau agreement, of a practical working arrangement through which the facilities of all the services involved are used interchangeably, but a careful account is kept so that each appropriation is eventually expended for the purpose intended by Congress and no appropriation is either increased or diminished by such interchange of working funds or facilities. Separate accounts and reports are rendered to the departments under the direction of which the work is performed.

The result has been an immediate speeding up of development work upon a unified plan based upon a careful survey of the situation, a thorough knowledge of the entire Territory and its problems, and a coordination of all the various conflicting interests after full hearings before all parties at issue. Instead of interminable references between different bureaus which formerly sometimes required papers to travel to Washington and back several times, matters are handled promptly upon the ground, or where the approval of Washington is required, such approval has usually been obtained by a single telegram covering the various angles or the views of the bureaus concerned.

The following are the current activities under consolidated engineering direction:

The construction, repair, and maintenance of federal roads, tramways, ferries, bridges, trails, and related works, now aggregating over 19,000 miles, and extending from open-all-the-year-round south coast ports to all inhabited parts of the Territory; Territorial roads, bridges, ferries, aviation fields, telephone lines and trails throughout the Territory, covered by cooperative agreements; shelter cabins; Nizina River Bridge; Nome-Shelton Tramway (87 miles operated by cars drawn by dogs); Tolovana Tramway; improvement of Nome Harbor; Improvement of Wrangell Harbor;

Improvement of Wrangell Narrows; the preliminary examination of survey of Tolovana River, Ketchikan Creek, Hyder Harbor, Saxman Harbor, Port Alexander, Wrangell Harbor, Seward Harbor, Yukon River at Fort Yukon, and Yukon River at Holy Cross; the investigation of port facilities; the survey and design for a Government wharf at Juneau; the issuance of permits for fish traps and other structures in the navigable waters along the Territory's 26,000 mile coast line; miscellaneous inspections, public hearings and contingencies of Rivers and Harbors; improvement of Sitka National Monument; development of Mt. McKinley National Park; improvement of Chilkoot Barracks Water Supply; administration of Sitka National Cemetery; Lowell Creek Survey; and Nome-Shelton-Kawalik Reconnaissance.

ALASKA TRANSPORTATION PROBLEMS.

In order that the difficulties of transportation within Alaska may be fully appreciated it is necessary for one to visit the Territory and to traverse parts of it not yet provided with roads or trails. To one gifted with a good imagination the following brief description will indicate the difficulties in part.

Alaska is a frontier country of vast area, about one-fifth that of the United States proper. With its population of about 27,000 whites and an equal number of natives it is in about the same stage of development as was our great western frontier at the time just preceding the Civil War. There are many reasons why Alaska will not develop so rapidly, however, one of the most important of which is the great difficulty encountered in transportation.

This is essentially a country of very bold relief. Along the entire southern coast line, from Portland Canal east of Ketchikan to False Pass at the southwest extremity of the Alaska Peninsula mountain ranges rise, abrupt and rugged, direct from the sea. This continuous chain of mountains along the coast has done much to retard the development of Alaska since it presents to the visitor a forbidding and discouraging aspect and it has always greatly increased the difficulties of access to the interior.

Beyond these mountains there lies a broad stretch of rolling inland country comprising the valleys of the Copper, Susitna and Nushagak Rivers. The two first named are the only rivers of any size that break through the continuous chain of coast ranges to drain into the Pacific Ocean. The Nushagak flows parallel to the coast range and drains into Bering Sea. Within the valleys of the Copper and Susitna rivers rise two very rugged mountain groups, the Wrangell and Talkeetna ranges.

Beyond the valleys of the Copper and Susitna rivers the Alaska Range, which may be called the backbone of Alaska, rises to great heights. It includes Mt. McKinley, the highest mountain of North America and the highest in the world in relation to the territory immediately surrounding it. The Alaska Range is broken by numerous narrow but excellent passes and has had no such ill effect on the territory as have the somewhat less high mountains which fringe the coast.

Beyond the Alaska Range there is a vast country, rolling and in part mountainous, which comprises the valleys of the Kuskokwim and of the Yukon with its two main tributaries, the Tanana and the Koyukuk. The lower valleys of the Kuskokwim and Yukon are flat delta.

The Brooks Range, consisting of mountains that are neither especially high nor very rugged, separates the valleys above mentioned from a vast stretch of rolling tundra which stretches to the Arctic Ocean.

The subsoil of the vast interior of Alaska is permanently frozen. This is a condition handed down from a preceding period when the climate of Alaska was much colder than at present. For about four months during the summer the average temperature is about 55° to 60° while the temperatures above 90° are not rare. The surface thaws and the warmth, together with the long hours of daylight, causes vegetation to grow very rapidly. The resultant thick layer of moss and dead vegetation prevents the ground from thawing to any great depth. Where this layer of moss and dead vegetation is removed thawing does continue to bed rock, or at least to very considerable depths.

The frozen condition of the subsoil prevents the drainage of the surface by seepage while the accumulated moss and dead vegetation greatly retards surface drainage. The result is that in proceeding across country in Alaska in its normal condition in summer one wades through a peat-like muck, water soaked and ankle to knee deep. The going is made rough by the profusion of bunches of grass root growth known locally as "niggerheads."

The above condition, varied only in degree, exists all over Alaska with the exception of the narrow fringe along the southern coast. Movement across country is further complicated, except on the Seward Peninsula and on the Arctic slope, by the presence of scrub timber, much of which is fallen and which must be cleared to permit ready passage.

Movement of a wheeled vehicle without a prepared roadway is impossible everywhere except along a sand or gravel beach or along the gravel beds of the smaller streams.

Many of Alaska's streams are of glacial origin. In these the water is very cold and heavily laden with silt and the current is very swift. Quicksand is often encountered. Such streams are always crossed at considerable hazard.

Alaska is well provided with navigable streams which now serve the same purpose in the Territory as did the rivers in the past before the construction of the railroads. The Yukon, Kuskokwim, Innoko, Iditarod, Koyukuk, Tanana, Kantishna, and Tolovana rivers, together with The Alaska Railroad, the Copper River and Northwestern Railway, the White Pass and Yukon Railway, and the Richardson Highway form main highways of commerce. From the steamer or from points on these main highways freight is moved still closer to its destination on the smaller streams in flat draft scows pulled by horses.

During the winter, extending on an average for the whole interior country from November first to April tenth, the streams are frozen over and the ground covered with snow and movement is much less difficult. The stream beds generally form excellent routes for movement by dogsled or horse-drawn sleds. Trails for dog teams and sled roads for the heavier sleds drawn by horses or tractors are constructed at relatively little expense by clearing a way through the timber, constructing occasional bridges over slides and open streams, and grading down the especially steep approaches to frozen streams. Winter travel on the large streams is more or less hazardous though, due to danger from overflows or of going through holes or thin places in the ice. The trails are normally being relocated off the river in such places.

During the period from October tenth to November first and from April tenth to May tenth, as an average for the interior country, the streams are just freezing or thawing, movement on or across the streams is impossible on account of running ice, and travel is at a standstill except on the railroads.

The universal occupation of the Interior of Alaska is mining. The product is gold. It can be transported by any available means from any point at which it is produced. Other minerals can be mined profitably at present only at localities where railroad or water transportation is immediately available. It follows that in general the problem is to transport supplies of all kinds to the point of consumption rather than from the point of production.

The average cost of transporting a ton of freight one mile by bobsled on a winter sled road, as shown by the table on page 30, is 37c as compared with a cost for summer movement of 50c by auto truck or \$1.23 by wagon. It follows that for isolated mines and small mining communities in the remote interior the construction of wagon and automobile roads is not warranted.

It is the policy of this Commission to construct sled roads and summer pack trails to such localities from the nearest point on navigable water or on the railroad. If developments warrant, the summer trail can later be improved into a wagon road. Supplies for such points for use during a certain summer must be delivered at the head of navigation during the preceding summer and freighted over the snow during the preceding winter. The small amount of perishable or emergency freight can be moved during summer over pack trails.

Where the operations are of considerable magnitude and around the larger communities the construction of wagon roads is warranted and necessary on account of the increased travel. Even in such cases it is cheaper to transport the heaviest and least valuable freight by sled in winter rather than by truck in summer. In farm communities roads are of course necessary in order that the farm products may be marketed promptly.

CONSTRUCTION.

Road construction is a rather slow and expensive process. After the road has been located, timber cut and removed, stumps grubbed out, moss and vegetation removed, drainage ditches dug and grading completed it requires a period of three or four years for the subsoil to thaw, the ground water level to be lowered to its new level and the subsoil to reach a stage of equilibrium. Meantime the road is unsuitable for heavy loads and maintenance charges are high. In many places it is impossible at any reasonable expense to grade and drain the roadway and corduroy must be resorted to. Fortunately the scrub timber generally available makes good corduroy. Native timber is of insufficient strength and not very durable, hence fir is imported for all important bridges.

Gravel for road surfacing is generally available within a reasonable hauling distance. Graveling is necessary for practically all roads which are used by automobiles. Concrete or other forms of hard-surfaced roads are nowhere warranted in the present stage of development of the Territory.

Metal culverts are being introduced to replace the culverts of native timber heretofore used. The latter rot very rapidly and the frequent replacement required makes them quite expensive.

Sled roads are located on low ground, often swampy, and follow streams or lakes whenever this is advantageous. Clearing of timber, removal of stumps and niggerheads, construction of bridges across deep gullies and grading down of steep approaches are the general requirements in the construction of a sled road. Winter trails for dog teams are constructed on the same principles but require less in the way of bridges or grading of approaches.

Summer trails follow the driest—or the least wet—ground available. If grades are not excessive they are susceptible of later development into wagon roads.

It is the general policy on any route or within a certain district, to make gradual improvements throughout rather than to make extensive improvements on one route or portion of a route which cannot be advantageously used until the remainder or the connecting routes are so improved.

COMMERCIAL STATISTICS.

A traffic census was begun by the Commission in 1911. Comparing the expenditures for freight on each route at the present rate with the cost of transporting the same amount of freight at the rates prevailing before the road was constructed, a figure is obtained which represents the economic saving to the community served by the construction of the particular route in point.

The data thus collected indicates that the annual saving in cost of transportation of freight due to the construction of roads by the Commission is in excess of \$2,000,000. It is doubtful, however, if anything like that amount of freight would have been transported without the roads and trails and the indirect loss that would have been occasioned by the restriction on output and development if the roads did not exist cannot be estimated.

The traffic census table on pages 34 and 35 gives a synopsis of the traffic reported upon a few typical routes for the calendar year 1925. It shows a very gratifying reaction from recent work performed by this Commission, and an astonishing aggregate of traffic upon trails lying in remote sections.

In the interior, the great cost of moving freight by teaming or packing together with the difficulty and uncertainty of moving it at all, constitutes the main obstacle to the growth and development of the district.

During the opening of the new diggings in the Chisana region a few years ago, beans, coffee, sugar, hay, candles, bacon, grain, etc., were sold at \$1.50 a pound. The freight charges were almost a

dollar a pound, so that the original cost of the article was of relatively little importance. And even at that, the supply could not keep pace with the demand. Last summer the freight charges for transporting supplies from Dawson, in the Klondike, to some mines about one hundred miles away in the American 40-Mile District was greater than the original cost of the supplies plus the freight from the United States to the Klondike. (Dawson is 1,700 miles from Seattle.)

The cost of transportation by the usual modes of transport in Alaska are shown by the following table:

	Per Ton-Mile
Winter:	
Bob-sled (sled road)	\$ 0.37
Double-ender (trail)	1.30
Dog-team (trail)	6.30
Summer:	
Truck (wagon road) .....	.50
Wagon (wagon road)	1.23
Pack train (trail)	4.80
Man (no trail)	26.67*

(*)—Average from very widely varying figures. At Lisianski Inlet, in Southeastern Alaska, in 1921, I observed lumber, pipe, tar paper, groceries, etc., being carried on the backs of Indians from the beach up a slippery mountain trail about 7,500 feet long to a new gold strike in a little basin at about 800 feet elevation at 4 cents per pounds, or \$80.00 per ton—over 1 cent per ton-foot.

Railroad transportation cannot yet be regarded as a usual form for Alaska, and steamship rates are entirely arbitrary, depending upon competition. They, like the existing railroad rates, have been fixed by two factors only: 1st, the cost of hauling on some competing wagon road, sled road, or trail, where such competition exists (or, in the case of steamships, sometimes by competing steamer line); and 2d, by the highest rate the freight can stand and be shipped at all.

The table shows the actual cost at the rates for teams, labor, food, forage, etc., prevailing in the great interior regions of Alaska. They are based also on the costs of hauling large quantities. On the south coast the comparative values are the same, but the actual values are about one-third less because of lower costs of above controlling elements.

Some typical commercial transportation costs are listed below:

From	To	Method	Miles	Cost per Pound Cents	Cost per Ton-Mile
Seattle	Nativez	Steamship	1,598	5	\$0.08889
Valdez	Worlman	Truck	19	1 1/2	1.67895
Valdez	Hoover Dam	Truck	43	3 1/2	1.66667
Valdez	Copper Center	Truck	162	7 1/2	1.47659
Valdez	Sewardough	Truck	149	9	1.29805
Valdez	McCallum	Truck	307	13	1.25604
Seattle	Corlova	Steamship	1,663	5 1/2	0.69942
Seattle	Chilina	Steamship and Railroad	1,734	2 1/2	0.63316
Corlova	McCarthy	Railroad	191	2 1/2	0.29319
Corlova	Chilina	Railroad	131	2 1/2	0.22366
Chilina	Gulzama	Truck	75	4	1.66667
Chilina	Christochina	Double Sled (winter)	730	7 1/2	1.26000
Chilina	Grundler	Truck	213	12	1.10092
McCarthy	Nizina	Truck	10	1	2.00000
McCarthy	Chisana	Dog Sled (winter)	78	30	7.69231
Seattle	Fairbanks	Steamship and Railroad	2,336	2	0.47765
Fairbanks	Chire	Steamship and Railroad	769	3	0.77206
Fairbanks	Chatanika	Truck	30	1	1.66667
Fairbanks	Chatanika	Railroad	33	1	0.51282
Fairbanks	Grundler	Truck	91	3	0.66934
Fairbanks	Hopla	Truck	138	4	0.52166
Fairbanks	Tanana Crossing	Truck	350	11	0.22867
Fairbanks	Tanana Crossing	Dog Sled (winter)	204	30	1.96078
Chire	Hoover	Dog Sled (winter)	129	16	2.2558
Hoover	Chire	Bob Sled (winter)	75	7	1.86667
Hoover	Chire	Wagon (summer)	76	11	2.33333
Chire	Port Yukon	Dog Sled (winter)	67	13	3.88600
Chire	Central House	Bob Sled (winter)	34	2	1.17647
Chire	Central House	Wagon (summer)	34	2 1/2	1.47059
Chire	Miller House	Sled (winter)	53	5	2.94342
Chire	Miller House	Wagon (summer)	49	3	1.22449
Chatanika	Salch Creek	Sled (winter)	42	4	1.90476
Chatanika	Miller House	Sled (winter)	30	16	3.33333
Chatanika	Chire	Sled (winter)	130	16	2.30769
Seattle	Nemana	Steamship and Railroad	2,278	2	0.65800
Seattle	Holy Cross	Steamship and Railroad	3,001	3 1/2	0.22366
Seattle	Port Yukon	Steamship and Railroad	2,789	3 1/2	0.22366
Nemana	Holy Cross	Riverboat	723	4 1/2	0.32213
Nemana	Port Yukon	Riverboat	521	1 1/2	0.96768

From	To	Method	Miles	Cost per Pound Cans	Cost per Ton-Mile
Nemina	Bethel	Riverboat	1,171	4	0.06217
Nemina	Humwell	Riverboat	184	2	0.21733
Bethel	Wadeham	Horse Sled	80	7	1.76406
Hol Springs	Hampart	Sled (winter)	51½	7	2.71846
Dumbar	Brooks	Bob Sled (winter)	63	5	1.68730
Reynolds	Terulud	Tram	13	1	1.54846
Nemina	Terulud	Tram and Boat	206	3	0.22268
Seattle	Angie	Steamship and Railroad (via Seward)	3,074	4	0.02602
		(via Skagway)	2,809	4½	0.04276
Earle	Fortymile	Pack Horse (summer)	60	15	6.00000
Bate	Fortymile	Sled (winter)	60	6	2.00000
Fortymile, Y. T.	Steel Creek	Poking Boat (summer)	45	10	4.44444
Fortymile, Y. T.	Steel Creek	Sled (winter)	45	2	0.88888
Dawson	Angie	Boat (summer)	100	8 ½	0.10000
Dawson	Angie	Dogteam (winter)	100	8	1.60000
Angie	Circle	Boat (summer)	190	2 ½	0.97268
Angie	Circle	Dogteam (winter)	190	15	1.67896
Angie	Chicken	Pack Horse (summer)	50	25	5.55556
Angie	Chicken	Sled (winter)	50	15	3.33333
Angie	Seventymile	Pack Horse (summer)	60	15	5.00000
Angie	Seventymile	Sled (winter)	60	6	2.00000
Seattle	Seward	Steamship	1,866	2 ¾	0.00864
Seattle	McKinley Park	Steamship and Railroad	2,214	2	0.01862
Seattle	Kudlak	Steamship	2,183	¾	0.00770
McKinley Park	Sanctuary	Sled (winter)	21	1½	1.18000
Talkeetna	Casha Creek	Sled (winter)	44	3½	1.44000
Wasilla	Cashbrook	Truck	16	¼	0.62500
Seattle	Bethel	Steamship	2,465	1½	0.00937
Seattle	McGrath	Steamship	2,365	3¼	0.02246
Seattle	Tokotna	Steamship	3,040	4½	0.03134
Seattle	Nome	Steamship	2,621	1½	0.01126
Nome	Unalakleet	Dogteam (winter)	267	20	1.93237
Nome	Unalakleet	Gas Boat (summer)	144	1	0.13588
Nome	Solomon	Dogteam (winter)	33	3	1.81818
Nome	Solomon	Horseteam (winter)	33	2	1.21212
Nome	Solomon	Horseteam (summer)	33	2	1.21212
Nome	Solomon	Gas Boat (summer)	36	½	0.22777
Nome	Council	Dogteam (winter)	81	10	2.46913

Name	No	Method	Miles	Cost per Ton-Mile	Cost per Ton-Mile
Name	Cannell	Heavyteam (summer)	31	6	1.98148
Name	Candle	Dogteam (winter)	228	35	2.19298
Name	Candle	Gas Boat (summer)	369	2	0.11111
Name	Deering	Dogteam (winter)	266	30	2.25564
Name	Deering	Gas Boat (summer)	339	1%	0.08333
Name	Shelton	Dogmobile (summer)	85	19	2.32558
Name	Shelton	Gas Car (summer)	85	2	0.45612
Name	Shelton	Dogteam (winter)	20	19	2.32272
Name	Teller	Dogteam (winter)	85	19	2.32678
Name	Teller	Gas Boat (summer)	198	3	1.14564
Name	Kutzebue	Dogteam (winter)	314	60	3.22581
Name	Kutzebue	Gas Boat (summer)	320	1%	0.11719
Name	St. Michael	Dogteam (winter)	272	30	2.20588
Name	St. Michael	Gas Boat (summer)	130	1	0.15385
Name	Unalakleet	Dogteam (winter)	74	16	2.90279
Name	Holy Cross	Dogteam (winter)	390	30	2.00000
Name	Holy Cross	Riverboat (summer)	350	2	0.11429

TRAFFIC CENSUS

District	No. Route	Station	Period 1926	No. of Persons	Autos	Wagons	Sleds	Pack Horses	Ton-nage
HAINES									
Haines-Mossant Camp	3A&B	Wells	May-Dec.	7091	2191	23	148		297
EAGLE									
Eagle-Liberty	31A	Wagle	June-Dec.	1120		78	430	381	381
Eagle-Seventymile	11B	Eagle	Oct.-Dec.	226			106	26	87
Jack Wade-Chicken	11F	Jack Wade	June-Nov.	232				237	10
Steel Creek-Walker's Park	11D&G	Steel Creek	June-Sept.	166				168	7
Franklin-Chicken	31L	Franklin	June-Dec.	67			29	216	73
Eagle-Circle	53	Eagle	Nov.-Dec.	66			28		6
Chicken-Tanana Crossing	55D&E	Chicken	June-Sept.	261				86	5
CHITINA									
Chitina-Valdez-Fairbanks		Chitina	Jan.-Dec.	2197	982	72	479	6	1274
FAIRBANKS									
Fairbanks-Chitina-Valdez		Richardson	May-Nov.	3111	1171	67			439
Fairbanks-Chitina-Valdez		Grundler Ferry	May-Oct.	2149	854	4			348
Gilmore-Fairbanks Creek	7C	Meehan	May-June	375	97	32	36		167
Gilmore-Fairbanks Creek	7C	Meehan	Oct.-Dec.	198	4		48		72
Fairbanks-Chena Hot Springs	7J	Colorado R. H.	Jan.-Dec.	310			156		131
Chatanika-Circle	15&16	Miller House	Jan.-Nov.	1123		130	315	5	139
Chatanika-Circle	15&16	12 Mile R. H.	Jan.-Apr.	174			198		49
Boyer-Caro	23B	Beaver	May-Dec.	75		2	27	10	27
Circle-Rt. Yukon	53A	Rt. Yukon	Jan.-Apr.	156			65		14
Grundler-Tanana Crossing	60P	Grundler	Jan.-Apr.	108			60		34
NENANA									
Rampart-Kureka	9	Rampart	June	49		1			1
Robt-Diamond	56	Robt.	Jan.-Apr.	76			55		12
Nenana-McGrath		Knight's R. H.	Jan.-Dec.	390			275		30
Ruby-Poorman	38A&E	Long	Jan. Dec.	610	55	48	230		165
Ferry-Dya Creek	58	Ferry	May-Dec.	265		46	25		21
SOUTHWESTERN									
Arvanazel Extension	35A	Fishhook	Jan.	67			36		30
Wasilla-Fishhook	35E	Wasilla	Jan.-Dec.	8646	937	40	216		1112
Wasilla-Knik	35F	Wasilla	Jan.-Dec.	2591	258	156	98	78	146
Wasilla-Palmer and Wasilla-Matanuska	35H and 35J	Wasilla	Jan.-Dec.	4249	394	359	181	53	269

District	Route No.	Station	Period 1925	No. of Persons	Autos.	Wagons	Stock	Horse Power	Tons to go
McNairy Park Road	3613	McNairy	Jan.-Apr.	267					
Ilirana Bay-Iliamna	38	Iliamna	Mar.-Oct.	342			175		417
Tokotna-Croche Creek	51	Moose Creek	Jan.-May	469			71	110	13
Kumli-Ikus-Sum River	55	Cooper's Landing	Jan.-Dec.	574			193		201
Anchorage-Bagle River	76	6 Mile R. H.	Jan.-Nov.	7509	3213	3	112		23
Anchorage-Lake Separd	75A	Spanard	Jan.-June	331	245		42		100
Cantwell-Valdez Creek	76	Cantwell	Jan.	40			37		518
Kanatak-Beckner Lake	94	Kanatak	Jan.-Apr.	338	27	9	19		3
KUSKOKWIM									
Tokotna-Flat	32A	Tokotna	May-Nov.	96				36	3
Flat-Moose Creek	32A3	Flat	May-Nov.	44					3
Candle Creek-Tokotna	32AC	Tokotna	May-Oct.	64				34	
Ikkarad-Flat	32E	Flat	Jan-Dec.	796	130	290	390	30	799
Flat City-Flat Creek	33C	Flat	Jan-Dec.	630	110	40	100	20	175
Flat Creek-Willow Creek	33D	Willow Creek	Jan-Dec.	300	90	30	50	15	125
Flat City-Otter Discovery	33F	Flat	Jan-Dec.	600	40	100	40	70	325
Ophir-Tokotna	35D	Ganes Creek	June-Sept.	267	39	30		54	70
Pearman-Ophir	38F	Ophir	May-Oct.	30				6	
Ganes Creek Road	78H	Ganes Creek	June-Oct.	473	154	132		25	241
Cripple-Crippis Mt.	74A	Cripple	Jan.-Dec.	80				49	3
McGrath-Tokotna	80AA	McGrath	Nov.-Dec.	528				373	30
McGrath-Candle Creek	80C	McGrath	May-Nov.	60					
Tokotna-Twin Peaks	80E	Tokotna	May-Oct.	25					
Medfir-Nixon Mine	80F	Medfir	June-Oct.	80		20		8	5
Tokotna-Nixon Park	80G	Tokotna	May-Oct.	30					
NOME									
Nome-Council	5	Safety	June-Oct.	236	75	40			20
Nome-Teller	57	Sirock	Jan.-Dec.	380			166		17

SUBSISTENCE COSTS

Location	Av. No. Men Crew	No. Days Worked	Cost per Day per man
Valdez District			
Richardson Highway			
Miles 6-18	27	157	1.59
Miles 18-42	28	199	1.59
Miles 55-65	20	162	1.62
Miles 75-89	21	121	1.45
Miles 95-99	21	73	1.56
Gakona	18	119	1.89
Mineral Creek	9	147	1.71
Chitina District			
Richardson Highway			
Miles 24-39*	21	87	1.71
Miles 114-122	29	104	1.74
Miles 155-175	18	101	1.86
Miles 200-208	27	131	1.53
Miles 210-223	18	194	1.65
McCarthy-Nizina	16	83	2.45
*Mileage from Chitina—other mileage shown from Valdez.			
Fairbanks District			
Richardson Highway			
Miles 233-250*	22	132	1.53
Miles 253-259*	15	104	1.60
Miles 325-334*	15	143	1.97
Miles 339-345*	14	103	1.61
Fairbanks	25	119	1.86
Fox	8	92	1.71
Summit	3	95	1.68
Cleary	10	122	1.75
Chatanika	49	150	1.84
Beaver	19	177	1.98
Circle	19	20	2.75
*Mileage from Valdez.			
Nenana District			
Hot Springs	6	180	2.19
Ferry	16	137	2.07
Long	15	113	1.83
Southwestern District			
Anchorage	19	153	1.93
Wasilla	17	174	1.67
Talkeetna	17	171	1.87
McKinley Park	26	278	1.90
Homer	8	135	1.74
Hitama	6	100	2.37
Kodiak	7	164	2.54
Nuka Bay	7	132	2.24
Kuskokwim District			
Tokotna	18	125	2.47
Eagle Sub-District			
Eagle	19	119	2.19

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Alaska District

TWENTY-TWO YEARS' SERVICE

At this, the completion of twenty-two years' operations of the Alaska Road Commission, an outline of the progress of the work performed is of great value. The work naturally divides into three phases or periods.

The first was that covered by the period of time during which General Wilds P. Richardson, U. S. Army, Retired, was President of the Commission and extended from 1905 to 1917. This was essentially a period of pioneering. While this period covered nearly all the stampedes into the Territory, settlements and traffic lines of communication were very unsettled. With small but increasing appropriations, the pioneer development of the Territory was followed with great intelligence through this period. By 1913 a comprehensive program of operations was drawn up calling for the expenditure of \$7,500,000 during the succeeding ten years. During the last two years of General Richardson's direction, Congress appropriated \$500,000 each year for the work.

The largest project of the Commission, the Richardson Highway from Valdez to Chitina to Fairbanks, was located and improved for nearly the entire distance so as to provide for wagon traffic. By 1907 it was passable throughout for dog-teams; by 1910 for a light horse-drawn wagon; and in 1913 the first light automobile made the through trip from the interior to the coast. This period laid the foundation for all future work and terminated with the opening of the so-called War Period, 1917-20.

This second period was one of general stand-still for the work of the Road Commission, as well as industrial development within the Territory. Appropriations were small, expert personnel was not available for supervision, prices were high and labor scarce. The work was applied to a few projects only and much of the mileage established in the previous period went into disrepair or almost entirely passed out of existence. During the last two years of this period, appropriations were reduced to \$100,000 per year. This period closed with the organization of the present Commission in 1920.

The third period, 1920 to the close of the fiscal year 1926, was characterized by increased appropriations, broader legislation, close cooperation with the Territory, procurement of mechanical equipment, reopening of old trails and roads, heavier construction to withstand motor traffic, and adjustment of lines of communication to the vast change brought about in Alaska by the approaching completion of The Alaska Railroad from Seward which reached

Fairbanks in 1923. Federal appropriations increased from \$250,000 to \$900,000 per year, and other resources were secured, so that funds available for the current season's work aggregate \$1,350,000.

The pioneer period of the Alaska Road Commission is largely over. All existing mileage has been opened and improved, so far as funds have permitted. The present network of roads serves as an infallible guide for the future development of overland routes through the Territory. This development only calls for additional funds for construction.

The present Commission, soon after its reorganization in 1920, prepared a new ten-year program calling for an expenditure of \$10,000,000 during the succeeding ten years. Appropriations, exclusive of the Alaska Fund and Territorial contributions, for the first five years have aggregated \$3,220,000. The program as now revised, in order to speed up the completion of the work, calls for the expenditure of \$9,000,000 during the second five years of the ten-year period.

PROPOSED OPERATIONS.

This report covers operations up to June 30, 1926, or practically the working season of 1925. Current operations (working season of 1926) will be covered in the annual report for 1927. About \$1,350,000 is available for the year. These funds will be expended on the rehabilitation and maintenance of the existing system. Little can be done to meet the pressing need for improvements and extensions of the system, without much greater annual appropriations than have been made up to the present.

An estimate of \$2,000,000 for the fiscal year ending June 30, 1928, has been submitted, and included in the annual report of the Department. This is in addition to contributed and tax funds and in accordance with the 1924 program described below. Total funds estimated can be profitably expended approximately according to the following distribution:

ESTIMATES, FISCAL YEAR 1928.

District	MILEAGE, EXISTING SYSTEM			EXISTING PROJECTS			AVERAGE PER MILE		
	Roads	Sled Roads	Trails	(a) Maintenance	(b) Improvement	Total	Roads	Sled Roads	Trails
Southeastern	79	.....	5	\$ 23,750	\$ 30,000	\$ 43,750	\$ 563	\$	\$10
Bethel	.....	.....	970	4,850	.....	4,850	.....	.....	5
Eagle	23	173	388	13,000	10,000	23,000	533	26	8
Valdez	105 1/2	.....	.....	34,000	180,000	214,000	2,433	.....	.....
Chitina	230 1/2	.....	340	90,000	145,000	241,000	1,078	.....	10
Fairbanks	404 3/4	209 1/2	440	138,000	125,000	263,000	623	55	10
Nenana	146 1/2	446	630	40,000	.....	40,000	304	16	6
Southwestern	191 1/2	183	268	65,000	.....	65,000	339	25	11
Kuskoquim	77 1/2	47 1/2	1,156 1/2	29,000	20,000	49,000	557	15	4
Nome	280 1/2	27	2,437*	98,400	.....	98,400	305	18	5
Total	1,533 1/2	1,085	6,071 1/2*	\$542,000	\$500,000	\$1,042,000	\$ 638	\$21	\$ 6

District	NEW CONSTRUCTION			Total	Grand Total of Estimates (a) (b) (c) (d) and (e)
	(c) Approved Projects Already Under Way	(d) Approved Projects Not Yet Started	(e) New Projects Likely to Develop		
Southeastern	\$	\$	\$	\$	\$ 43,750
Bethel	.....	.....	.....	.....	4,850
Eagle	.....	.....	.....	.....	23,000
Valdez	.....	.....	.....	.....	214,000
Chitina	100,000	.....	60,000	160,000	402,000
Fairbanks	240,000	200,000	.....	440,000	703,000
Nenana	60,000	105,000	.....	165,000	260,000
Southwestern	65,000	150,000	.....	215,000	280,000
Kuskoquim	10,000	.....	30,000	40,000	85,000
Nome	.....	120,000	.....	120,000	218,400
Total	\$475,000	\$576,000	\$100,000	\$1,151,000	\$2,192,300
Less Alaska Fund and Territorial contributions for maintenance, estimated at					192,000
Net Federal appropriation					\$2,000,300

*Exclusive of 712 miles temporary flagged trails.

THE FUTURE.

A program of operations, prepared by the Alaska Road Commission in cooperation with the Governor of Alaska, the Territorial Board of Road Commissioners and other interested Federal and Territorial officials, was submitted in the annual report of the Commission for 1920. It proposed three classes of work: first, the construction of about 700 miles of arterial or feeder highways, mainly following old routes (estimated cost \$7,000,000); second, the construction of development roads to be constructed from time to time on locations left for future determination (estimated cost \$1,000,000); third, the maintenance of the then existing road and trail system (estimated cost for the 10-year period, \$2,000,000). Total estimated cost, \$10,000,000.

The proposed annual appropriations and the amounts actually appropriated are shown in the following table:

1920 PROGRAM

Amounts required each year of the 10-year period of road and trail development.

Fiscal Year	Working Season	Amount Estimated	Amount actually Appropriated
First (1922).....	1921	\$ 955,000	\$ 425,000
Second (1923).....	1922	1,200,000	465,000
Third (1924).....	1923	1,500,000	650,000
Fourth (1925).....	1924	1,600,000	780,000
Fifth (1926).....	1925	1,400,000	900,000
Total for first 5 years.....	.....	\$8,655,000	\$3,220,000

The appropriations for the first five years were slightly less than half the estimates. About three-fourths of the available funds were required for maintenance and repair. It was considered that construction should be speeded up in order to get the maximum benefit from the work already accomplished and the 1920 program was therefore revised in 1924.

In the second five years of the Ten-Year period, 1927-1931 (working seasons 1926-1930), the following appropriations were recommended:

(a) For Maintenance of Existing Routes 9,736 miles @ \$542,000 per year	\$2,716,000
(b) For Improvement of Existing Routes to the same standard throughout	2,600,000
(c) For Completion of Projects already Undertaken	1,735,000
(d) For Completion of Projects already Approved but not yet Undertaken	1,780,000
(e) For Completion of Projects likely to arise with Development during the 5 years	1,135,000
Total for five years	\$9,960,000
Less Alaska Fund and Territorial Contributions (estimated)....	960,000
Net Federal Appropriations	\$9,000,000

Item (a). Maintenance of Existing Routes, is necessary in order to hold the existing system in service and to prevent further deterioration. The present condition and needs of the 2,736 miles of the existing system are described in detail under the different district reports herein.

Item (b). Improvement of Existing Routes, is necessary to enable existing through routes to be utilized throughout in all kinds of weather by the same class of traffic without the necessity of breaking loads. The principal routes requiring substantial improvement are the Richardson Highway, McCarthy-Dan Creek, Fairbanks System, Circle System, Beaver-Cato, Knik-Willow Creek, Wasilla-Matanuska, Anchorage System, Roosevelt-Kanishna, Ruby-Long and Nome-Bessie. Several winter trails, notably that between Eagle and Circle, require relocation in part to take them off dangerous sections of the streams, while a considerable portion of the 2,467 miles of winter trails on the Seward Peninsula requires permanent staking or tripoding.

Item (c). Completion of Projects already Undertaken, is necessary to raise the classification of parts of existing routes and to complete new projects within a reasonable time, especially those undertaken to provide highway and trail feeders to the Government Railroad. 173½ miles of new construction estimated to cost an average of \$10,000 per mile, including maintenance of completed sections during the construction period, will be required. The following routes are included:

	Miles
Kodiak-Abbotts-Mill Bay	6½
Wasilla-Chitochina	11
Fairbanks-Circle	44
Wasilla-Cato-Creek	59
Opbir-Takotna	16
Long-Poorman	17
Eagle-Periyah	24
Homer Spit	5
Total	173½

Item (d). Completion of Approved New Projects is necessary to permit aggressive action toward completing the proposed system so as to provide Alaska with a complete road and trail system, such as immediate needs justify and probably sufficient to meet all reasonable demands until the Territory shall be sufficiently developed to take over internal public works as a part of its own government. 178 miles of new construction will be required, including the following routes:

	Miles
Willow Creek System	59
Nome Dahl Tramway	12
Innatchuk-Cedille Tramway	30
Leering-Innatchuk	13
Wiseman System	12
Nentishng-Park Boundary	8
Fairbanks-Chena Hot Springs	54
Total	178

Item (e), Completion of Road and Trail Projects to Arise with Development during the Five Year Period, provides a reserve to meet new conditions or changes in existing conditions. Among the many possible development routes, the following are of most immediate importance and warrant further study:

Eagle-Seventymile.
 Fortymile-International Boundary
 Grundler-Telling.
 Chistochina-Slate Creek.
 Chistochina-Nabesna-Chisana.
 Chitina-Kotsina.
 Katalla-Yakataga.
 Kenai-Homer.
 Hiamna Lake-Lake Clark.
 Talkeetna-Iron Creek.
 Lignite-Kantishna.
 Flat-Georgetown.
 Alaina-Shungnak.
 Tuluksak-Bear Creek.
 Takotna-Nixon Forks.

Distributing the above work over a five-year period in such manner that the entire project may be handled with the greatest eventual economy, we have the following table of proposed appropriations:

PROJECT OF 1924

Federal appropriations required each year of 5-year period of road and trail development.

Fiscal Year	Working Season	(a)	(b)	(c)
		Maintenance* Existing Routes	Improvement Existing Routes	Completion approved projects already underway
1927	1926	\$ 350,000	\$ 600,000	\$ 510,000
1928	1927	350,000	500,000	475,000
1929	1928	350,000	500,000	400,000
1930	1929	350,000	500,000	230,000
1931	1930	350,000	500,000	100,000
Total		\$1,750,000	\$2,800,000	\$1,735,000
Fiscal Year	Working Season	(d)	(e)	Total of estimates (a), (b), (c), (d), and (e)
		Construction approved projects not yet underway	Construction new projects likely to develop	
1927	1926	\$ 290,000	\$	\$1,750,000**
1928	1927	575,000	100,000	2,050,000
1929	1928	550,000	200,000	2,000,000
1930	1929	300,000	350,000	1,750,000
1931	1930	65,000	185,000	1,500,000
Total		\$1,780,000	\$1,135,000	\$3,000,000

*Exclusive of Alaska Fund and Territorial Contributions for maintenance estimated at \$122,000 per year.

**Appropriated by 1927, \$900,000.

The amounts submitted in the above estimates are necessary for the development of Alaska. The postponement of the construction outlined will postpone not only the economic use of the Government Railroad, now completed and operating at a deficit of 1 1/2

million annually, but the development of Alaska as well. The above amounts can be profitably and economically expanded by this commission with its existing organization.

The above program is the result of over six years of intensive study of the transportation system of the Territory by the President of the Commission. During this time he has repeatedly visited practically every inhabited district of any importance, and has made reconnaissances into remote and little known regions. This program, calling for an expenditure of \$9,000,000 including 5 years' maintenance, is very modest compared with the recommendations of the Alaska advisory committee in 1920. That committee recommended about \$25,000,000 worth of new construction, including the following wagon road projects which this Commission has not yet adopted and some of which it has definitely disapproved in so far as any consideration during the present generation is concerned:

	Approx. Mileage
Kantishna-McGrath-Iditarod	350
Cache Creek-Rainy Pass-McGrath	250
Fairbanks-Ruby	300
Poorman-Ophir	125
Ruby-Nome	315
Total	1,430
Estimated First Cost	\$15,000,000

THE RICHARDSON HIGHWAY.

INTRODUCTION

The Richardson Highway is the name locally applied to the U. S. Military Wagon Road extending from Valdez, an open-all-the-year south coast port of Alaska, to Fairbanks, on the Tanana River, the main distributing point for the great Yukon Valley and other interior regions of Alaska. It was so named after its builder, General Wilds P. Richardson, U. S. Army, who was President of the Alaska Road Commission from the date of its organization in 1905, until he was called away in December, 1917, for overseas service in the Great War.

For history and description, see Part II, Annual Report for 1924, beginning on page 45.

COST ANALYSIS

First as a trail for pedestrians and animals in summer and dog sleds in winter, later as a summer pack trail and winter bob-sled road, later as a summer wagon road and winter bob-sled road, and

still later as a summer automobile road and winter motor or bob-sled road, the highway was the only practicable route by which Fairbanks and the country tributary thereto could be reached from the coast in winter and was the route over which mail and express and many of the passengers traveled in summer from 1905 until 1921.

Very meager information is now available as to the traffic over the route during this period, but it was of considerable magnitude. In 1910 the movement amounted to 3,500 persons and 2,480 tons of freight. 1,742 head of cattle and sheep were driven over the trail in 1912. From its inception until 1921, when the through mail to the interior first began to move over the then uncompleted Government Railroad, the highway had a vital part in the development of the interior.

The following table shows the classification of all expenditures upon the highway including all winter cut-offs, pack trails, and development work to date. The unit costs are figured for the 410 miles now in operation and are consequently slightly higher than the actual costs, no adjustment being made for early mileage abandoned or superseded in favor of the present route:

VALDEZ-WILLOW CREEK—92 MILES			
Fiscal Years	Construction	Maintenance	Total
1905-1909	\$ 10,333.15	\$ 91,149.25	\$ 101,478.40
1910-1920	49,661.85	473,606.48	523,268.33
1921-1926	428,707.43	229,869.00	648,576.43
Total	\$ 488,702.43	\$ 788,546.73	\$1,277,249.16
Average p/mi.	5,257.69	8,571.16	13,828.85
Average p/mi. p/yr.		389.69	628.58

CHITINA-RAPIDS—180 MILES			
Fiscal Years	Construction	Maintenance	Total
1905-1909	\$ 60,000.00	\$ 126,299.65	\$ 186,299.65
1910-1920	295,009.00	702,949.48	997,949.48
1921-1926	553,993.58	321,000.09	874,993.67
Total	\$ 908,993.58	\$1,150,249.11	\$2,059,242.69
Average p/mi.	5,053.30	6,406.39	11,459.69
Average p/mi. p/yr.		291.22	529.92

RAPIDS-FAIRBANKS—128 MILES			
Fiscal Years	Construction	Maintenance	Total
1905-1909	\$ 34,243.40	\$ 83,707.19	\$ 117,950.59
1910-1920	185,158.80	457,743.16	642,901.96
1921-1926	456,617.73	198,720.00	655,337.73
Total	\$ 675,999.93	\$ 740,170.35	\$1,416,170.28
Average p/mi.	4,753.75	5,363.55	10,117.30
Average p/mi. p/yr.		243.89	459.88

TOTALS FOR RICHARDSON HIGHWAY—410 MILES			
Fiscal Years	Construction	Maintenance	Total
1905-1909	\$ 105,181.55	\$ 304,138.09	\$ 409,319.64
1910-1920	509,818.45	1,634,299.10	2,144,117.55
1921-1926	1,434,318.84	748,529.00	2,182,847.84
Total	\$2,049,318.84	\$2,686,966.19	\$4,736,285.03
Average p/mi.	4,998.34	6,541.36	11,539.70
Average p/mi. p/yr.		297.33	524.63

PRESENT CONDITION

The entire route is now standard graded on final location and the gravel surfacing is rapidly going forward.

The following table indicates the condition as of March 1, 1926:

	Miles
Heavy Gravel Surface	227
Light Gravel Surface	40
Natural Gravel or Broken Rock Roadbed	77
Unsurfaced (to be surfaced)	66

410

All bridge structures have been overhauled and reconstructed where required. The following important bridges were constructed during the year:

Valdez Glacier streams, 1,500 lin. ft. pile trestle.

Klutina Bridges, 447 lin. ft. pile trestle.

Banner Creek, 2-20 ft. spans.

Slough of Tanana River, Mile 348, 1-100 ft. span.

PROGRAM FOR COMPLETION OF IMPROVEMENT

Valdez-Willow Creek	FISCAL YEARS			Annually	
92 Miles	1927	1928	1929	Total	Thereafter
Maintenance	\$ 30,000	\$ 30,000	\$ 30,000	\$ 90,000	\$ 45,000
Construction	125,000	110,000	81,750	316,750	.....
Chitna-Rapids					
180 Miles					
Maintenance	80,000	80,000	72,000	232,000	54,000
Construction	155,000	165,000	163,000	483,000	.....
Rapids-Fairbanks					
138 Miles					
Maintenance	40,000	48,000	55,200	143,200	41,000
Construction	100,000	90,000	45,500	235,500	.....
Total Maintenance	120,000	158,000	164,000	442,000	140,000
Total Construction	390,000	365,000	298,250	1,053,250	.....

CONCLUSION

The Richardson Highway is an important traffic feeder both to The Alaska Railroad and to the Copper River and Northwestern Railway. With these two rail systems it forms a circular route which has now become widely known on the outside as the Golden Belt Line Tour. During the current season many hundreds of tourists made this truly magnificent scenic trip without any delays or inconveniences other than are incident to motoring in any mountainous country.

During its first sixteen years of development, the Richardson Highway was the only overland means of access to the interior of Alaska. In addition to its value in aiding local travel and de-

velopment. Its function of bringing into the Territory new people and new money for permanent investment is of constantly growing importance. It is truly remarkable that the Federal Government should have constructed and maintained this excellent overland highway in such a remote and sparsely settled region so long before the Federal aid idea was accepted in the States. Its total cost of less than \$12,000 per mile, including twenty-two years' maintenance and development, coupled with the fact that it has been rendering service in the transportation of mail, express, passengers and freight, throughout its length from the very start in 1905, first by dog-team, then horse-sled, then wagon, and since 1913 by motor, is even more remarkable. It stands as a permanent and outstanding monument to its projectors.

EXTENSION TO CIRCLE.

The all-American route will not be complete until it is extended to the upper Yukon and serves as a portage between the Yukon and Tanana Valleys. The plans of the Commission contemplate the eventual extension of the Richardson Highway from Fairbanks to Circle, a distance of 160 miles. This will make a total distance from Valdez of 531 miles, about the distance from Boston to Richmond, or from Vancouver to Banff.

About two-thirds of this extension is now passable for wagons. A regular winter mail stage service is maintained, using double bob-sleds, horse-drawn. Automobiles can now travel for sixty-two miles out of Fairbanks, or thirty-two miles beyond Chatanika, during the open season. On the Circle end, fifty miles are now passable for wagons. An automobile service to Circle Hot Springs uses the 24 miles between Circle and Central House. This fifty miles can be improved to motor standard at relatively small expense, once the intervening gap of about fifty-five miles is completed.

Program for Completion

Fairbanks-Chatanika 30 Miles	FISCAL YEARS			Total	Annually Thereafter
	1927	1928	1929		
Maintenance	\$ 10,000	\$ 15,000	\$ 15,000	\$ 40,000	\$ 12,000
Construction	15,000	20,000	-----	35,000	-----
Chatanika-Miller H. 89½ Miles					
Maintenance	10,000	20,000	30,000	60,000	60,000*
Construction	175,000	170,000	30,000	375,000	-----
Miller-House-Circle 44½ Miles					
Maintenance	1,500	5,000	10,000	16,500	15,000
Construction	-----	45,000	140,000	185,000	-----

*For the first five years to provide for additional graveling, \$30,000 annually thereafter.

DETAILED OPERATIONS BY DISTRICTS.

The nature of the construction work varies from primitive pioneer cruising and blazing of pack trails to surveying and locating well graded gravel roads. In Southeastern Alaska and the centers of population of Southwestern Alaska and of the Interior, several hundred miles of roads exist, well surfaced and well graded and meeting adequately the increased motor transportation thereon. A considerable amount of work is constantly required in improving portions of old roads, involving regrading, realignment, and gravel surfacing. The condition of roads here in Alaska continues to improve by thawing and drying out from year to year. For this reason, the carrying along of construction through protracted periods has not always been a disadvantage. The cruising, location and clearing of the right-of-way and the gradual grading results in a road structure of less total cost than would have been possible had the construction been completed the first season. In many cases the construction of the road in one season is impossible. This applies to the large areas of marshy and permanently frozen ground which always require two or three seasons of exposure to the sun's rays to become dried out and compacted.

The work of the Commission is carried out almost entirely by its own forces. A few small contracts are let. In the general case no organization competent to do our work can be found in the district in which it is executed. The preparing of our work for letting by contract would involve elaborate surveys and constant engineering supervision, finally resulting in an overhead cost totally out of proportion to the extent of our funds. At the same time, no location without elaborate clearing and digging of test pits could, previous to construction, predetermine the road cross section or the road alignment. After a road has been opened up and cleared many improvements can be made in alignment and grade. This is done. The work is so scattered that the foreman, assisted from time to time by the district superintendent, must be competent to make local improvements and locations.

In wagon road construction a maximum grade of ten per cent and curvature of not less than one hundred feet radius are permitted. The width of our roads is generally such as to afford one wagon track. In a few cases, where congested traffic occurs, the road section has been widened out to provide for two tracks.

Winter dog trails, of extreme importance in the interior bare tundra areas, must above all, be carefully blazed and marked so that travelers can easily follow them. Shelter must be provided, as it is inconvenient, if not dangerous, to camp out in the interior in the winter time. The marking of pack trails is equally important with that of winter dog trails.

JUNEAU HEADQUARTERS.

The general office of the Commission is located at Juneau, the capital of the Territory. This is the headquarters for all activities of the members of the Commission.

The field activities of the Commission extend to all inhabited parts of the Territory, but the largest projects and the bulk of its expenditures are located in the central part of the territory tributary to the Richardson Highway and The Alaska Railroad. Close liaison is maintained with all other Federal or Territorial bureaus or officials.

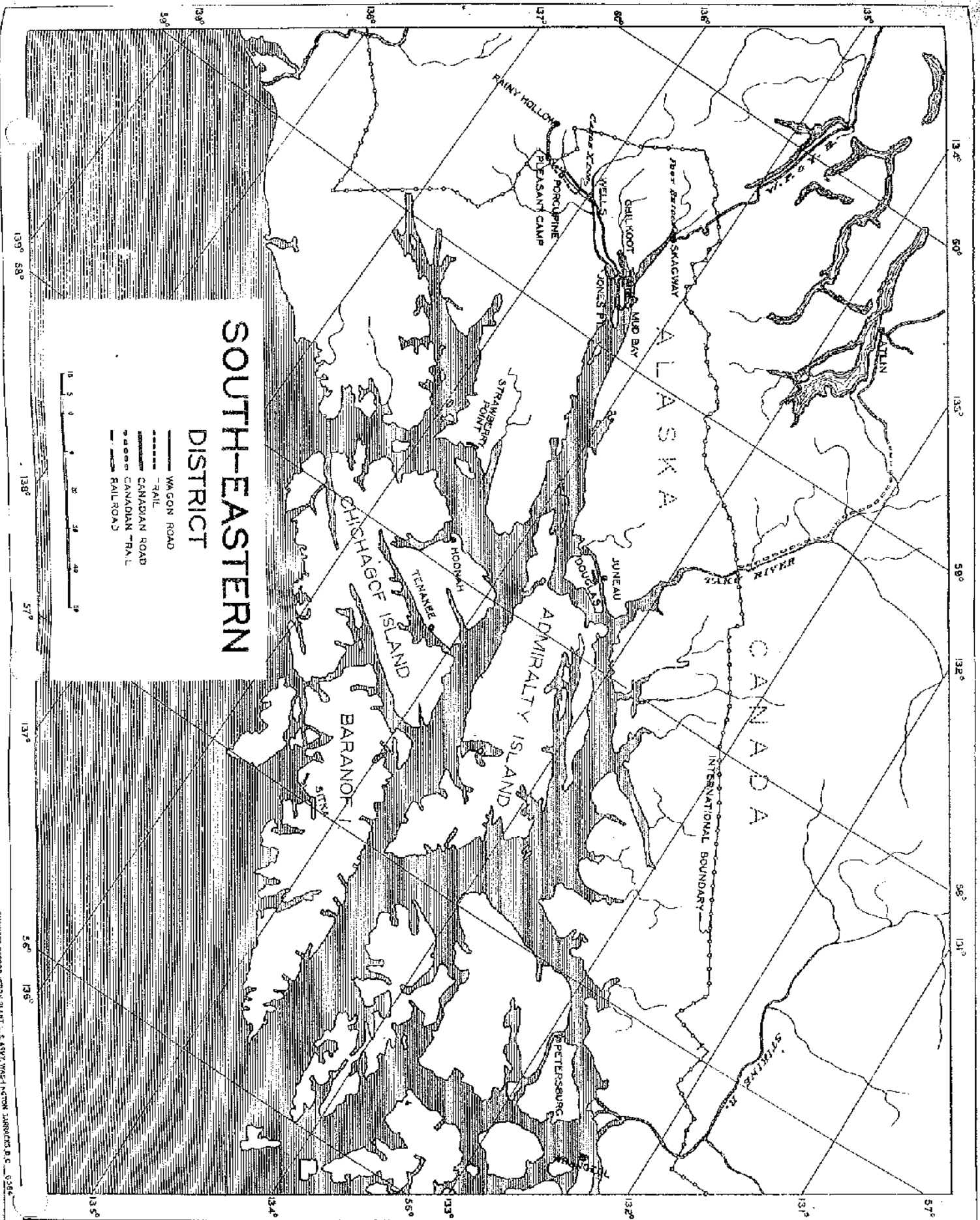
The President of the Commission has general charge of the operations of the Commission, conducts hearings, investigates new projects, allots available funds, and approves and certifies, on behalf of the Commission, all vouchers and expenditures. He spends a majority of his time in the field keeping in close touch with the progress of the work and of conditions generally in the Territory.

The Engineer Officer supervises the work of construction in the field, prepares estimates, requisitions, etc., and oversees the design of major structures. He spends most of his time in the field and undertakes a great deal of pioneer reconnaissance work. The President and the Engineer Officer interchange functions in different parts of the Territory, thus expediting the handling of emergencies.

The Secretary and Disbursing Officer is in general charge of the office, handles purchases and supply, and disburses the funds of the Commission. He has a bonded disbursing clerk in each district who draws overdrafts on the nearest bank or commercial house to make prompt payment for labor and supplies. These overdrafts are met monthly by the disbursing officer and carried as "cash advanced" until the covering vouchers arrive; usually several months and frequently two years later. He visits each district office periodically to standardize methods and accounts. By means of the cable, telegraph, and radio, the general office is in constant touch with each district office.

WASHINGTON, D. C., SUB-OFFICE.

Routine business with the War Department is carried on through the Chief of Engineers, U. S. Army. The President of the Commission is required to defend the annual estimates of the Commission in person before the Appropriations Committees of Congress. He is also called upon to testify upon Alaskan affairs before various other committees and to confer with other bureau chiefs in Washington. To meet these conditions, he maintains a sub-office in Washington, D. C., for several weeks each winter.



SOUTH-EASTERN DISTRICT

- WAGON ROAD
- RAIL
- CANADIAN ROAD
- CANADIAN RAIL ROAD



EXAMINER REPORT, SECTION 94 ANT. U. S. GEO. SURV. WASH. D. C. 1938

SEATTLE, WASH., ENGINEER OFFICE.

By informal arrangement, the District Engineer, U. S. Engineer Department, Seattle, Wash., has consented to act as a purchasing agent of the Commission. Upon request he advertises and canvasses bids, inspects and ships supplies, answers inquiries, secures information, and, in general, represents the Commission in Seattle. For this service he charges the Commission only for the actual time of such of his subordinates as may be actually engaged in this work. This accommodation results in a considerable saving to the United States, as otherwise the Commission would be compelled, during the busy season, to maintain a high-priced representative in Seattle and to provide for office space, fuel and light, clerical help, etc.

The services rendered to this Commission through such purchases and shipments are invaluable. The low prices obtained and the prompt shipments made have been an important factor in extending its work.

The supplies purchased include practically everything from bridge iron, metal culverts, forage, subsistence and heavy road machinery, to small tools, office equipment, and stationery. Some of the larger items during the year include the following:

Hay	473.8 tons
Oats	332.5 tons
Potatoes	47.2 tons
Sugar	28.4 tons
Flour	522 barrels
Lumber	1,163,739 board feet
Metals culverts	38,312 linear feet

During the past three years, the supplies purchased and the cost for the entire transaction including advertising, acceptance, inspection and shipment, and all expenses incidental thereto, were as indicated in the following table:

Fiscal Year	Cost of Supplies Purchased	Seattle Office Charge	Per Cent
1924	\$182,247.50	\$ 3,048.17	1.67
1925	102,052.70	3,933.91	2.65
1926	219,915.66	3,641.97	1.46
Totals	\$425,275.76	\$10,630.95	1.70

SOUTHEASTERN DISTRICT.

Supervised from Juneau Office
1st. Lieut. H. E. Fisher, Supt.

R. J. Shepard, Asst. Supt., Haines to Dec. 31, 1925

This district embraces all the territory east of the 141st meridian, the so-called Panhandle.

Due to the rugged topography and the excellent system of sheltered waterways the main transportation will always be by water.

50 ANNUAL REPORT ALASKA ROAD COMMISSION.

All expenditures in this district were upon cooperative projects supported by the Territory and the Alaska Road Commission, with the exception of the Haines-Chilkoot road which is an exclusively Territorial project.

SUMMARY OF ROADS

Sub-Project No.	Name of Route	Wagon Road	Trail	Total Miles
3A	Haines-Wells	24½	---	24½
3B	Pleasant Camp Extension	17½	---	17½
3C	Porcupine Extension	20	---	20
3D	Haines-Mud Bay	10	---	10
3E	Haines-Chilkoot	3	---	3
14A	Sitka National Monument	---	2	2
14B	Sitka National Cemetery	---	1½	1½
40	Douglas-Gastineau Channel	2	---	2
44A	Skagway-Smuggler's Cove	---	3	3
81	Good Creek-Salmon River	1½	---	1½
Totals		79	5	84

SUMMARY OF EXPENDITURES

Sub-Project Number	Federal	Territorial	Construction	Maintenance	Total
3A	\$ 6,855.14	\$ 1,200.00	\$ 2,000.00	\$ 6,025.14	\$ 8,085.14
3B	21,749.15	19,433.50(a)	28,061.60	5,120.00	41,181.89
3C	19.00	15.00	---	75.00	25.00
3D	111.75	159.00	---	261.75	261.75
3E	---	64.50	---	64.50	64.50
14A	610.64	962.61(b)	300.00	1,272.65	1,572.65
14B	531.82(c)	236.00	150.00	631.82	781.82
40	1,792.16	1,200.00	2,192.16	800.00	2,992.16
44A	358.80	200.00	---	558.80	558.80
81	692.32	1,100.00	1,193.32	300.00	1,793.32
Totals	\$22,049.82	\$24,577.01	\$42,167.17	\$15,059.86	\$57,226.83

(a)—Includes \$415 from sale of Territorial property.

(b)—Includes \$562.01 contributed by the National Park Service.

(c)—Includes \$290.17 allotted by the Quartermaster General.

DESCRIPTION

For detailed description see Part II, Annual Report for 1924. The following additions should be noted.

44A—This trail extends from the town of Skagway across Skagway River and up the mountain a distance of 3 miles. The Skagway River is crossed by means of a 175 foot suspension bridge.

OPERATIONS DURING YEAR

The important operations other than routine maintenance may be summarized as follows:

3B—Construction of this road was completed to the Canadian boundary. 5½ miles of new grade were constructed, 1 mile of the old Dalton trail being used with minor repairs. The distance from Haines to the boundary is 42 miles. The length of this route is 17½ miles.

14A—A footpath was cleared along the park boundary. Additional gravel was placed on footpaths and all totem poles with one exception were painted and repaired. The gravel fill approaches to the Indian River foot bridge were completed. The beach was cleared of all debris and the grounds kept in a neat condition.

14B—The boundary was cleared and marked. Additional gravel was placed on footpaths.

14C—All bridges were repaired or renewed. Additional drainage was provided, brush cleared from sides of roadway and the entire route surfaced with gravel.

14D—The contract to ditch and grade the road was completed. Drainage ditches were dug along both sides of the road and the material placed in the roadway, providing a sufficient crown for good drainage.

The landing float was provided with new anchor cables and landing light. This float has proved very useful to the residents of the section.

PRESENT CONDITION AND NEEDS

The most important project in this district, the Haines-Pleasant Bay road, is now completed to the boundary and requires proper maintenance. The section from Haines to Wells requires slight improvement.

Several minor projects should be constructed as additional funds become available. No extensive road projects should be undertaken in this district. The aim should be to provide transportation where needed from the nearest point on the inside highways.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Gravel Road	78		
Trail	5		
Totals	84	\$57,226.53	\$ 681.04

EAGLE SUB-DISTRICT.

Supervised from the Juneau Office
 Fred Price, General Foreman in Charge, Eagle
 July 1 to Oct. 31, 1925
 March 15 to June 30, 1926

This sub-district includes that part of the Territory north of 66° 12' north latitude and east of the 144th meridian. It includes a part of early development in the history of Alaska. During the last few years, no extensive development has occurred. The system

of winter sled roads and summer trails giving access from Eagle to the Fortymile and Seventymile districts, includes the most important projects within the sub-district.

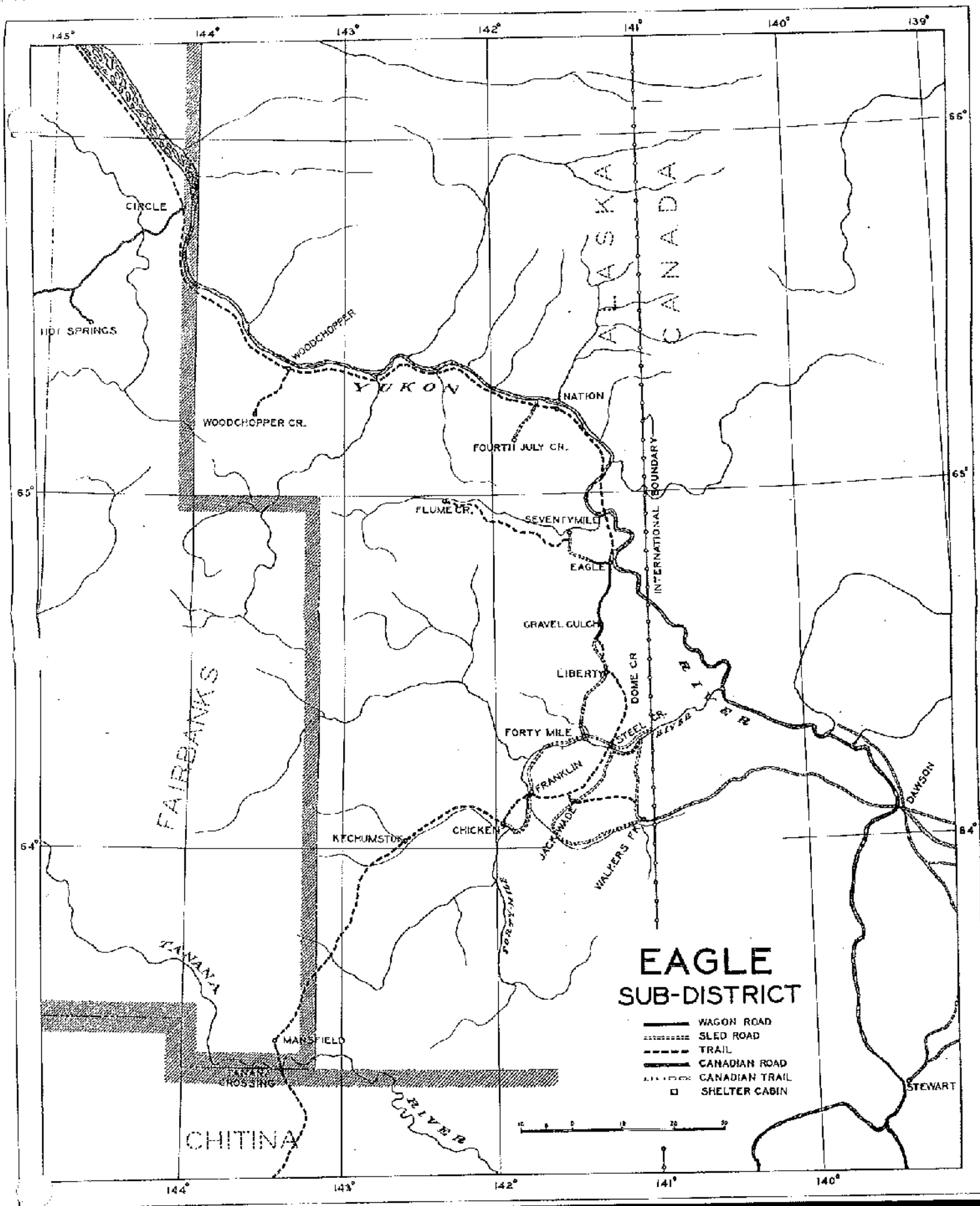
All projects in this sub-district were supported by the Alaska Road Commission exclusively, with the exception of shelter cabins which were supported by the Territory exclusively.

SUMMARY OF ROADS

Sub-Project No.	Name of Route	Wagon Road	Sled Road	Trail	Total Miles
11A	Eagle-Liberty	20	7	---	27
11AA	American Summit-Liberty	---	---	12	12
11B	Liberty-Fortymile	---	23	---	23
11C	Steel Creek-Jack Wade	---	15	---	15
11CC	Steel Creek-Jack Wade	---	---	15	15
11D	Steel Creek-Walker's Fork	---	27	---	27
11E	Eagle-Seventymile	4	15	---	19
11F	Jack Wade-Chicken	---	40	---	40
11G	Steel Creek-Canyon Creek	---	20	---	20
11H	Liberty-Dome	---	5	---	5
11I	Dome-Steel Creek	---	10	---	10
11J	Fortymile-Franklin	---	12	---	12
11K	Fortymile-Steel Creek	---	30	---	30
11L	Franklin-Chicken	---	8	---	8
11LL	Franklin-Chicken	---	10	---	10
11M	Jack Wade-Walker's Fork-Boundary	---	20	---	20
11MM	Jack Wade-Mouth Walker's Fork	---	---	18	18
53	Eagle-Circle	---	12	---	12
65D	Kechumstuk-Tanana Crossing	---	---	100	100
65E	Chicken-Kechumstuk	---	---	60	60
86	Fourth of July Creek	---	---	28	28
87	Woodchopper Creek	5	5	---	10
90D	Shelter Cabins 4th Division	---	---	8	8
Totals		20	173	388	590

SUMMARY OF EXPENDITURES

Sub-Project Number	Federal	Territorial	Construction	Maintenance	Total
11A	\$ 1,533.80	---	---	---	\$ 1,533.80
11AA	6,429.14	---	6,429.14	---	12,858.28
11B	171.50	---	---	171.60	343.10
11C	325.25	---	---	325.25	650.50
11CC	162.50	---	---	162.50	325.00
11D	308.20	---	---	308.20	616.40
11E	2,211.80	---	---	---	2,211.80
11F	814.20	---	910.00	1,361.80	3,086.00
11G	92.00	---	---	814.20	906.20
11H	77.15	---	---	92.00	169.15
11I	1,985.49	---	---	77.15	2,062.64
11J	---	---	500.00	1,435.49	1,935.49
11K	---	---	---	---	---
11L	158.50	---	---	---	158.50
11LL	---	---	---	158.50	158.50
11M	125.00	---	---	---	125.00
11MM	114.50	---	---	125.00	239.50
53	1,583.78	---	742.00	---	2,325.78
65D	807.00	---	---	941.78	1,748.78
65E	144.50	---	---	807.00	951.50
86	1,040.39	---	---	144.50	1,184.89
87	---	---	600.00	440.39	1,040.39
90D	---	---	---	---	---
Totals		\$ 815.13	\$ 9,026.27	\$10,303.56	\$19,329.83



DESCRIPTION

For detailed description see Part II, Annual Report for 1924. The following changes and additions should be noted:

11A—Route name changed to Eagle-Liberty. The first 29 miles of this route from Eagle are suitable for wagon traffic. The last 7 miles into Liberty are winter sled road.

11AA—This summer pack trail now extends from its junction with the wagon road at the American Summit to Liberty where it connects with the route to Dome and Steel Creeks.

11B—Name changed to Liberty-Fortymile.

11CC—This summer pack trail lies to the northwest of the winter sled road instead of the northeast as stated in the 1924 report.

11D—This winter sled road is an extension of Route 11K. From Steel Creek it follows the bed of the Fortymile River to the mouth of Canyon Creek, up the latter to its head, over a divide and up the right limit of Walker's Fork to within 5 miles of the International Boundary.

11E—Improvement to wagon road standard was continued to a distance of 4 miles from Eagle.

11F—This trail is incorrectly described in the 1924 report. It climbs the ridge west of Jack Wade postoffice following around the head of Napoleon Creek and drops down to the crossing of the Fortymile River at Franklin. It then climbs the ridge following the right limit of Kettle Gorge and drops down to a fork of Chicken where it joins the winter sled road following the right limit of Chicken Creek to Chicken postoffice. The distance from Jack Wade to Franklin by this route is 12 miles and from Franklin to Chicken 8 miles.

11G—This is a summer pack trail, constructed this season, which extends from the mouth of Steel Creek along the right limit of the Fortymile River for a distance of 5 miles to the mouth of Canyon Creek.

11MM—This winter sled road is a continuation of Route 11C leading from Jack Wade postoffice down Wade Creek to Walker's Fork and down the latter to its confluence with the Fortymile River. It serves as an alternate route from Steel Creek via Jack Wade to Chicken.

53—Numerous cutoffs have reduced the length of this route to 160 miles.

86—This route now consists of 5 miles suitable for wagon traffic and 5 miles of winter sled road.

OPERATIONS DURING YEAR

The important operations, other than routine maintenance, may be summarized as follows:

11AA—Work was started on the construction of the extension of this pack trail to Liberty. $5\frac{1}{2}$ miles of new trail were built including some side hill grading and $\frac{1}{2}$ mile of corduroy over wet ground.

11E—Work was continued on the improvement of the sled road portion of this route. A cable tram for passengers was installed over the Seventymile River.

11M—This trail was extended 2 miles beyond the hydraulic plant on Walker's Fork up Poker Creek to the Canadian boundary.

11I—A current ferry was installed over the Fortymile River at the mouth of Steel Creek.

90D—Shelter cabins.

Route	Location	Work Done	Cost
11A	Gravel Gulch	Floor, bunks and stove in cabin; floor in barn, roof repaired	\$150.00
11AA	Liberty	Floor and stove in cabin, roof repaired	125.13
11H	Dome	Cabin and barn built	560.00
Total			\$835.13

PRESENT CONDITION AND NEEDS

The summer pack trails and winter sled roads are the most important routes in this district. The summer pack trail from the American Summit through to Chicken should be brought up to serviceable condition and maintained. The sled road and trail up the Seventymile River requires additional improvement.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	29	\$ 3,135.80	\$ 108.13
Sled Road	115	1,916.31	16.66
Trail	359	13,432.56	36.37
Total	524	\$18,484.70	\$ 35.30

BETHEL SUB-DISTRICT.

Supervised from the Juneau Office

Earle M. Forrest, District Superintendent, Bureau of Education,
Akiak, Inspector.

This sub-district includes the lower Kuskokwim Valley and the Yukon-Kuskokwim portage routes. It contains no road projects. The important activities are located along the coast line or the Kuskokwim River so that summer transportation is by boat, supplemented by short trails. Winter transportation is by dog sled.

During the past three years this Commission has established a much needed winter trail extending from McGrath in the upper

Iditarod system by way of the Flat-Crooked Creek trail. The route is largely on the Kuskokwim River but improvements have been made on several important portages.

92N—Akiak-Canyon Creek (45 m² trail). This route extends from Akiak to the placer mines on Canyon Creek. The Kischlakik and Kusluk Rivers are crossed enroute by ferries.

92O—This route leads from the mouth of the Tuluksak River on route 92M up the Tuluksak to the mining operations on Bear Creek, one of its tributaries.

92P—This winter trail connects Holy Cross on the Yukon River with the Bethel system of trails, striking the Kuskokwim River at Kaltshak. It follows closely the Paimiut portage.

OPERATIONS DURING YEAR

The important operations, other than routine maintenance, may be summarized by routes as follows:

90D—Shelter Cabins, 4th Division.

Route	Location	Work Done	Cost
92M	Ophir Creek	Cabin built, stove installed	\$290.00
92M	Bogus Creek	Corrugated iron roof placed	50.00
92O	Tinhouse cabin	Corrugated iron roof placed	50.00
92O	Foothills Cabin	Corrugated iron roof placed	50.00
Total			\$440.00

92B—A bridge consisting of one 30-foot center span and two 35-foot approaches was built over Bethel Slough. All portages were improved and staked.

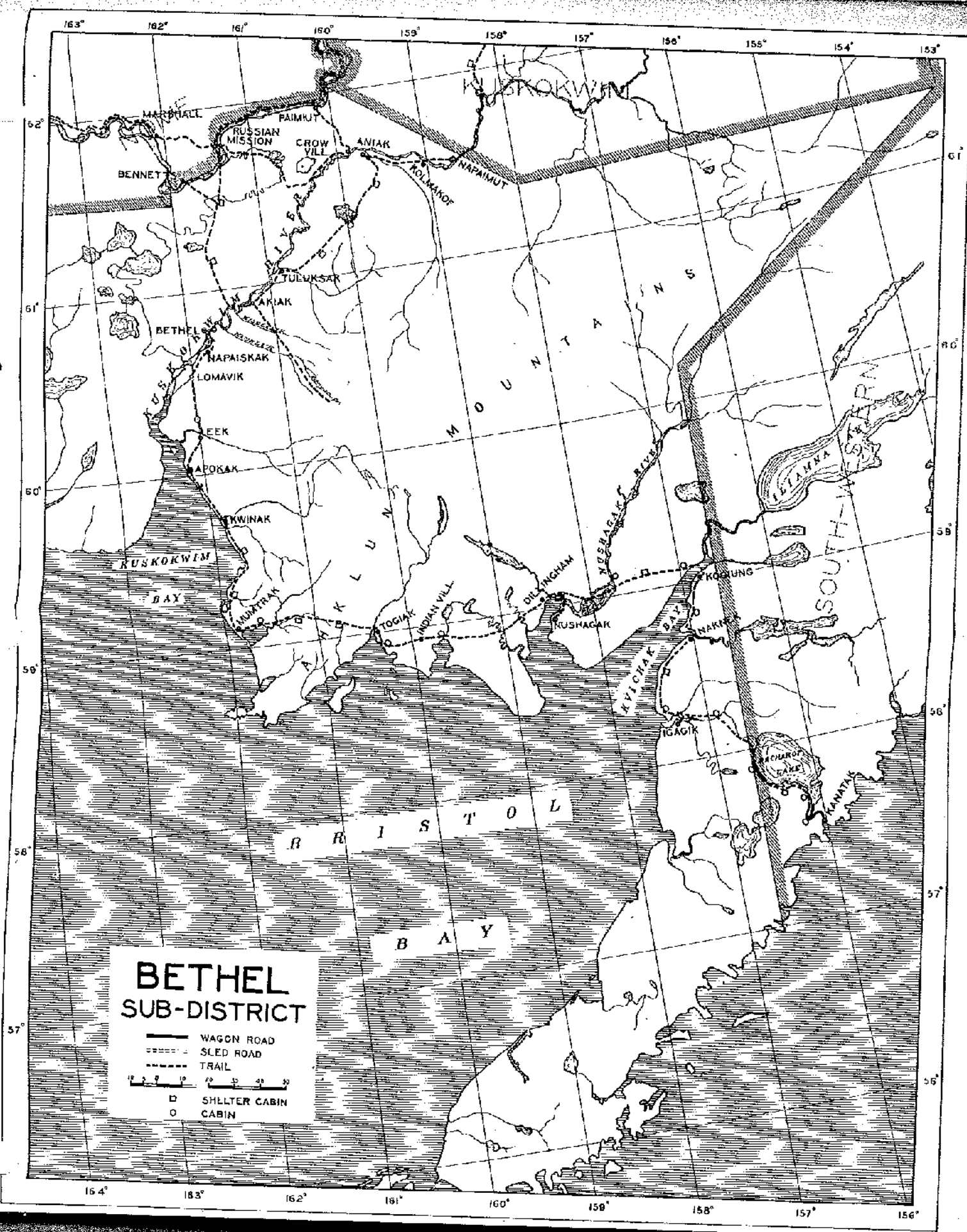
92H—Shelter cabins have been built and stoves installed at Tuklong River and Birch Creek, but bills had not been paid at close of fiscal year.

92I—A shelter cabin has been built and stove installed at the mouth of Portage Creek, but bills had not been paid at the close of the fiscal year.

92L—Banks at slough crossings between Kolmakof and Anlak were graded to allow easy approach.

92N—Two ferry boats were provided for crossing the Kischlakik and Kusluk Rivers on this route.

92O—This trail was cut out ten feet wide through timber and was marked with tripods through the open country and over lakes. A sixty-four foot trestle bridge was built over Birch Creek Slough in cooperation with the New York Alaska Cold Dredging Company. This Company is hauling 900 tons of freight over this route.



**BETHEL
SUB-DISTRICT**

- WAGON ROAD
- - - SLED ROAD
- · · TRAIL
- SHELTER CABIN
- CABIN

0 10 20 30 40

163° 162° 161° 160° 159° 158° 157° 156° 155° 154° 153°

62°

61°

60°

59°

58°

57°

164° 163° 162° 161° 160° 159° 158° 157° 156°

92P--This trail was well marked. Large beacons were erected at lake crossings and arrow pointers placed on the banks of sloughs to indicate the direction of travel. All timbered stretches were cut out ten to twelve feet wide.

PRESENT CONDITION AND NEEDS

The trails within this sub-district have been considerably improved within the past four years and are now generally in fairly good condition. The trail from Egegik to Kanatak should be marked. Staking and shelter should be inspected and repaired yearly.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Trail	383	\$ 2,928.91	\$ 7.65

VALDEZ DISTRICT.

T. H. Huddleston, Supt., Valdez

This district embraces that portion of Alaska lying between 145° 19' and 147° west longitude and extending south from 61° 49' north latitude.

The principal work within this district is the maintenance and improvement of the Richardson Highway from Valdez, which is the northernmost open all-the-year-round port in Alaska to Willow Creek, a distance of 92 miles. This section of the Richardson Highway passing through Keystone Canyon and across the summit of the Coast Range, is probably the most scenic route in Alaska and has required the most expensive construction.

The Richardson Highway is supported by the Alaska Road Commission exclusively. The Valdez Dyke is maintained at the expense of the City of Valdez. Other expenditures in this district were either upon cooperative projects or exclusively Territorial projects.

SUMMARY OF ROADS

Sub-Project No.	Name of Route	Wagon Road
4BA	Valdez-Ptarmigan Drop	33
4BB	Ptarmigan Drop-Ernestine	30
4C	Ernestine-Willow Creek	29
36	Valdez-Mineral Creek	8
36A*	Cranby Road	5
36B*	South Second Street, Cordova	1/2
60	Valdez Dyke	---
Total		165 1/2

(*)--Territorial Projects.

SUMMARY OF EXPENDITURES

Sub-Project Number	Federal	Territorial	Construction	Maintenance	Total
4BA	\$93,285.68	.....	\$89,725.88	\$32,560.00	\$93,285.68
4BB	53,219.69	.....	25,047.69	28,172.00	53,219.69
4C	38,985.31	.....	22,250.31	14,725.66	36,985.31
36	2,957.45	7,209.56	6,817.01	3,341.00	10,158.01
36A	.....	349.44	.....	349.44	349.44
36B	.....	.....	.....	.....	.....
60	.....(a)	.....	.....	.....	.....(a)
Totals.....	\$185,448.13	\$ 7,550.00	\$114,350.69	\$79,147.44	\$193,933.13

(a)—Work paid for by City of Valdez, \$1,638.90, not included in expenditures.

DESCRIPTION

For detailed description see Part II, Annual Report for 1924. Routes 4BB and 4C will be found described therein under the Chitina District. The following changes and additions should be noted.

36—This road extends from the beach, about 2 miles west of Valdez, up Mineral Creek for a distance of 8 miles to an area of mining activity.

36B—This is an extension of South 2nd Street outside the city limits of Cordova.

OPERATIONS DURING YEAR

The important operations, other than routine maintenance, may be summarized by routes as follows:

4BA—One mile of new road (relocation) was completed and gravel surfaced, 1,000 feet of road (relocation) completed to new crossing of Bear Creek and the Bear Creek bridge, a 150-foot suspension span, was re-erected at the new site. Extensive repairs were made to the glacier stream bridges near Valdez, consisting of the complete renewal of 1,500 linear feet pile trestle, renewal of floor planks and placing additional stringers. Extreme high water in Lowe River caused encroachment on the road in a number of places, necessitating widening, 2,500 cubic yards rock removed, 3½ miles of gravel surfacing were placed.

4BB—1,000 feet of new road (relocation) completed and gravel surfaced, removing road above flood water of the Tsaina River. 1½ miles road were regraded and 3½ miles surfaced with gravel. 47 metal and 25 timber culverts installed.

4C—11 miles road gravel surfaced, 1 mile regraded and widened, 78 metal culverts placed.

36—2 miles of road hand graded 8 feet wide, one culvert and one bridge (15 linear feet) constructed.

60—376 linear feet of dyke, destroyed by extreme high water in the fall of 1925, were rebuilt by the City of Valdez. The same type of construction as in the original dyke was used, consisting of a gravel fill protected on the outside with brush held down by wire netting covered with rock. Total expenditure by the City of Valdez, \$4,638.00.

PRESENT CONDITION AND NEEDS

The section of the Richardson Highway through this district is now in fair condition throughout the summer months for the operation of motor vehicles not heavier than the one ton truck. From the early part of October to the latter part of June the road is closed to auto traffic by snow at Thompson Pass. Two and a half miles of the road require relocation to avoid floods of Lowe River. General improvements throughout, including widening, regrading, gravelling and construction of culverts, are required in order to bring this portion of the highway up to the standard of other parts.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	105	\$192,996.12	\$1,837.69

CHITINA DISTRICT.

- Frank Shlpp, Superintendent, July 1, 1925 to Dec. 31, 1925
Asst. Supt. Jan. 1, 1926 to June 30, 1926
- R. J. Shepard, Superintendent, Jan. 1, 1926 to June 30, 1926
- J. G. Truitt, Junior Engineer, McCarthy, July 1 to Sept. 15, 1925

This district includes that part of Alaska lying between the 141st and 147th meridians, west longitude, and south of 63° 30' north latitude, with the exception of the area west of 145° 10' west longitude and south of 61° 49' north latitude which comprises the Valdez district.

The most important project within the district is the Richardson Highway extending from Chitina on the Copper River and Northwestern Railway up the Copper and Gulkana River Valleys and then across the Alaska Range through Isabelle Pass to Rapids on the Delta River.

The Richardson Highway and all other projects in this district are supported by the Alaska Road Commission exclusively with the exception of the Territorial projects out of Strelma. Shelter cabins are supported by the Territory exclusively.

SUMMARY OF ROADS

Sub-Project No.	Name of Route	Wagon Road	Trail	Total Miles
6D	Chitina Depot	15	...	75
6B	Chitina-Tonsina	21	...	24
6A	Tonsina-Willow Creek	36	...	36
4D	Willow Creek-Gulkana	21½	...	21½
4E	Gulkana-Sourdough	18	...	18
4F	Sourdough-Mile 168	38	...	38
4G	Mile 168-Delta River	25½	...	25½
4HI	Delta River-Rapids .....	...	78	78
51	Nizina-Chisana Trail .....	...	60	60
56A	Katalla-Yakataga	12	...	12
57	McCarthy-Nizina	12½	...	12½
57A	Nizina River Bridge	6	...	6
51*	Strelna-Kukulana	12	28	40
51F*	Nugget Creek Extension .....	...	40	40
65A	Gulkana-Chestochina .....	...	140	140
65B	Chestochina-Slate Creek .....	...	...	...
65C	Chestochina-Tanana Crossing .....	...	...	...
65G	Slana-Chisana Recon. .....	...	...	...
90C	Shelter Cabins, 3rd Division .....	...	...	...
Totals		220½	346	568½

(*)—Territorial Projects.

SUMMARY OF EXPENDITURES

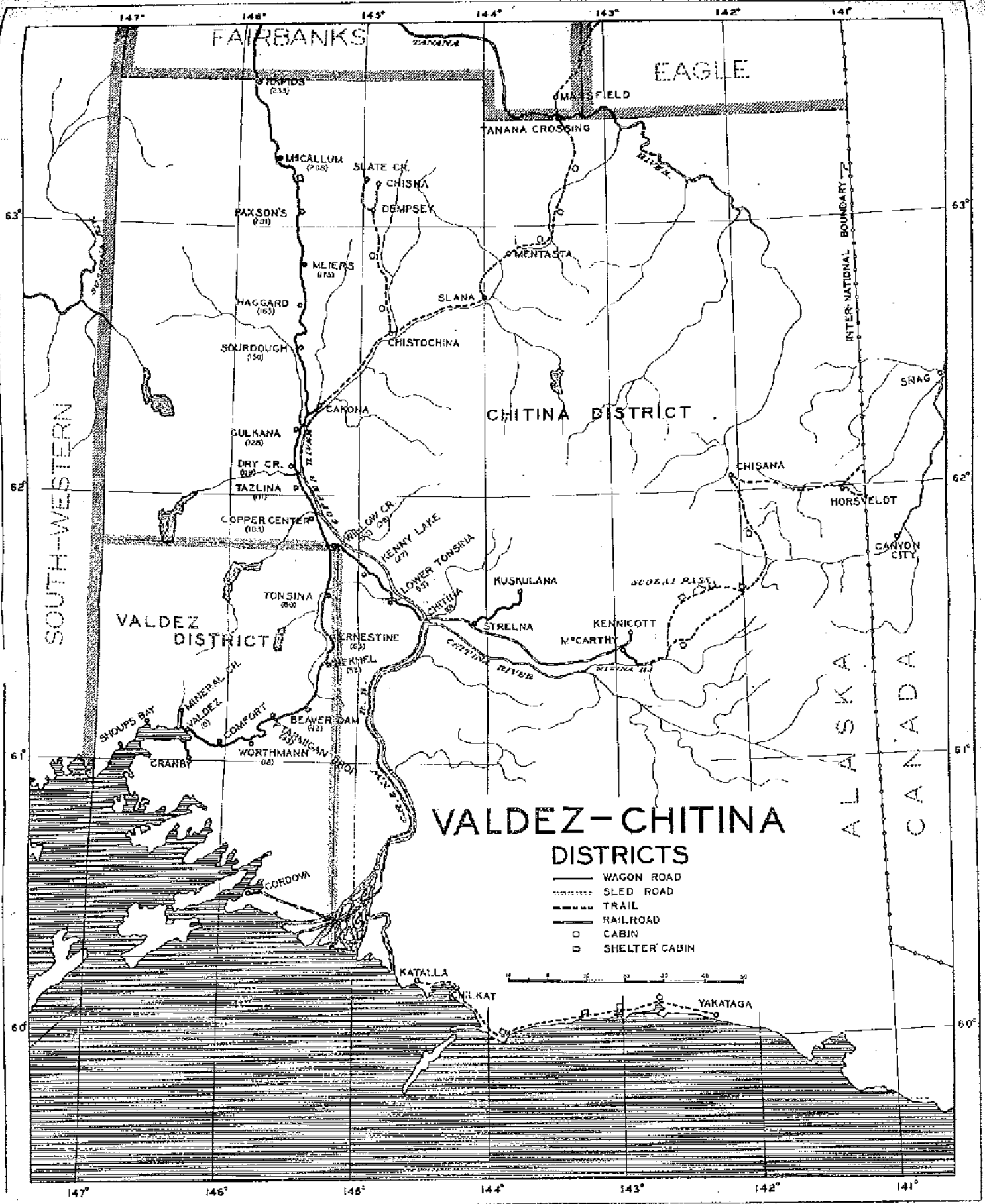
Sub-Project Number	Federal	Territorial	Construction	Maintenance	Total
6D	\$ 4,180.78	.....	3,380.78	750.00	\$ 4,130.78
6B	12,440.06	.....	5,230.09	7,220.00	12,440.08
6A	21,885.85	.....	15,835.85	5,750.00	21,885.85
4D	54,704.39	.....	39,504.39	15,200.00	54,704.39
4E	8,818.20	.....	500.00	7,616.20	8,818.20
4F	14,154.59	.....	8,754.59	5,400.00	14,154.59
4G	30,911.00	.....	11,711.00	19,200.00	30,911.00
4HI	59,971.57	.....	24,551.57	26,320.00	59,971.57
51	770.19	.....	770.19	.....	770.19
56A	.....	.....	8,291.98	8,290.00	16,581.88
57	15,581.88	.....	3,000.00	3,876.35	6,876.35
57A	6,576.35	.....	.....	1,321.44	1,321.44
61	.....	1,321.44	.....	.....	1,321.44
61F	.....	.....	.....	.....	.....
65A	21,285.06	.....	19,100.06	2,185.00	21,285.06
65B	.....	.....	.....	.....	.....
65C	.....	.....	.....	.....	.....
65G	385.04	.....	385.04	.....	385.04
90C	.....	2,951.78	2,544.48	417.30	2,951.78
Totals.....	\$211,912.08	\$ 4,283.22	\$141,419.91	\$101,746.29	\$216,196.20

DESCRIPTION

For detailed description see Part II, Annual Report for 1934. Routes 57, 57A, 54 and 56A will be found described therein under the Valdez district. The following changes and additions should be noted:

6D—This covers the headquarters buildings for this district. Storage shed for equipment and blacksmith shop were added this year. A large log barn was rebuilt.

57—This road extends from McCarthy to the Nizina River which is crossed on bridge described below. It then extends 2 miles up the left limit of the Nizina River. Further extension is contemplated.



FAIRBANKS

EAGLE

CHITINA DISTRICT

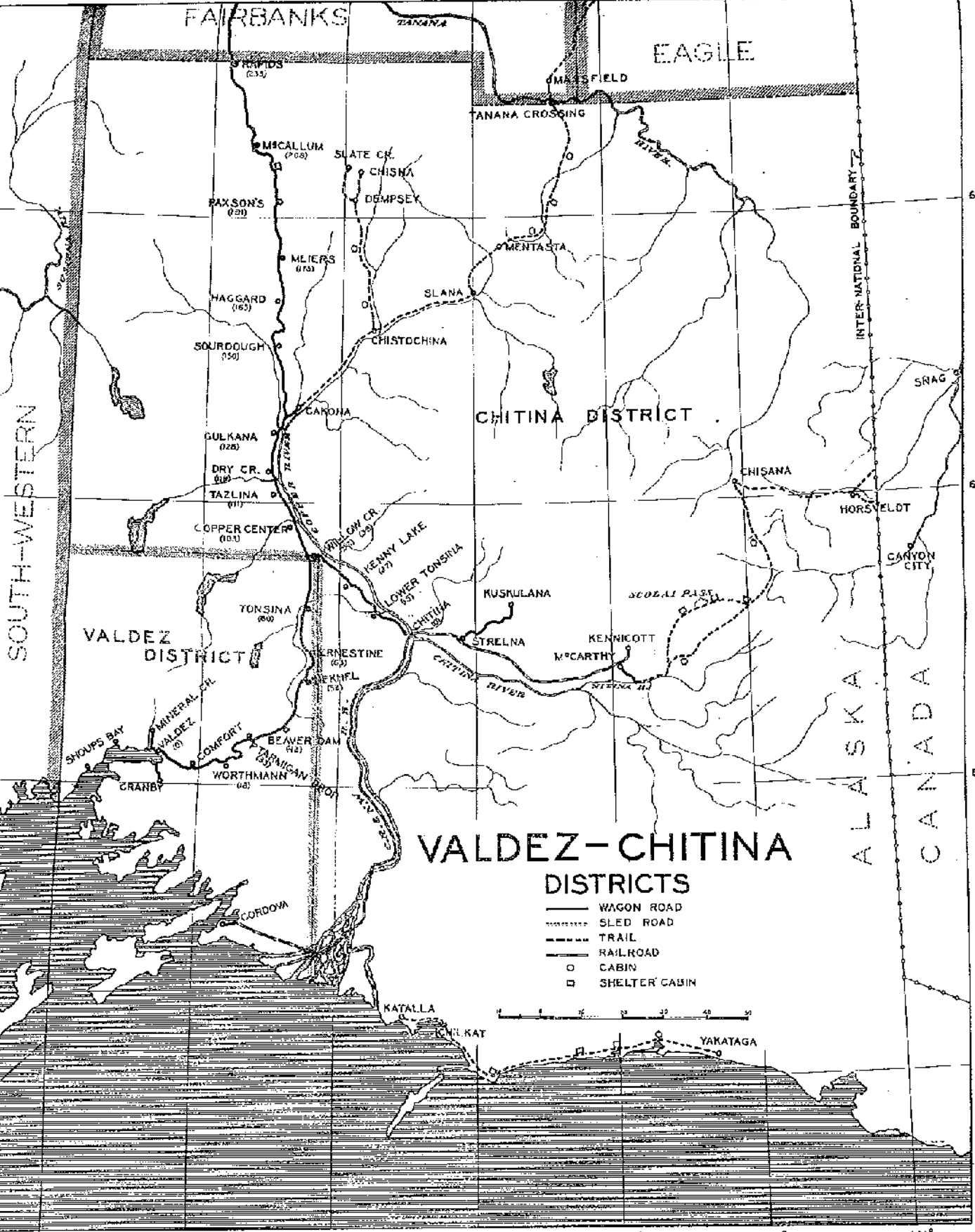
VALDEZ DISTRICT

VALDEZ-CHITINA DISTRICTS

ALASKA
CANADA

SOUTH-WESTERN

INTERNATIONAL BOUNDARY



57A—This bridge has been completed. It consists of two wooden Howe Truss spans of 180 ft. resting on concrete piers and 1680 feet of pile trestle approach.

61—This road leads from Strelna on the C. R. and N. W. Railroad, up the right limit of the Kuskulana River to Mile 11 where it crosses to the left limit and extends to Bergs Mill. A substantial bridge across the Kuskulana River built by the Territory gives access to the operations on the left limit.

61B—This road, originally carried as part of Route 61, Strelna-Kuskulana, branches from the latter route at its Mile 10 and extends to copper properties on Nugget Creek. It was built by one of the mining companies and has since been maintained by the Territory.

55A—The wagon road was extended during the past year so that this route now consists of 12 miles wagon road and 23 miles trail.

65G—This route leaves route 65C, 25 miles east of Chestochina. Crossing the Slana River it extends over a low divide into the Nabesna River valley. This valley and another divide are crossed by the Chisana River valley. Crossing this valley the Chisana office is reached.

OPERATIONS DURING YEAR

The important operations, other than routine maintenance, may be summarized as follows:

Richardson Highway, Chitina to Rapids:—New bridges consisting of 447 linear feet of pile trestle were built over the two crossings of the Klutina River. Bridges were renewed at 5 and 10 Mile consisting of 80 linear feet framed bent trestle. 101 metal culverts were installed, 30½ miles of road surfaced with gravel and 13 miles of road regraded. One mile of road along the Delta River was removed from bar and placed on new location above high water. This work was partially completed. The dyke at Gun Creek was raised and widened sufficiently to allow its use as the roadway.

6D—Log barn was rebuilt. Shed for equipment 18'x14', blacksmith shop 22'x30' and repair shop 16'x26' were added this year.

57—Road was widened and ditched Miles 3 to 9. Short sections were corduroyed and wet spots gravel surfaced. The road was graded 2 miles beyond the Nizina River bridge to the crossing of Young Creek.

65A—This road was cleared, grubbed and partially graded to the 12 Mile post. Three miles of additional clearing were accomplished. Forty-five timber culverts were constructed.

63G—A reconnaissance was made over this proposed route in connection with Route 52. Two boats to be used as a ferry were tested at the crossing of the Slana River.

90C—Shelter cabins.

62 ANNUAL REPORT ALASKA ROAD COMMISSION.

Route	Location	Work Done	Cost
54	Homestead, Scorial and Fraderika	Roofs covered with corrugated iron, repairs, and stoves installed	\$ 417.30
54	On Rohn Glacier 16 miles from foot of Nizina Glacier	10x12 frame cabin with stove and corrugated iron roof	989.10
54	Solo Mountain	10x12 log cabin with stove and corrugated iron roof	939.11
654	Cooper Pass	Purchase stove and corrugated iron roof	56.27
65C	Jack Lake	12x14 log cabin with stove and corrugated iron roof	560.00
Total			\$2,961.78

PRESENT CONDITION AND NEEDS

The Richardson Highway from Chitina to Rapids is suitable for motor cars not larger than one ton trucks. Many stretches require gravelling to put them in first class condition. About half a mile of sidehill cut partly in rock, must be completed along the Delta River where the road is now partly on the river gravel and subject to overflow.

The McCarthy-Nizina road should be extended to Dan Creek.

Some improvement should be made on the trail system into the Chisana and Nabesna regions.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	214½	\$241,964.23	\$1,122.04
Trail	166	1,279.19	11.98
Totals	320½	\$243,234.42	\$ 758.93

FAIRBANKS DISTRICT.

M. C. Edmunds, Supt.

Donald MacDonald, Asst. Supt.

Abe McKinnon, Asst. Supt.

This district embraces that portion of the Territory between the 144th and 148th meridians and between the Yukon River on the north and the Alaska Range on the south; also that territory north of the Yukon River from the 144th to the 150th meridian.

The most important project within this district is the Richardson Highway from Rapids to Fairbanks and its extension to Circle, construction of which is now in progress. The maintenance and improvement of the local road system around Fairbanks serving the mines and farms is also of extreme importance. A number of minor projects serve isolated mining communities.

The Richardson Highway is supported exclusively by the Alaska Road Commission; shelter cabins and aviation fields exclusively by the Territory. Of the remaining projects in this district, the through routes are supported by the Alaska Road Commission, less important projects by the Alaska Road Commission and the Territory jointly, and the purely local projects by the Territory exclusively.

FEDERAL PROJECTS.

SUMMARY OF ROADS

Project Number	Name of Route	Wagon Road	Sled Road	Trail	Total Miles
11	Rapids-Grundler	48	---	---	48
	Grundler-Richardson	291 1/2	---	---	291 1/2
	Richardson-Salchaket	30	---	---	30
	Salchaket-Fairbanks	49	---	---	49
11A	Salcha Bridge	---	---	---	---
	Summit-Chatskanie	11	---	---	11
	Esler Creek	13	---	---	13
	Fairbanks-Gilmore	13	---	---	13
	Gilmore-Summit	6	---	---	6
	Fairbanks-Chena Hot Springs	---	64	---	64
	Goldstream-Glendon Creek	---	6	---	6
	Wireless Road	1 1/2	---	---	1 1/2
	Circle-Miller House	49	---	---	49
	Chatskanie-Miller House	32 1/2	48 1/2	---	81
	Snowshoe-Beaver	---	---	101	101
	Beaver-Care	75	---	---	75
	Sig Creek Trail	---	---	20	20
	Care-Flat Creek	---	45	---	45
	Care-Caldwell	---	---	55	55
	Caribou-Care	---	16	---	16
	Circle-Ft. Yukon	---	---	67	67
	Fort Yukon Aviation Field	---	---	---	---
	Fairbanks Bridge	---	---	---	---
	Fairbanks Depot	---	---	---	---
	Grundler-Tarleton Crossing	---	---	113	113
	Shelter Cabana	---	---	---	---
	Totals	335 1/2	209 1/2	333	938 1/2

SUMMARY OF EXPENDITURES

Project Number	Federal	Territorial	Construction	Maintenance	Total
11	\$18,717.69	---	\$19,517.69	\$19,200.00	\$38,717.69
	27,110.00	---	15,189.00	9,920.00	52,110.00
	47,292.64	---	29,082.64	18,210.00	94,585.28
	13,500.00	---	15,077.92	13,250.00	41,827.92
11A	14,982.00	---	12,207.85	2,795.00	29,984.85
	12,154.40	---	9,354.40	4,500.00	26,008.80
	1,122.71	9,657.60(a)	320.00	2,279.01	13,180.32
	84,420.11	---	27,930.87	6,500.00	118,850.98
	7,824.88	---	4,614.88	3,120.00	15,560.76
	1,110.00	300.00	500.00	1,200.00	2,110.00
	---	---	---	15.00	15.00
	11,085.91	---	---	3,135.91	14,221.82
	137,479.43	---	141,200.48	13,189.00	291,868.91
	523.31	450.00	---	913.51	1,426.82
	14,410.10	---	5,250.00	9,220.10	29,880.20
	1,600.00	---	1,600.00	---	3,200.00
	529.32	---	---	529.32	1,058.64
	---	---	---	125.71	125.71
	1,219.65	---	---	1,219.65	2,439.30
	---	(b) 1,190.59	1,190.89	---	2,381.48
	12.85	---	---	12.85	25.70
	3,043.99	---	3,043.00	---	6,086.99
	602.28	---	602.28	---	1,204.56
	---	1,002.35	572.45	120.20	1,695.00
	Totals	\$ 5,440.54	\$28,714.46	\$12,210.19	\$46,365.19

Includes \$102.00 from Fairbanks Exploration Co. and \$355 from City of Fairbanks in account of furnishing gravel from dragline.
 (a) \$20,000 money and labor contributed by the citizens of Fort Yukon, not included in expenditures.

DESCRIPTION

For detailed description see Part II, Annual Report, 1924.

The following changes and description of new routes will be noted:

4KA—This bridge over the Salcha River 40 miles south of Fairbanks on the Richardson Highway consists of one 150-foot steel Pratt truss span and 345 feet of pile trestle approach. It replaces the ferry formerly used at this point.

16—Construction of the wagon road was extended to 32½ miles from Chatauika, reducing the sled road mileage by this distance.

23A—This route extends from the old Snowshoe Roadhouse, 14 miles from Olmes on the Olues-Livengood trail, route 7K, to Beaver on the Yukon River.

53A—This winter trail extends from Circle at the end of Route 15 to the trading center of Ft. Yukon. The route parallels the Yukon River on its left limit to within 16 miles of Ft. Yukon from which point it follows the river ice.

53B—This landing field is located ¾ miles from the village of Fort Yukon and is 300 feet by 1,400 feet.

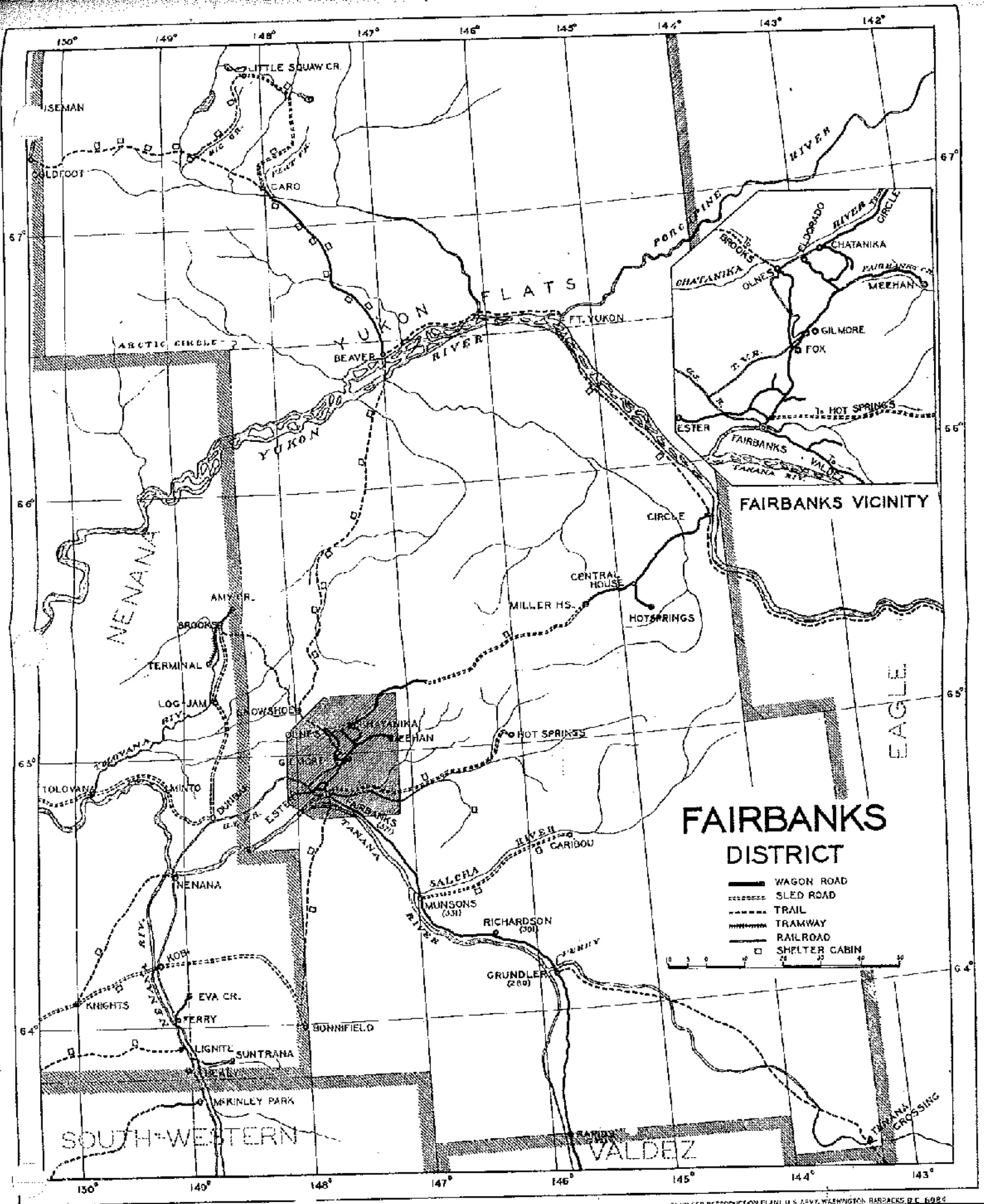
59A—This comprises the district headquarters buildings including a combination warehouse, office and warm storage 30'x100', garage and repair shop 30'x30', equipment shed 20'x70', oilhouse 20'x30' and a dog barn 20'x30'.

OPERATIONS DURING YEAR

The important operations other than routine maintenance may be summarized by routes as follows:

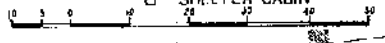
Richardson Highway, Fairbanks to Rapids. 22,602 cu. yds. of gravel were placed resulting in a heavy gravel surface over 11½ miles and a light gravel surface over 9 miles. 1,980 cu. yds. of gravel were placed repairing surface over 4 miles. 4 miles of new road (relocation) were cleared, grubbed and graded. 13 miles of road were regraded and widened in preparation for surfacing. 119 metal culverts were installed, 86 linear feet of frame bent trestle bridge, 120 linear feet of pile trestle bridge and one 100-foot Howe truss span were constructed, all being renewals. Six 10'x12' oilhouses were erected at different points in this section for the safe storage of oil and gas for use by the Commission's vehicles. The ferry at Grundler was entirely renewed.

4KA—The revetment and bank protection were reinforced and extended to protect the south abutment to the steel span.



FAIRBANKS DISTRICT

- WAGON ROAD
- SLED ROAD
- TRAIL
- TRAMWAY
- RAILROAD
- SHELTER CABIN



7A—5 miles were regraded and widened, 2¼ miles surfaced, 15 metal culverts installed and one 16-foot span bridge renewed.

7D—One bridge of two 15-foot spans was renewed, 400 linear feet of new road (relocation) constructed, and 2 metal culverts installed.

7G—20,428 cu. yds. of surfacing material were placed resulting in heavy gravel surface over 10 miles and repairs to surface over 2 miles. The average haul for this material was 3 miles. 12 miles were regraded in preparation for the surfacing. 59 metal culverts were installed.

7I—900 linear feet of new road (relocation) consisting of 1,020 cu. yds. of fill were built, 80 linear feet of trestle bridge were constructed, all renewal, 3 metal and 3 timber culverts installed.

16—11¼ miles of new road were constructed including clearing, grubbing, grading and the installation of necessary culverts and bridges. 3,332 cu. yds. of gravel were placed as surfacing on 4 miles of road previously constructed including new surface and repairs to old surface, 1,566 cu. yds. of gravel surfacing placed on short sections of new road, 1,000 linear feet of corduroy were placed, 10 linear feet of native timber stringer bridges constructed and 111 metal culverts installed. Clearing was completed 13½ miles and grubbing 3 miles beyond the present end of the road. A definite location was completed through to Miller House. The distance from Chatanika to Miller House on the located line is 87¼ miles.

23B—This entire route was improved. 7 miles of new road (relocation) were cleared and grubbed, sufficient hand grading being performed to level up the road. Stumps were grubbed from portions of old road, 180 linear feet of corduroy were placed and covered and 38 timber culverts installed.

53E—A landing field suitable for airplanes now in service was constructed three quarters of a mile from the village of Fort Yukon. This field was cleared and grubbed 300'x1400', uneven places leveled and the whole area plowed, harrowed and rolled. Several days' work will be required to complete this field and grass seed will be sown. The citizens of Fort Yukon cooperated in the construction to the extent of \$600 in money and labor.

59A—Heating plants were installed for the office and warm storage and for the garage and blacksmith shop. A spur track was laid from The Alaska Railroad yards to the oilhouse and warehouse, a well and well pump were placed under the warehouse. The entire area around the buildings was covered with gravel.

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90D—Shelter Cabins.

Route	Location	Work Done	Cost
7K	Globe Creek	12'x12' cabin built, stove installed	\$ 220.90
7K	Tatatina Creek	16'x7' cabin built, stove installed	221.00
23A	Mile 40	14'x18' cabin built	200.00
23A	Mile 81	Roof renewed	100.00
23A	Mile 91	Stove installed	26.20
52A	Mile 34	12'x14' cabin built, stove installed	330.55
Total			\$1,092.65

PRESENT CONDITION AND NEEDS

Richardson Highway. This road is entirely suitable for automobile travel only in dry weather, there being sections badly in need of some kind of surfacing. Several short relocations are necessary to eliminate excessive grades, and a number of old native timber bridges will require renewal.

Fairbanks Local Roads. Increased motor traffic makes necessary the continued improvement of these roads to provide good drainage and some kind of surface.

Chatanika-Circle. This project should be pushed to connection with the Miller House-Circle Road as fast as possible. Fifty-five miles remain to be constructed to make this connection.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	333 1/4	\$335,522.29	\$1,142.75
Stage Road	203 1/2	3,356.09	16.49
Trail	301	4,706.23	15.63
Totals	842 1/4	\$338,584.67	\$ 467.02

TERRITORIAL PROJECTS.

Territorial Road Commission, Fourth Division.

M. C. Edmunds, Chairman and Secretary.

Jake Mutchler, Member.

John Soll, Member.

SUMMARY OF ROADS

Sub-Project	No. Name of Route	Wagon Road	Trail	Total Miles
7AA	Clary Creek Road	3	0	3
7B	Fox-Olmes	13	0	13
7C	Summit-Fairbanks Creek	13	0	13
7DA	College Spur	1 1/2	0	1 1/2
7DB	St. Patrick's Creek	2 1/2	0	2 1/2
7CA	Lazelle Road	2 1/2	0	2 1/2
7H	Little Eldorado Creek	6	0	6
7K	Olmes-Livengood	0	54	54
7N	Farmers-Birch Hill	3	0	3
7NA	Isabelle Creek	2	0	2
7S	Crathl Bridge	0	0	0
7T	Farmers-Chena Slough	4 1/2	0	4 1/2
16A	Central House-Circle Hot Springs	9	0	9
53D	Brooks-Aviation Field Road	1 1/2	0	1 1/2
Totals		66 1/2	54	120 1/2

SUMMARY OF EXPENDITURES
Territorial Divisional Funds

Sub-Project Number	Construction	Maintenance	Total
7AA	\$ 685.48	\$ 290.00	\$ 975.48
7B	.....	144.50	144.50
7C	1,290.00	2,357.53	3,647.53
7DA	.....	98.00	98.00
7DB	2,592.78	.....	2,592.78
7GA	.....	156.33	156.33
7H	.....	547.67	547.67
7K	.....	313.25	313.25
7N	.....	814.59	814.59
7NA	.....	19.00	19.00
7S	.....	.....	.....
7T	295.14	295.00	590.14
15A	.....	239.50	239.50
83D	455.00	.....	455.00
Totals	\$ 6,263.33	\$ 6,021.67	\$ 12,285.00

760—In addition, the citizens of Brooks contributed \$225 in labor.

DESCRIPTION

For detailed description see Part II, Annual Report for 1934. The following changes will be noted:

Route 7AA—This route was a portion of road formerly included in Route 7A, Summit-Chatanika, which was abandoned in favor of a new location. It serves mining operations along Cleary Creek and the town of Cleary.

7DB—This route branches from the Ester Creek Road, Route 7D, Mile 11 and extends 1 1/2 miles to quartz mines on Ester Dome. A branch of this road 1/2 miles long serves a quartz mill at the head of St. Patrick's Creek.

83D—This road connects the village of Brooks with the newly constructed airplane landing field.

OPERATIONS DURING YEAR

Work the past season consisted chiefly of maintenance on the Athabaska local roads.

The following new work was accomplished:

7DB—One and three quarters miles of new road were cleared, grubbed and graded, leading to the lode mines on Ester Dome. A maximum grade of 6 1/2% was obtained. A branch road three quarters of a mile in length was cleared, grubbed and graded to the quartz mill at the head of St. Patrick's Creek. 14 timber culverts were installed and 200 linear feet of corduroy built.

83D—An old road was rehabilitated. One-half mile was graded, 200 linear feet of corduroy laid and covered and 3 timber culverts installed. Citizens of the village of Brooks contributed \$225 in

PRESENT CONDITION AND NEEDS

A large part of the roads included in this group are of graded earth type serving small farm areas or mines. These roads are only suitable for motor traffic in dry weather, but need only yearly maintenance to keep them in their present condition. The roads to Nome and Fish Creeks should be constructed provided cooperation is secured from the mining companies benefitted. Minor improvements and extensions should be made as needed.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	66½	\$11,761.75	\$ 176.87
Trail	54	513.25	9.47
Totals	120½	\$12,275.00	\$ 92.65

NENANA DISTRICT.

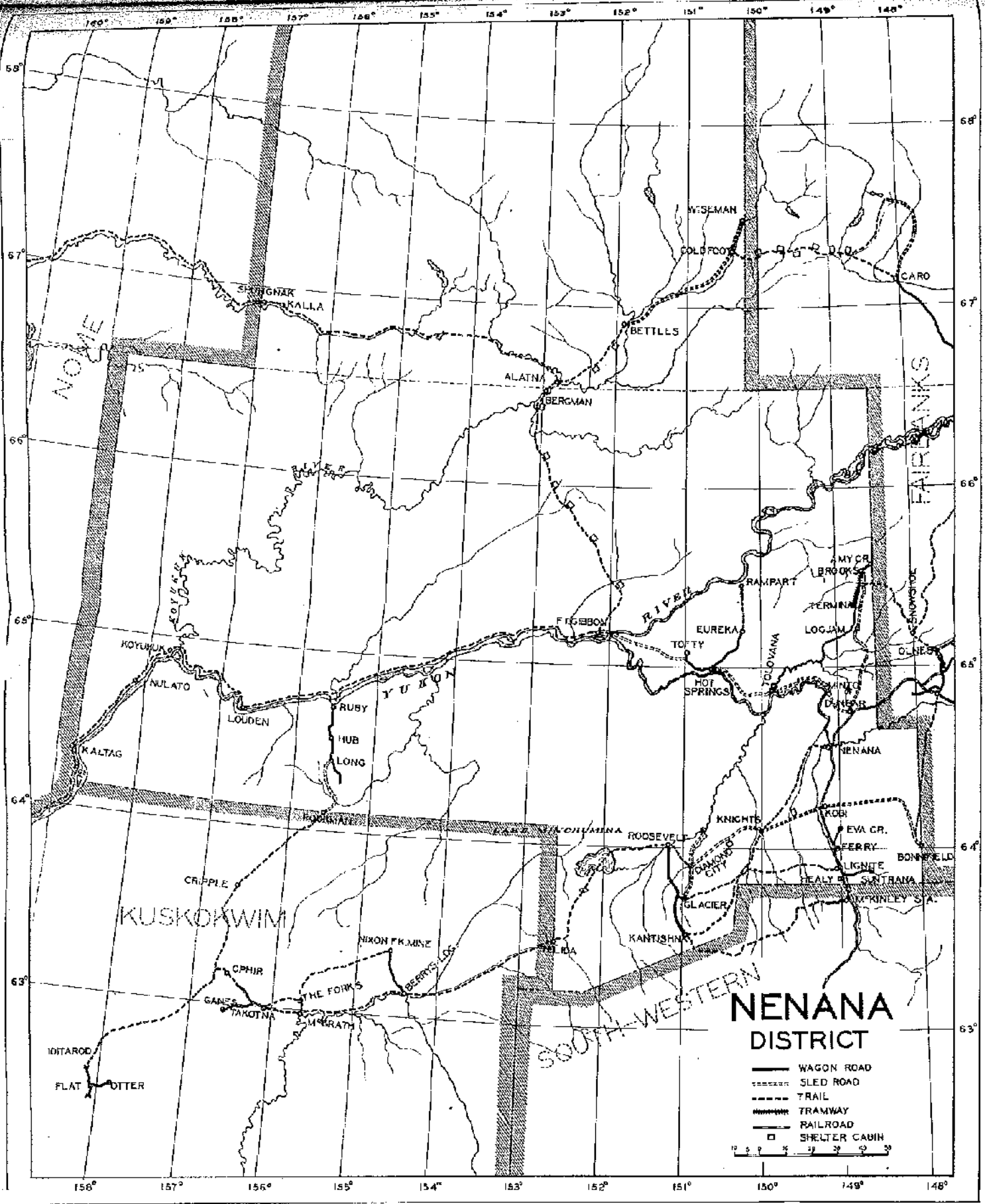
H. G. Haslem, Superintendent, Fairbanks

This district is roughly described as extending south from the Arctic Ocean between 150° 11' and 157° west longitude as far as the Arctic Circle, thence south between 148° 30' and 158° 41' west longitude to the northern boundary of Mt. McKinley National Park. It is more accurately shown on the accompanying map. It includes the important mining districts of the Kantishna, Livengood, Hot Springs and Bonafield.

This district is well served so far as summer transportation is concerned by a number of navigable rivers, the most important of which are the Yukon, Tanana, Koyukuk, Tolovana and Kantishna. These rivers and The Alaska Railroad have made the construction of long roads unnecessary. A number of short roads have been built connecting important mining centers with navigable water or the railroad.

The district has an extensive system of winter sled roads and trails, the most important of which are the route from Dumar through Ft. Gibbon to Kaltag which carries the winter traffic to the Seward Peninsula and the route from Kobi through Roosevelt to Telida and McCrath which carries the winter traffic to the Kuskokwim district.

Shelter cabins and aviation fields are supported exclusively by the Territory. Of the remaining projects in this district, the through routes are supported by the Alaska Road Commission and less important projects by the Alaska Road Commission and the Territory jointly.



SUMMARY OF ROADS

Sub-Project No.	Name of Road	Wagon Road	Slid Road	Trail	Total Miles
1A	Duncan-Ft. Gibbon	...	115	...	115
1B	Rampart-Eureka	8	191 ²	...	274 ²
1C	Ft. Gibbon-Keshag	...	...	257	257
1D	Hot Springs-Sullivan Creek	16	...	...	16
1E	Ft. Gibbon-Bentley	...	...	156	156
1FA	Rubin-Whidbey	...	521 ²	...	521 ²
1FB	Hot Springs Landing-Eureka	34	...	...	24
1FC	Hot Springs-Tolly	...	16	...	16
1FD	Ruby-Long	251 ²	...	...	281 ²
1FE	Long-Poodina (summer)	19	...	...	19
1FEE	Long-Poodina (winter)	...	29	...	29
1F	Ruby Aviation Field	...	...	...	...
1G	Kobu-Eureka	...	95	...	95
1GA	Rubin-Rainier	34	...	...	34
1GB	Lignite-Machiasse	...	55	...	55
1GC	Nenana-Rogers Roadhouse	...	42	...	42
1GD	Diamond-Idalus	...	56	...	56
1GE	Nenana Cemetery	2 ²	...	...	2 ²
1GF	Rubin-Rainier	...	49	...	49
1GH	Lake Minchumina Aviation Field	...	...	...	...
1GI	Coddick-Wishman	...	11	...	11
1GJ	Wiseman Aviation Field	...	...	...	...
1GK	Dunbar-Drooks	...	62	...	62
1GL	Brooks-Arry Creek	...	...	...	4
1GM	Brooks-Idem	...	...	...	13
1GN	Livinstock Aviation Field	...	...	...	...
1GO	Minduska-Pouge Kecon	...	...	...	...
1GP	Ferry-Lva Creek	...	11 ²	...	11 ²
1GQ	Shaber Cabin	...	...	...	...
Totals		1451 ²	446	230	1221 ²

SUMMARY OF EXPENDITURES

Sub-Project Number	Federal	Territorial	Construction	Maintenance	Total	
1A	\$ 1,440.43	.....	.....	\$ 1,440.43	\$ 1,440.43
1B	514.69	.....	.....	514.69	514.69
1C	484.19	2,501.15	.....	3,075.55	3,075.55
1D	780.75	.....	.....	780.75	780.75
1FA	130.75	.....	.....	130.75	130.75
1FB	1,973.77	4,066.69	1,560.00	5,475.77	6,973.77	
1FC	1,258.47	.....	609.69	658.47	1,258.47
1FD	4,183.73	.....	.....	4,183.73	4,183.73
1FE	13,925.88	.....	11,725.88	2,240.00	18,925.88
1FEE	.....	(a) 609.69	609.69	.....	609.69
1F	652.75	.....	.....	652.75	652.75
1GA	.....	.....	.....	.....	.....
1GB	.....	.....	.....	.....	.....
1GC	.....	.....	.....	.....	.....
1GD	668.89	.....	.....	668.89	668.89
1GE	203.20	400.00	.....	613.20	613.20
1GF	60.90	.....	.....	60.90	60.90
1GH	750.60	.....	750.60	.....	750.60
1GI	657.21	.....	.....	657.21	657.21
1GJ	.....	(b) 2,668.69	2,668.69	.....	2,668.69
1GK	2,206.92	3,972.99	2,590.69	1,708.92	4,206.92	
1GL	277.10	.....	.....	277.10	277.10
1GM	4,190.51	.....	.....	4,190.51	4,190.51
1GN	291.60	294.69	294.69	.....	291.60
1GO	500.00	.....	500.00	.....	500.00
1GP	11,555.73	.....	10,135.79	1,409.69	11,555.73
1GQ	.....	350.69	250.69	.....	350.69
Totals		\$44,758.37	\$15,933.15	\$29,975.67	\$28,997.85	\$50,973.82

(a)—\$200 money and labor contributed by the citizens of Ruby, not included in expenditures.
 (b)—\$1,511.25 money and labor contributed by the citizens of Wiseman, not included in expenditures.

DESCRIPTION

For detailed description see Part II, Annual Report for 1924. The following changes and additions should be noted:

- 5A—Mileage corrected to 115 miles sled road.
- 9—Reclassified, 8 miles wagon road, 19½ miles trail.
- 22—Mileage corrected to 10 miles wagon road.
- 29—Mileage corrected to 156 miles trail.

30A—This is an alternate route to route 22 between Hot Springs and Toity and is used by the mail carriers in early fall and late spring when it is not possible to travel the ice of Hot Springs Slough.

38E—This wagon road is now under construction. 10 miles have been completed and the road will be extended toward Peorman during the season of 1926.

38K—This airplane landing field is situated 1¼ miles southeast of the town of Ruby. The field is 1,500 feet long and varies from 350 feet wide at one end to 700 feet wide at the other.

46F—This road connects the town of Nenana with its cemetery and serves several farms enroute. It is suitable for wagon and light automobile traffic.

46G—This sled road gives access from The Alaska Railroad at Kobl to the Bonnifield placer district. It also serves as a pack and foot trail for summer use.

46H—This airplane landing field is situated 2½ miles south of the roadhouse at the east end of Lake Mutchumina. It is 1,500 feet long and averages 600 feet wide.

47—Reclassified, 11 miles sled road, no wagon road.

47A—This airplane landing field is situated near the village of Wiseman. It is 350 feet wide and 1,400 feet long.

63C—This tramway was purchased by the Territory on June 11, 1924, and has since been maintained and operated by this Commission. The freight rates have been reduced from \$80.00 to \$20.00 per ton.

63E—This airplane landing field is situated 1½ miles southwest of the village of Brooks. An old grain field was used in part. This field has been quite largely used by planes operating from Fairbanks.

OPERATIONS DURING YEAR

The important operations, other than routine maintenance, may be summarized by routes as follows:

5A—6,200 linear feet of new road was cut between Duggan Creek and Baker Bluff where old road had been washed away by the Tanana River.

22—146 linear feet of native timber trestle bridges were constructed (renewal), 15 timber culverts placed and 1,000 linear feet of pole corduroy laid and covered.

30—61 linear feet of native timber bridges were constructed (renewal) and 4 culverts installed. The old pile trestle over Hot Springs Slough at the town of Hot Springs was taken out by ice in the spring of 1925. A new bridge was erected consisting of one 100-foot Howe truss span and 139 linear feet of trestle approaches. Timber for the span and deck of the approaches was shipped from Seattle.

30A—Five bridges totaling 101 linear feet were constructed.

38E—Construction of this wagon road was extended to the Soatina Bridge, 18½ miles from Long. The work the past season was confined largely to the last 6 miles of this section which is over heavy moss and wet ground. A section of old road which was passable for wagons was used the past season from the 4 Mile to the 12½ Mile post. It is planned to close up this gap during the season of 1926.

Work the past season included 2 miles of corduroy laid and partially covered, 5 bridges of native timber (218 linear feet) constructed and 31 culverts built.

38K—This landing field is 1,500 feet long, 350 feet wide at one end and 700 feet wide at the other. It was cleared, grubbed and drained and was then disc-harrowed and rolled. The field is in excellent condition. Citizens of the town of Ruby cooperated with money and labor to the extent of \$600.

46H—This landing field is 1,500 feet long, 500 feet wide at one end and 700 feet wide at the other. It was cleared, grubbed and leveled and is in very good condition. It is used as an emergency landing on the route from Fairbanks to Tokotna.

47A—This landing field 1400 by 350 feet was cleared, grubbed, drained and leveled. Several landings have been made on it and it is in first class condition with the exception of a narrow strip across the field that is soft in wet weather. This area should be drained and covered with gravel. Citizens of Wiseman and vicinity contributed \$1,613.25 in money and labor to this work.

63E—A cultivated field was used in part for this landing field. An additional area 300 by 400 feet was cleared, grubbed and drained. Numerous landings have been made on this field and it is in excellent condition.

80—A reconnaissance was made during the summer of 1925 by the Engineer Officer to determine the feasibility of a summer portage route between the Kantishna and Kuskokwim rivers by way of Lake Minchumna. It was found that a route is feasible but not advisable unless the postal authorities desire to route the mail to the Kuskokwim Valley this way.

82—This wagon road was completed to the lode properties on Eva Creek during the past season. 8 miles were cleared, grubbed and graded, clearing and grubbing being very light. 3 frame bent bridges of Douglas fir (63 linear feet) and 37 timber culverts were constructed.

90D—

Route	Location	Work Done	Cost
46G	Totatlanika River	Cabin built	\$175.00
46G	Totatlanika River	Cabin built	175.00
Total			\$350.00

PRESENT CONDITION AND NEEDS

The roads in this district were built for wagon traffic for which they are, in general, adequate. The road from Long southward should be extended to Poorman. The Brooks tram requires further improvement and its extension to Log Jam is considered advisable provided funds can be obtained for snagging the Tolovana River below that point. The construction of a portage from Lake Minchumna to the North Fork of the Kuskokwim River to enable the summer mail for the Kuskokwim district to be carried via the Kantishna and Kuskokwim Rivers has been investigated and found feasible.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	80½	\$40,611.38	\$ 418.75
Tramway	12	4,190.59	322.95
Sled Road	397½	8,413.61	21.17
Trail	503	2,263.64	4.50
Totals	1,064	\$55,479.32	\$ 55.28

SOUTHWESTERN DISTRICT.

Hawley W. Sterling, Superintendent, Anchorage, Alaska

Anton Eide, Assistant Superintendent, Seward, Alaska.

Anton Anderson, Junior Engineer, July 1 to Dec. 11, 1925.

This district includes the Kenai Peninsula, the northern part of the Alaska Peninsula, Kodiak Island, and all the territory tributary to The Alaska Railroad as far north as the northern boundary of Mt. McKinley National Park.

The Alaska Railroad, the Yentna River, and Cook Inlet and other arms of the Gulf of Alaska provide through transportation for this region so that only short roads are required. A very excellent system of roads serving the farms and mines of that vicinity is centered about Wasilla while a good, though less extensive system, centers about Anchorage.

An especial effort has been made within this district to furnish adequate roads, sled roads or trails to all points of development in order that traffic may be developed for The Alaska Railroad.

The most important road within the district is that now being constructed in cooperation with the National Park Service in Mt. McKinley National Park.

Shelter cabins are supported exclusively by the Territory. Of the remaining projects in this district, the through routes are supported by the Alaska Road Commission, less important projects by the Alaska Road Commission and the Territory jointly, and the purely local projects by the Territory exclusively.

FEDERAL PROJECTS.

SUMMARY OF ROADS

Sub-Project No.	Name of Route	Wagon Road	Sled Road	Trail	Total Miles
20B	Susitna-Rainy Pass	---	---	127	127
	Nancy-Susitna	---	---	25	25
	Archangel Extension	5 ¹ / ₂	---	---	5 ¹ / ₂
	Sherry Branch	---	---	1 ¹ / ₂	1 ¹ / ₂
35AR	Archangel Extension	1 ¹ / ₂	---	---	1 ¹ / ₂
35D	Willow Creek Extension	11	---	---	11
35E	Wasilla-Fishhook	16	---	---	16
35F	Wasilla-Knik	15	---	---	15
35H	Wasilla-Finger Lake-Palmer	12	---	---	12
35J	Wasilla-Matanuska	8	---	---	8
35K	Matanuska Trunk Road	8	---	---	8
35N	Houston-Willow Creek	---	30	---	30
35O	Fishhook-Goldmint	---	6	---	6
40D	McKinley Park Road	22	---	65	87
48	Iliamna Bay-Iliamna Lake	---	---	12	12
51	Talkeetna-Cache Creek	23 ¹ / ₂	18	---	41 ¹ / ₂
51A	Cache Creek Trail	---	---	11 ¹ / ₂	11 ¹ / ₂
51B	Peters Creek Trail	---	---	11 ¹ / ₂	11 ¹ / ₂
51C	Yentna Reconnaissance	---	---	---	---
51D	Mile 22-Spruce Creek	---	7 ¹ / ₂	---	7 ¹ / ₂
55	Kenai-Russian River	---	60	---	60
75	Anchorage-Eagle River	14 ¹ / ₂	---	---	14 ¹ / ₂
75B	Anchorage-Whitney	5	---	---	5
75D	Anchorage Warehouse	---	---	---	---
75E	MacDonald Branch	1 ¹ / ₂	---	---	1 ¹ / ₂
78	Cantwell-Valdez Creek	---	35	---	35
79	Seward Warehouse	---	---	---	---
90C	Shelter Cabins, 3rd Div.	---	---	---	---
93	Chulitna Trail	---	---	3	3
93A	Bull River Trail	---	---	4	4
93R	Indigu River Footbridge	---	---	---	---
94	Kodiak-Abberts	---	---	5	5
95	Kanatak-Becharof Lake	8 ³ / ₄	---	---	8 ³ / ₄
96	Chickaloon-King River	---	6 ¹ / ₂	---	6 ¹ / ₂
98	Homer Spit	3 ³ / ₄	---	---	3 ³ / ₄
98A	Nuka Bay Trail	---	---	1 ¹ / ₂	1 ¹ / ₂
	Totals	154 ³ / ₄	183	269	606 ³ / ₄

SUMMARY OF EXPENDITURES

Sub-Project Number	Federal	Territorial	Construction	Maintenance	Total
20B					
20H					
35A	\$ 2,967.42		\$ 1,200.00	\$ 1,767.42	\$ 5,934.84
35AA	1,119.32		1,119.32		2,238.64
35AB	104.29		104.30		208.59
35D	2,865.60			2,865.60	5,731.20
35E	4,284.58			4,284.58	8,569.16
35F	4,665.62		2,610.00	2,065.62	9,341.24
35H	220.30			220.30	440.60
35J	2,169.08	3,678.56	3,520.00	2,317.62	11,685.26
35K	391.50			391.50	783.00
35N	249.00			249.00	498.00
35O					
46D	52,539.40		52,490.24	49.16	105,078.80
48	6,495.00		5,770.00	725.00	12,990.00
51	10,229.12		2,000.00	8,229.12	20,458.24
51A	1,976.28		1,270.00	706.28	3,952.56
51B	4,427.93		3,807.92	620.00	8,855.85
51C	1,114.91		1,114.91		2,229.82
51D					
55	1,908.87	1,200.00	1,200.00	1,908.87	6,217.74
75	7,073.60	3,700.00(a)	4,973.60	5,800.00	21,547.20
75B	3,027.47	2,100.00	3,627.47	1,500.00	10,254.94
75D	427.98			427.98	855.96
75E	165.12	300.00	605.12	160.00	1,235.24
76	21.00			21.00	42.00
78	16.00			16.00	32.00
90C		308.25	308.25		616.50
93	116.29			116.29	232.58
93A	783.51	600.00	1,183.51	200.00	3,367.52
93B	4.00			4.00	8.00
94	14,254.29		13,754.29	500.00	28,508.58
95	50.75			50.75	101.50
96	412.66			412.66	825.32
98	3,482.57	3,900.00	7,382.57		14,765.14
98A	1,302.66	3,600.00	4,302.66		8,605.32
Totals	\$129,147.02	\$18,786.31	\$112,344.98	\$35,689.75	\$197,368.06

(a)—Includes \$500 reimbursement from The Alaska Railroad on account of Moose Creek road work in 1925.

DESCRIPTION

For detailed description see Part II, Annual Report for 1924. The following changes and additions should be noted:

35AA—Leaving the Archangel Extension road, route 35A, at Mile 5 this trail extends up Archangel Creek one-half mile to a point beyond the Fern mine.

35AB—Leaving the Archangel Extension road, route 35A, at Mile 4 this road crosses Fairangel Creek and extends to the workings of the Talkeetna Mining Co.

35J—Length of road 3 miles instead of 10.

46D—This road extended to a total length of 22 miles.

48—This entire route is trail, 12 miles in length.

51—The wagon road has been extended to a length of 20½ miles. The sled road was partially relocated during the past season and is now 18 miles long.

51A—This is an old trail connecting the Cache Creek road, Route 51, with the placer camps on Cache Creek. It practically

parallels the winter sled road but keeps on high ground and is used in summer for pack horses and pedestrians. Double enders pass over it in late spring and early fall.

51B—This is a summer pack trail extending from the end of the Cache Creek wagon road, Route 51, up the left limit of Peters Creek and serving miners and prospectors on the upper part of that creek and on the Takasitna River. The trail is suitable also for double enders or dog teams in winter.

51D—This is a portion of the old Cache Creek sled road, replaced by relocation this year. It serves an area along Spruce Creek.

75—Length of route 14½ miles.

75B—Length of route 5 miles.

75E—This road branches from the Anchorage-Eagle River road at Mile 2¼, extending 1¼ miles and serving several farms.

93A—Length of route 4 miles.

93B—This footbridge spans Indian River one mile east of Mile 24 on The Alaska Railroad. It is for the benefit of prospectors in the district to the east. It is suitable for use by dog teams, pack animals and double enders.

95—This project comprises 8¾ miles wagon road.

98—This is a project begun last year to consist of 16½ miles of wagon road when completed. It extends up Homer Spit from Kachemak Bay serving a large area of farm lands.

98A—This trail leads from tidewater at Nuka Bay, situated 6½ miles southwest of Seward, up the left limit of Nuka River to the Alaska Hills Mining Co. serving this property and other lode prospects beyond. It is suitable for pack horses or double enders.

OPERATIONS DURING YEAR

The important operations, other than routine maintenance, may be summarized by routes as follows:

35AA—A trail 9 feet wide was constructed for a distance of one-half mile. The route is passable for light wagon loads in dry weather only.

35AB—One 16-foot span bridge of native timber was constructed.

35D—One mile road surfaced and 2 metal culverts installed.

35E—1.4 miles road surfaced and 4 metal culverts installed, 137 linear feet cribbing 4 feet high constructed to hold the road through the Little Susitna Canyon.

35F—Three miles road graded to standard width, 2½ miles grubbed 30 feet wide, 2 metal and 2 log culverts installed and 50 linear feet of corduroy placed.

35J—2½ miles of this road cleared, grubbed and graded to full 24 feet wide.

46D—The McKinley Park Scenic Road was extended 12 miles. This project was initiated as a cooperative project between the Alaska Road Commission and the National Park Service in 1922. The Alaska Road Commission had been utilizing its funds in reconnaissance, surveys, location, purchase and freighting of supplies, accumulation of equipment, etc., so that upon National Park funds becoming available, work could be aggressively pushed ahead.

The National Park section of the project was adopted by Congress in the Act of April 9, 1924, providing for a 3-year road program for the National Parks. It provides for the construction of 33 miles of road and 70 miles of trail within the Park at a first cost of \$272,700. The first National Park funds to become available were appropriated by the Act of March 3, 1925, for the support of the activities of the Interior Department. \$80,000 of Park Road funds were allotted to this project for the fiscal year 1925, \$50,000 for the fiscal year 1926, and \$16,000 for the fiscal year 1927.

This season's work included the clearing, grubbing and grading of 12 miles of road to the Sanctuary River, Mile 22. Two 60-foot pony truss spans were erected over the Savage and Sanctuary Rivers. 729 linear feet of trestle span bridges were constructed. All the above bridges were of fir. 7,613 cubic yards of gravel were placed for surfacing 3.2 miles of road and 157 metal culverts were installed.

Office and warehouse buildings were repainted, log cabin and storage tents were erected at Sanctuary River, and telephone line was extended to camp at Mile 20.

The total expenditures to date are classified as follows:

Office Building	\$ 1,777.86
Warehouse	3,441.86
Cabins (Savage and Sanctuary Rivers).....	2,426.38
Trail Tents	732.50
Trail Construction	1,998.90
Reconnaissance	500.00
Road Construction	128,310.62
Road Maintenance	4,509.16
Expendable Supplies on Hand	3,521.23
Total	\$147,318.21
Fiscal Year 1922	\$ 500.00
1923	2,528.90
1924	4,861.74
1925	86,788.17
1926	52,539.40
Total	\$147,318.21
National Park Service	\$130,020.00
Territory of Alaska	732.50
Contributed	700.25
Alaska Road Commission	15,565.46
Total	\$147,318.21

48—Heavy sidehill grading was completed over one mile of this route consisting of 1,080 cubic yards of solid rock and 1,536 cubic yards loose rock excavation. Timber for bridges was landed at Uiamna Bay.

51—Six miles of new sled road (relocation) were built down Windy Creek shortening the route 1½ miles. 16 native timber bridges were constructed totaling 271 linear feet.

51A—The rehabilitation of this trail was completed. 4¾ miles were cleared 8 feet wide, 0.2 mile of sidehill graded 7 feet wide, 47 linear feet of native timber bridges and 38 timber culverts constructed. This trail suitable for pack horses and wide enough for use by double enders.

51B—This trail was completed to a total length of 14¾ miles. The past season's work included heavy sidehill grading over 2¼ miles, partly through solid rock. 127 linear feet of native timber bridges and 24 timber culverts were constructed. This trail is suitable for pack horses in summer and for double enders or dog sleds in winter.

51C—A reconnaissance was made to determine a route into the placer mining operations in the vicinity of Mills and Twin Creeks.

55—A relocation taking this route off seven lakes was constructed. This included 3¾ miles of grading 10 feet wide.

75—3 miles of this road were widened from 4 to 12 feet, making a total width of 32 feet on the flats and 18 feet on sidehill grades. 2,610 cubic yards of gravel were placed as surfacing on 3.2 miles. One metal culvert was installed.

75B—Road was widened to standard 32 ft. width for 0.8 mile. 6 metal culverts were installed.

75E—Road was grubbed and graded for 0.4 mile. 20 linear feet of corduroy were laid and 3 metal culverts installed.

90C—Shelter cabins 3rd Division.

One cabin was built on Cold Bay at the southwest end of the Alaska Peninsula in the vicinity of Belkofsky. This cabin is used by travel over the portage between the North Pacific Ocean and Bering Sea. Cabin is 12'x12' of shiplap and tar paper, with stove installed. Cost \$308.25.

93A—118 linear feet of native timber trestle were constructed and 310 cubic yards of solid rock excavated.

94—1.6 miles heavy sidehill grading, average width 8 feet, were accomplished. 60% of this was through solid rock. 131 linear feet of sawed timber trestle, average height 18 feet were constructed and 19 metal culverts installed.

98—3¾ miles of road were cleared and 2¾ miles grubbed and graded 20 feet wide. 37 native timber culverts were installed and 90 linear feet of trestle bridges constructed.

98A—This trail was cleared, grubbed and graded 1¾ miles for an average width of 7 feet. This grading included the removal of 1,507 cubic yards of solid rock. 200 linear feet of corduroy were laid and 5 timber culverts constructed.

PRESENT CONDITION AND NEEDS

The local roads centering about Anchorage and Wasilla are in fair condition for the traffic requirements. In places they should be widened and in many places they require gravel surfacing to make them readily passable in wet weather. The completion of the road from Kodiak to Abberts Ranch and Mill Bay is very desirable as is also the construction of 16½ miles of road at Homer Spit to serve the farm community at that locality. The road into Mt McKinley National Park should be extended and should help to make the park quite an attractive stopping place for tourists who are coming to Alaska in ever increasing numbers.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	154¾	\$118,218.05	\$ 763.93
Sled Road	169¾	8,021.65	47.44
Trail	117	19,822.99	169.43
Totals	441¾	\$146,062.69	\$ 331.02

TERRITORIAL PROJECTS.

Territorial Road Commission, Third Division.

Anton Eide, Chairman and Secretary.

Archie Lingo, Member.

SUMMARY OF ROADS

Sub-Project No.	Name of Route	Wagon Road	Total Miles
10B	Seward-Nash	2½	2½
35B	Palmer-Fishhook	8½	8½
35C	Palmer-Matanuska River	1½	1½
35G	Palmer-Springer	3	3
35I	Moose-Palmer	6	6
35L	Palmer-Matanuska	6½	6½
35Q	Edlund Road	½	½
35E	Bogard Road	3¼	3¼
75A	Anchorage-Lake Spenard	4	4
75C	Chester Creek Boat Landing	1	1
Totals		36¾	36¾

SUMMARY OF EXPENDITURES

Sub-Project No.	Territorial Divisional Funds		Total
	Construction	Maintenance	
10B		\$ 300.00	\$ 300.00
35B			
35C		411.42	411.42
35G			
35I		200.00	200.00
35L		532.86	532.86
35Q			
35E	2,888.58		2,888.58
75A	3,770.00	1,200.00	4,970.00
75C			
Totals	\$ 6,658.58	\$ 3,194.28	\$ 9,852.86

DESCRIPTION

For detailed description see Part II, Annual Report for 1924. The following additions and changes should be noted:

35B—Name changed to Palmer-Fishhook since this route connects the settlement of Palmer with the Wasilla-Fishhook road 11½ miles from Wasilla, serving a number of farms enroute.

35R—This road turns west toward a group of farms from Mile 6 of the Matanuska Trunk Road. It is the beginning of a new road 8 miles in length which will serve 13 farms now more or less isolated.

OPERATIONS DURING YEAR

The important operations, other than routine maintenance, are summarized by routes as follows:

35R—3.2 miles were cleared and 2.4 grubbed and graded 20 feet wide. 40 linear feet of native timber trestle bridges were constructed and one timber culvert installed.

75A—4,071 cubic yards of gravel were placed as surfacing on 4 miles of road. The cut on Chester Creek Hill was widened and 2 metal culverts installed. This route is now surfaced throughout and is in excellent condition.

PRESENT CONDITION AND NEEDS

Most of the roads in this group are earth surfaced and serve farm areas. They are adequate for the purpose though generally narrow for automobile traffic and soft in wet weather. The Bogard Road should be completed.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	24¼	\$ 9,852.86	\$ 394.34

KUSKOKWIM DISTRICT.

Ross J. Kinney, Supt., Tokotna, July 1, 1925 to Feb. 1, 1926

Carl Lottsfeldt, Supt., Feb. 1 to June 30, 1926

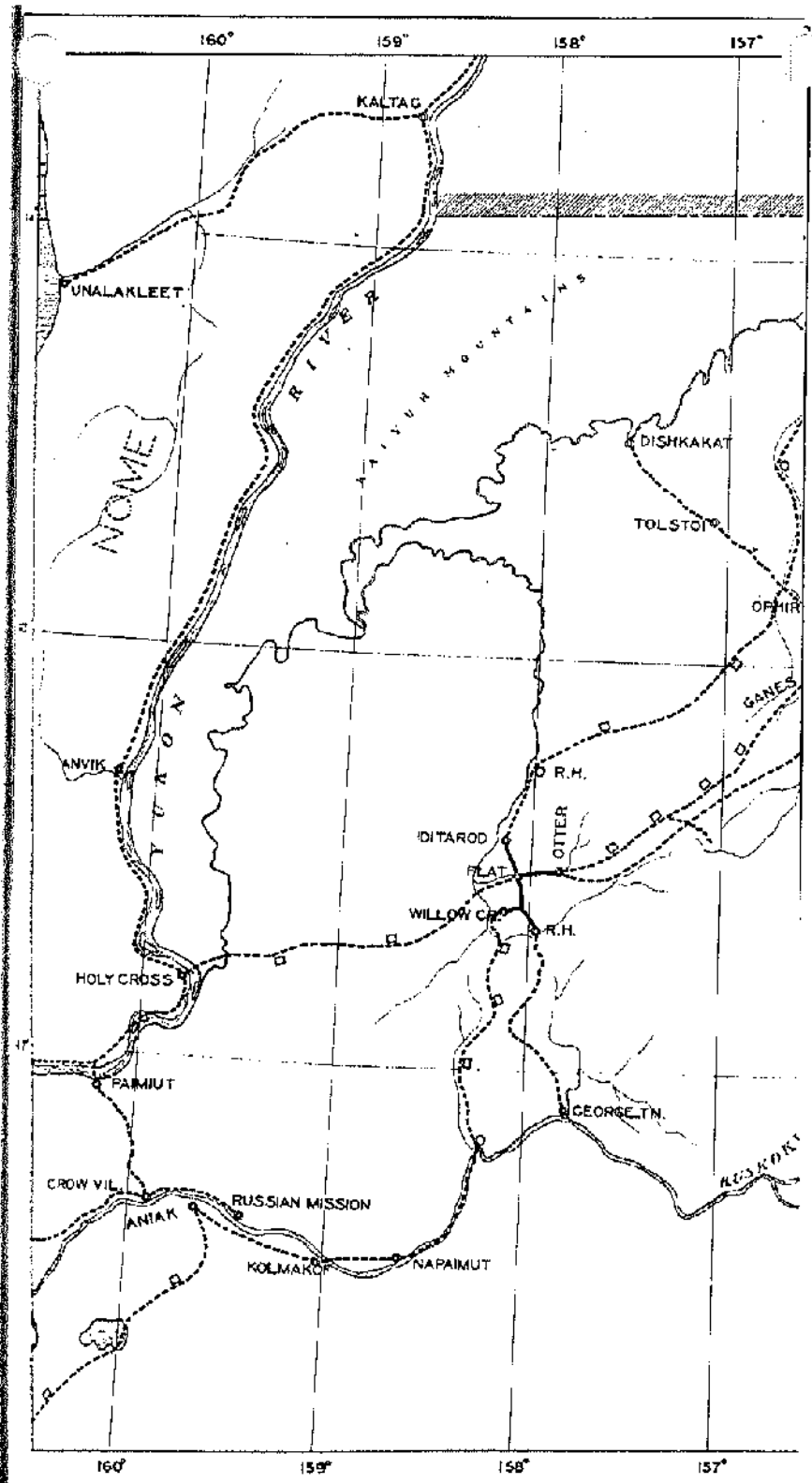
This district embraces the upper valley of the Kuskokwim River and extends west as far as the Yukon River, thus including the valleys of the Iditarod and Innoko Rivers. The chief mining operations are centered about Iditarod, Tokotna, and Ophir.

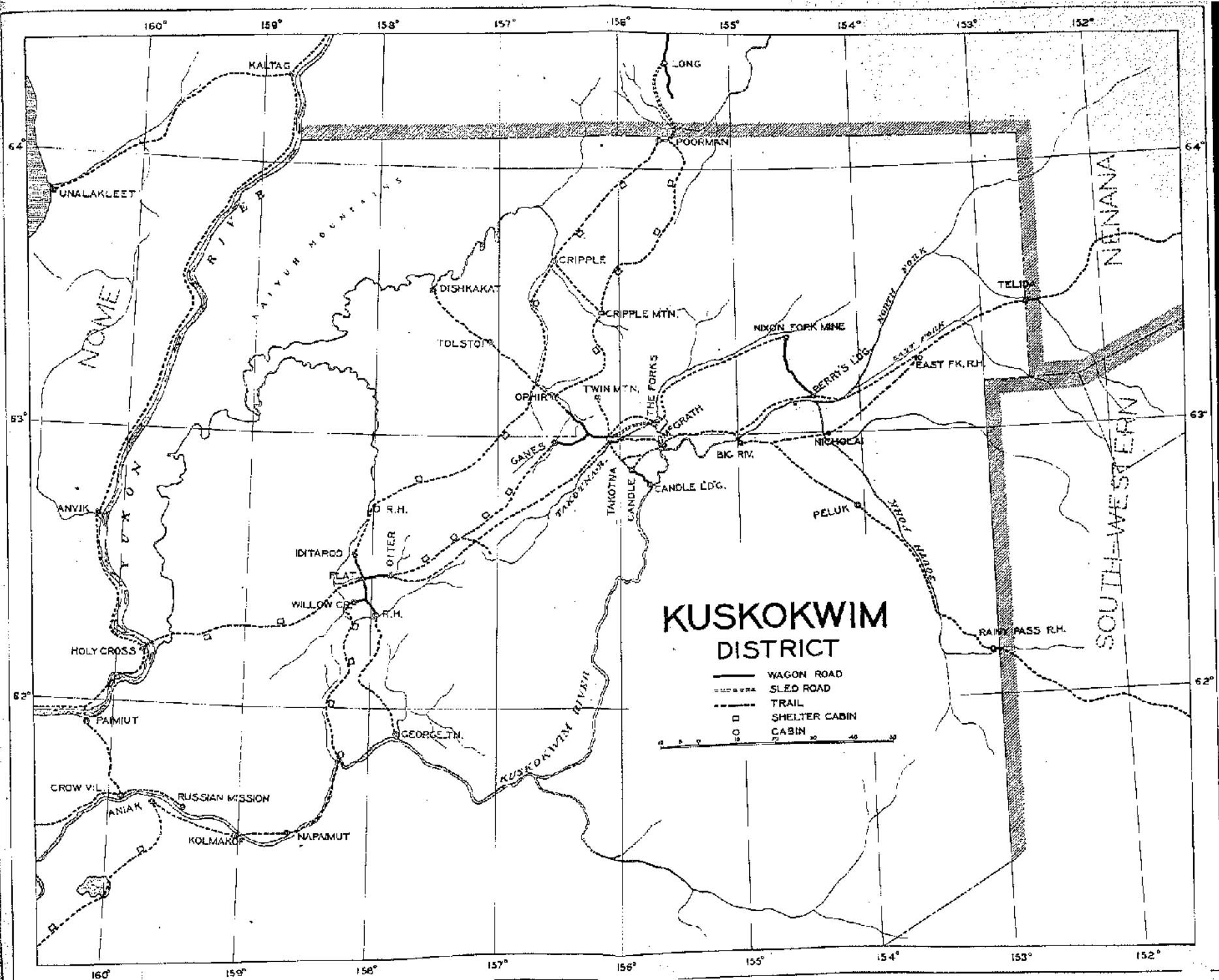
This district comprises one of the most inaccessible parts of Alaska. Freight for Tokotna and vicinity is sent by ship from Seattle to Bethel and thence by river boat up the Kuskokwim River. Freight for Iditarod and vicinity is sent by ship from Seattle to Seward, thence by rail to Nenana and by river boats, owned and operated by the railroad, to Holy Cross. There it is transferred to smaller boats and sent up the Innoko and Iditarod Rivers. Summer mail is sent by this route. During the summer people go in by the last described route, or leave the government boat at Ruby and walk overland via Long and Poorman. During the winter mail and people enter and leave this district over the winter trail via McGrath, Telida, Diamond, Knights, and Kobi or Nenana. The limited activities within the district together with its remoteness and the great expense of road construction have prevented the construction of any through wagon or automobile routes.

Shelter cabins, aviation fields, and the Ganes Creek road are supported exclusively by the Territory. The remaining projects in this district were supported exclusively by the Alaska Road Commission.

SUMMARY OF ROADS

Sub-Project No.	Name of Route	Wagon Road	Sled Road	Trail	Total Miles
20C	Rainy Pass-Big River	.....	.....	110	110
20DA	Tokotna-Ophir	.....	19	.....	19
20DB	Ophir-Dishkaket	.....	.....	55	55
32A	Tokotna-Flat	.....	.....	95	95
32AA	Tokotna-Flat (via Moore Creek)	.....	.....	93	93
32AB	Flat-Moore Creek (Summer)	.....	.....	7	7
32AC	Candle Creek-Tokotna	.....	.....	12	12
32B	Iditarod-Flat	8	.....	.....	8
32C	Ophir-Iditarod	.....	.....	79	79
32D	Flat-Crooked Creek (Winter)	.....	.....	62	62
32DD	Flat-Georgetown (Summer)	.....	.....	65	65
32E	Tokotna Aviation Field	.....	.....	.....	.....
32F	Tokotna Depot	.....	.....	.....	.....
33C	Flat City-Flat Creek	5	.....	.....	5
33D	Head Flat Creek-Willow Creek	4 1/2	.....	.....	4 1/2
33E	Willow Creek-Chicken Creek	3	.....	.....	3
33F	Flat City-Otter Discovery	3	.....	.....	3
33G	Candle Landing-Candle Creek	9	.....	.....	9
33H	Flat Aviation Field	.....	.....	.....	.....
34A	Flat-Holy Cross-Anvik	.....	.....	80	80
34B	Iditarod-Shageluk-Anvik	.....	.....	75	75





NENANA

SOUTH-WESTERN

NOME

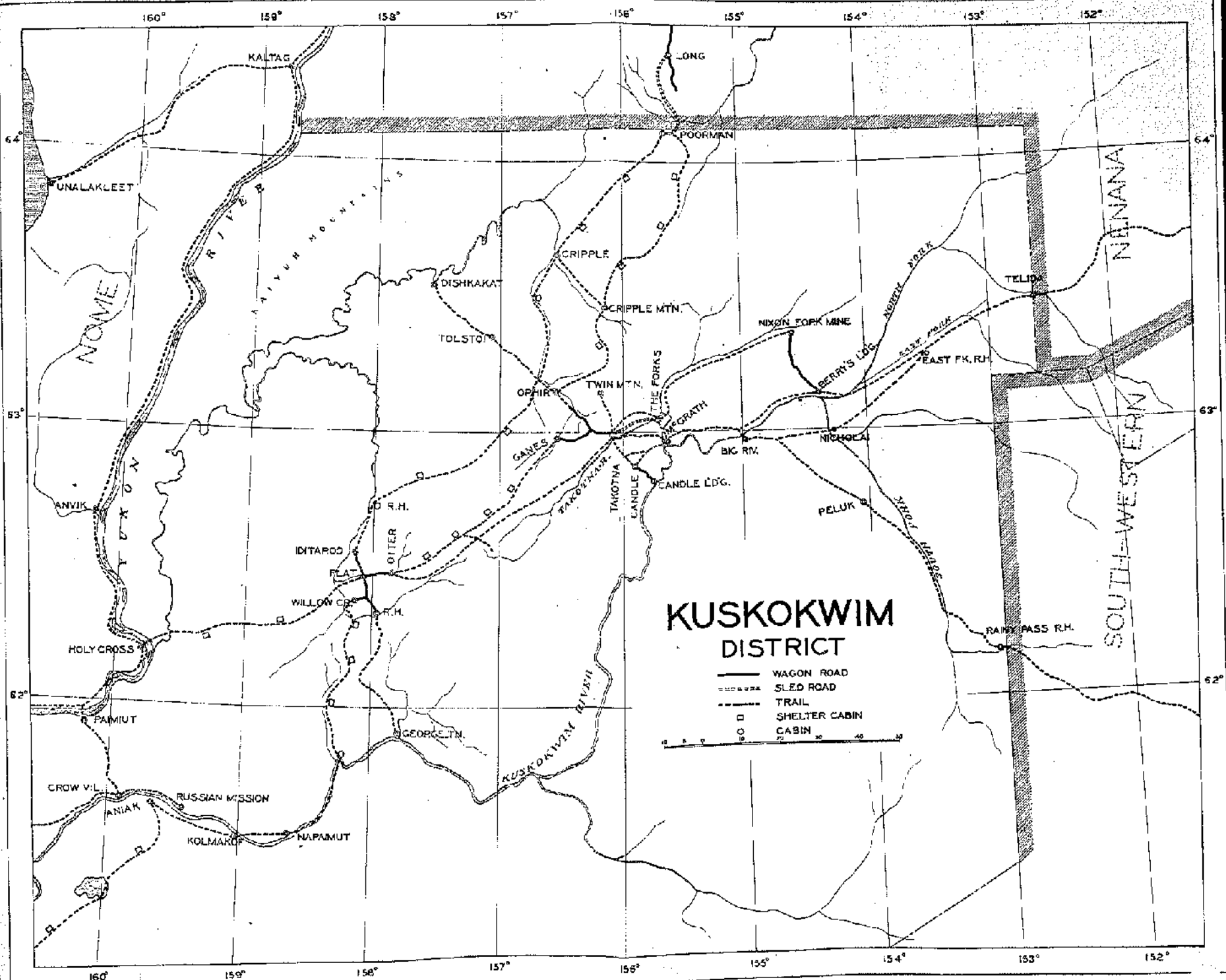
KUSKOKWIM RIVER

YUKON RIVER

ALYAKH MOUNTAINS

KUSKOKWIM DISTRICT

- WAGON ROAD
- - - SLED ROAD
- TRAIL
- SHELTER CABIN
- CABIN



35B	Poorman-Cripple	---	---	47	47
35C	Ophir-Cripple (Winter)	---	---	47	47
35D	Ophir-Tokotna	18½	---	---	18½
35F	Poorman-Ophir	---	---	126	126
35G	Tokotna-Tokotna Landing	1½	---	---	1½
38H	Ganes Creek Road	13	---	---	13
64A	Cripple-Cripple Mt. (Summer)	---	---	12	12
64AA	Cripple-Cripple Mt. (Winter)	---	14	---	14
80A	McGrath-Tokotna (Summer)	---	---	5	5
80AA	McGrath-Tokotna (Winter)	---	---	18	18
80B	McGrath-Telida	---	---	94	94
80C	McGrath-Candle Creek	---	---	11	11
80D	Nixon Fork-Nixon Mine	---	---	37	37
80E	Tokotna-Twin Peaks	---	---	12	12
80F	Medfra-Nixon Mine	12	---	---	12
80G	Nixon Fork-Tokotna (Summer)	---	---	15½	15½
80GG	Nixon Fork-Tokotna (Winter)	---	14½	---	14½
80D	Shelter Cabins	---	---	---	---
Totals		77½	47½	1156½	1281½

SUMMARY OF EXPENDITURES

Sub-Project Number	Federal	Territorial	Construction	Maintenance	Total
29C	-----	-----	-----	-----	-----
29DA	\$ 396.43	-----	-----	396.43	396.43
29DB	-----	-----	-----	-----	-----
32A	463.33	-----	-----	463.33	463.33
32AA	-----	-----	-----	-----	-----
32AB	-----	-----	-----	-----	-----
32AC	74.89	-----	-----	74.89	74.89
32B	6,258.20	-----	\$ 3,368.20	2,400.00	6,258.20
32C	225.88	-----	-----	225.88	225.88
32D	1,607.60	-----	500.00	1,107.60	1,607.60
32DD	-----	-----	-----	-----	-----
33E	-----	\$ 1,691.19	1,691.19	-----	1,691.19
32F	1,950.26	-----	1,650.26	300.00	1,950.26
33C	623.80	-----	-----	623.80	623.80
33D	730.95	-----	-----	730.95	730.95
33E	-----	-----	-----	-----	-----
33F	480.60	-----	-----	480.60	480.60
33G	-----	-----	-----	-----	-----
35H	-----	(a) 1,200.00	1,200.00	-----	1,200.00
34A	-----	-----	-----	-----	-----
34B	500.00	-----	500.00	-----	500.00
38E	-----	-----	-----	-----	-----
38C	475.79	-----	-----	475.79	475.79
38D	28,558.16	-----	23,008.16	5,550.00	28,558.16
38F	702.59	-----	-----	702.59	702.59
38G	-----	-----	-----	-----	-----
38H	-----	5,158.85	2,158.85	3,000.00	5,158.85
64A	-----	-----	-----	-----	-----
64AA	611.05	-----	611.05	-----	611.05
80A	60.20	-----	-----	60.20	60.20
80AA	831.42	-----	-----	831.42	831.42
80B	408.90	-----	-----	408.90	408.90
80C	-----	-----	-----	-----	-----
80D	-----	-----	-----	-----	-----
80E	113.16	-----	113.16	-----	113.16
80F	-----	-----	-----	-----	-----
80G	160.56	-----	-----	160.56	160.56
80GG	108.16	-----	-----	108.16	108.16
80D	-----	1,045.52	833.02	212.50	1,045.52
Totals.....\$45,341.93		\$ 9,095.56	\$36,123.89	\$18,313.60	\$54,437.49

(a)—\$600 in money and labor contributed by the citizens of Flat, not included in expenditures.

DESCRIPTION

For detailed description see Part II, Annual Report for 1924. The following changes and additions should be noted:

32E—This airplane landing field is located on a hill just back of the town of Tokotna. It is 500 feet wide by 1,000 feet long.

33H—This landing field is situated 1½ miles northeast of the town of Flat. The field is 400 feet wide and 1,400 feet long and is in first class condition.

34B—This is a dog sled trail connecting Iditarod with Anvik, on the Yukon River, by way of Shageluk. It was constructed the past season.

38D—This road is still under construction. It is now completed 18½ miles from Tokotna.

38H—This project includes the former routes 38H and 38I. Total length 13 miles wagon road.

64AA—This sled road branches from the Cripple-Poorman winter trail ¾ miles from Cripple and extends 14 miles up the Colorado Creek Valley to the mining operation around Cripple Mountain.

OPERATIONS DURING YEAR

The important operations, other than routine maintenance, may be summarized by routes as follows:

32E—One mile of this road was surfaced. A branch road 300 feet long leading to the government radio station was repaired and surfaced.

32D—A 90-foot suspension bridge suitable for pack horses and dog sleds was constructed over Bonanza Creek.

32E—This landing field, 500 feet by 1,000 feet was cleared, grubbed and the moss removed. It was then plowed, harrowed and rolled.

33H—This landing field, 400 feet by 1,400 feet was cleared, grubbed and moss removed. It was then plowed, harrowed and rolled. The citizens of Flat and vicinity contributed \$600 in labor and money for this work.

34B—The trail from Iditarod to Shageluk was cleared through timber and staked across open places. This trail is suitable for dog sleds.

38D—The road was advanced ¾ miles during the season. The work included 3 miles graded, 2,520 linear feet pole corduroy laid and covered, two 20-foot span bridges and 36 culverts constructed, and 1,200 cubic yards gravel placed as surfacing on 2½ miles road.

38H—Two miles of road were graded and ½ mile surfaced.

64AA—This sled road was cleared where necessary. It is suitable for use by horse drawn bob sleds.

90D—Shelter cabins, 4th Division.

Route	Location	Work Done	Cost
20DA	Yankee Creek	Building barn and repairs to cabin	\$ 486.52
32AA	Fritz Roadhouse	New stove and pipe installed	25.00
32C	Brown Creek	New stove pipe installed	5.00
32C	First Chance Cabin	New stove pipe installed	5.00
32D	Donkan Creek	Corrugated iron roof placed	77.50
32D	Bonanza Creek	12x14 cabin built, stove and bunks installed	346.50
33E	Silver Creek	Labor placing corrugated iron roof	32.50
80D	Crooked Creek Hill	Roofing paper placed on roof	67.50
Total			\$1,045.52

PRESENT CONDITION AND NEEDS

The transportation needs of this district, in view of the limited activity, are reasonably well served by the Kuskokwim, Yukon, Iditarod and Innoko Rivers, the extensive system of summer and winter trails, and the few short roads. Summer mail and passenger service would be greatly improved by the extension of the Ruby-Long road through Poorman to Ophir. The Tokotna-Ophir road will be completed in the season of 1926.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	52	\$41,810.56	\$ 804.05
Sled Road	47½	1,115.81	23.49
Trail	639¾	5,624.32	8.79
Totals	739	\$48,550.69	\$ 65.70

NOME DISTRICT.

E. F. Bauer, Acting Supt., July 1, 1925 to Feb. 1, 1926

Assistant Supt., Feb. 1 to June 30, 1925

Ross J. Kinney, Supt., Feb. 1 to June 30, 1925

This district embraces that portion of Alaska lying west of the 158th Meridian and north of the Yukon River.

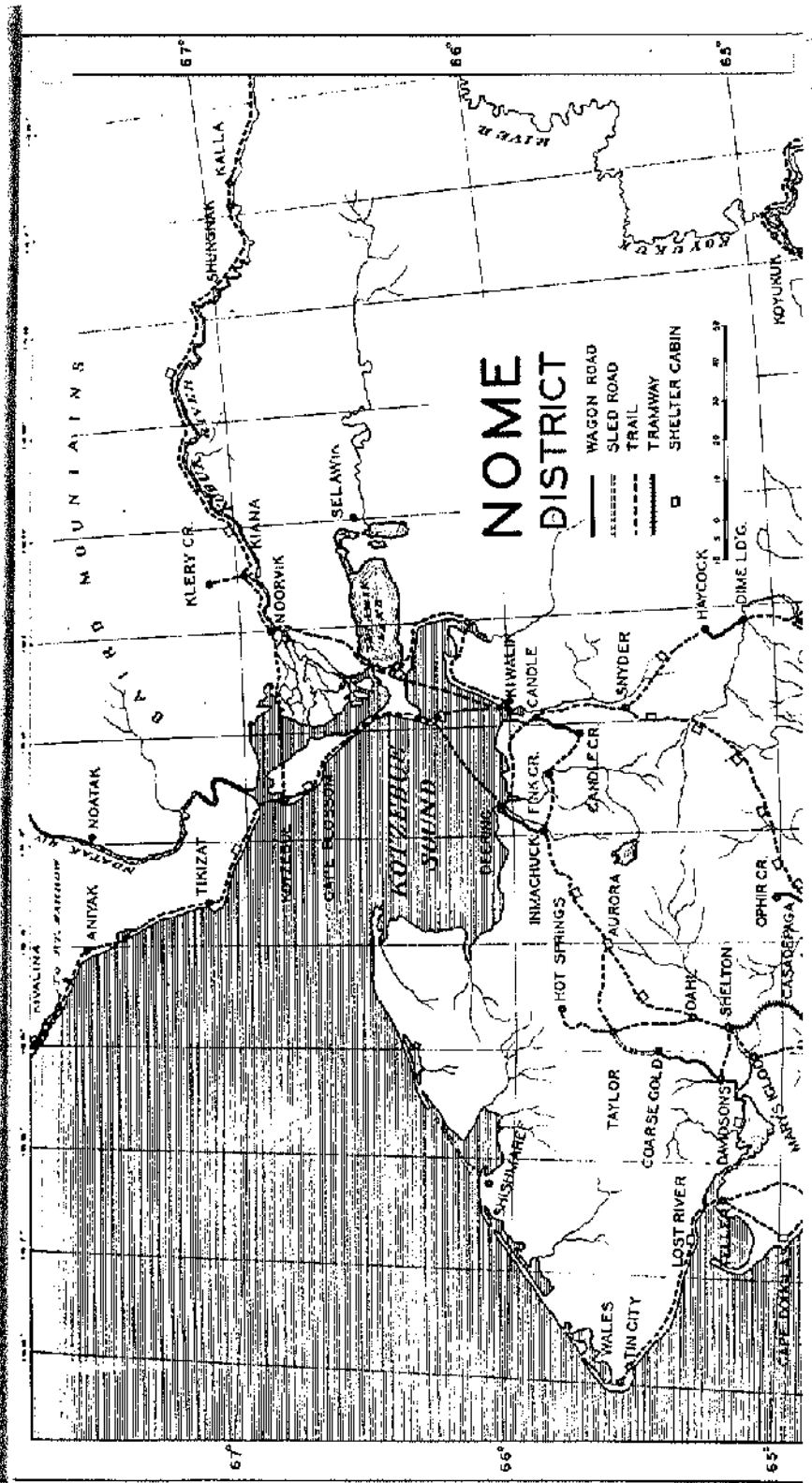
On account of the length and severity of the winter, the isolated location, and the lack of timber for protection and fuel, a considerable portion of the personnel of this District spend the winter outside, leaving on the last boat sailing from Nome the latter part of October and returning on the first boat in the Spring which arrives at Nome from the middle to the latter part of June. The bulk of the freight is landed at the nearest port and moved to its destination either up streams in horse drawn scows in summer or over sled roads in winter.

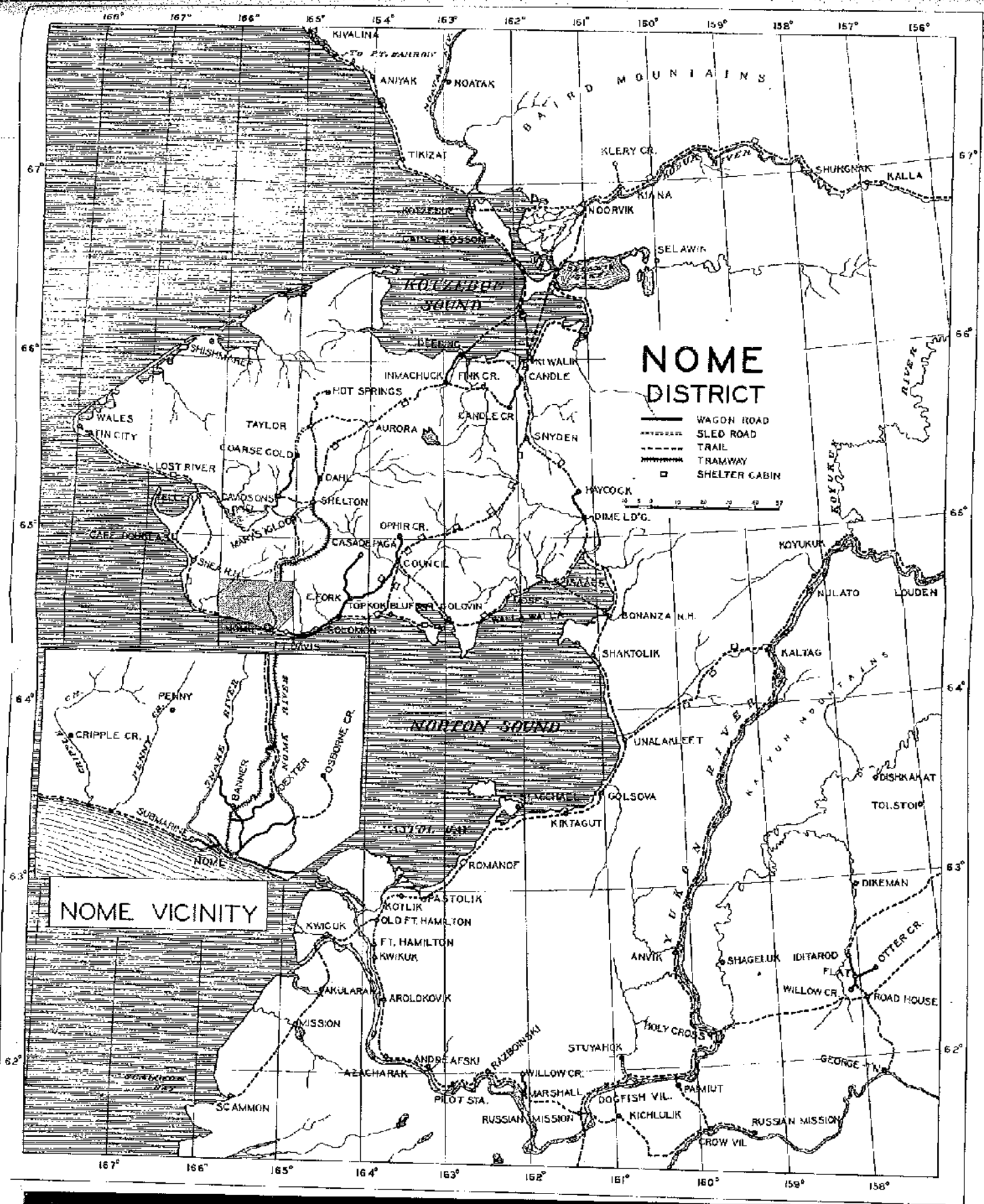
The most important projects are the system of local roads serving the extensive mining activities about Nome, the Nome-Shelton Tram and connecting trail extending on through Dahl to Deering and Candle, the road from Nome to Council and Casa de Paga, and the system of winter trails extending throughout the entire District.

Shelter cabins and aviation fields are supported exclusively by the Territory—the Seward Peninsula Railroad exclusively by the Alaska Road Commission. All other projects in this district are supported jointly by the Territory and the Alaska Road Commission.

SUMMARY OF ROADS

Sub-Project No.	Name of Route	Wagon Road	Sted Road	Trail	Total Miles
8	Nome-Council	57	...	25	82
8D	Council-Ophir Creek	12	...	...	12
3H	Casa de Paga Road	20	...	...	20
3J	Shovel Creek	5	...	...	5
13A	Nome-Bessie	3 1/2	...	...	3 1/2
13B	Bessie-Banner	3 1/2	...	...	3 1/2
13C	Bessie-Little Creek	2	...	...	2
13F	Nome-Osborne	5 1/2	...	...	5 1/2
13K	Bessie-Buster	5	...	...	5
18	Kullag-Nome	...	...	280	280
18A	Bonanza-Kotzebue	...	...	240	240
18B	Golovin-Council	...	...	35	35
21	Unalakleet-St. Michael	...	...	60	60
25C	Nome-Wireless	1 1/2	...	...	1 1/2
25D	Mouth of Center Creek	2	...	...	2
25E	Submarine Phystroak	3	...	...	3
25F	Anvil-Glacier	3	...	...	3
26C	Snake River Extension	3	...	...	3
29K	Nome City Wharf	...	...	...	...
29L	Nome Aviation Field	...	...	...	...
25M	Telephone Lines	...	...	...	...
26	Candle-Candle Creek	6	...	...	6
26A	Kugruk River Approach	1 1/2	...	...	1 1/2
26B	Bear Creek Trail	...	...	45	45
27	Deering-Inmachuk	25	...	...	25
28	Shelton-Candle Trail	...	...	152	152
28A	Nome-Taylor	...	...	135	135
37	Topkak-Candle Winter Trail	...	...	154	154
41	Kiana-Cleary Creek	...	...	12	12
41A	Kotzebue-Shungnak	...	...	200	200
41B	Kotzebue-Point Barrow	...	...	500	500
42	St. Michael-Kotlik Trail	...	...	70	70
48	Davidson's Landing-Taylor	24	16	...	40
62	Dime Creek	9	...	...	9
67	Nome-Teller	...	...	80	80
67A	Teller-Cape Prince of Wales	...	...	142	142
67B	Teller-Bluestone	...	...	18	18
67C	Teller-Mary's Igloo	...	...	40	40
68	Flagging Trails	...	...	712	712
73	Marshall Road	4 1/2	...	...	4 1/2
73A	Kotlik-Marshall	...	...	190	190
73B	Stuyahok	...	11	...	11
73C	Scammon Bay Trail	...	...	80	80
83A	Seward Peninsula Railroad	87	...	...	87
90B	Shelter Cabins	...	...	...	...
Totals		280 1/2	27	3179	3486 1/2





NOME DISTRICT

- WAGON ROAD
- SLED ROAD
- TRAIL
- TRAMWAY
- SHELTER CABIN

NOME VICINITY

SUMMARY OF EXPENDITURES.

Sub-Project Number	Federal	Territorial	Construction	Maintenance	Total
8	\$ 7,632.43	\$16,970.00(a)	\$ 8,402.43	\$16,200.00	\$24,602.43
8D					
8H	227.52	500.00		727.52	727.52
8J					
13A	2,331.90	3,500.00	4,931.90	1,400.00	6,331.90
13B	288.91	450.00		738.91	738.91
13C	641.82	900.00	500.00	1,041.82	1,541.82
13F	51.42	90.00		141.42	141.42
13K	1,321.96	2,800.00	3,121.95	1,500.00	4,621.95
18	1,169.88	1,800.00	2,090.00	969.88	2,969.88
18A	84.78	150.00		234.78	234.78
18B					
21	62.28	100.00		162.28	162.28
25C					
25D	42.15	80.00		122.15	122.15
25E	119.39	240.00		359.39	359.39
25F	1,189.41	1,200.00	1,489.41	900.00	2,389.41
25G	463.53	500.00		963.53	963.53
25K					
25L		2,500.00	2,500.00		2,500.00
25M		2,149.10		2,149.10	2,149.10
26	620.69	500.00		1,020.69	1,020.69
26A					
26B					
27	2,495.06	3,090.00	1,500.00	3,985.06	5,495.06
28					
28A	155.68	300.00		455.68	455.68
27					
41					
41A					
41B	1,041.65	859.28	1,900.84		1,900.84
42					
49	1,018.84	1,690.60		2,616.84	2,616.84
62	1.50	1.00		2.50	2.50
67	297.90	400.00		697.90	697.90
67A					
67B					
67C					
69	1,443.40	2,600.00		4,043.40	4,043.40
73					
73A					
73B					
73C	490.00	700.00	1,100.00		1,100.00
89A	25,049.25		7,549.25	17,490.00	25,049.25
90R		2,673.08	1,754.55	917.53	2,672.08
Totals.....	\$49,049.25	\$46,561.46(b)	\$36,850.33	\$58,760.33	\$96,610.71

(a)—Includes \$5,740.28 miscellaneous refunds and reimbursements on account of Improvement of Nome Harbor.

(b)—\$2,500.00 additional was appropriated for Nome Harbor and was deposited to the credit of River and Harbor funds.

DESCRIPTION

For detailed description see Part II, Annual Report for 1924. The following additions should be noted:

25K—This dock, located inside the jetties of Nome Harbor, was built during the summer of 1924 with funds contributed by the town of Nome.

25L—This airplane landing field is situated 2 miles north of Nome on the Nome-Bessie road. It is built in two perpendicular runways, each 200 feet wide and 1,400 feet long.

25M—This project includes telephone lines from Nome to various points on Seward Peninsula.

73C—This trail leaves the Kotlik-Marshall trail at Old Fort Hamilton and extends across the Delta of the Yukon River via Akularak Mission and Black River to Scammon Bay.

OPERATIONS DURING THE YEAR

The important operations other than routine maintenance, may be summarized as follows:

8—Three-fourths of a mile of new road (relocation) was built north of the Bonanza River crossing, made necessary by the encroachment of Solomon River.

8H—One mile of corduroy was laid over the Ruby divide. Old railroad ties delivered the previous winter were used.

13A—Additional surfacing material was placed over the entire route.

18—Cable suspension bridges suitable for the use of foot passengers or dog sleds were erected as follows: 10 Mile crossing of Kaltag River, 100-foot span; Old Woman River, 250-foot span; South River, 200-foot span and Soroski River, 200-foot span.

25L—The north and south runway was completed to a width of 150 feet and the east and west runway to a width of 100 feet. The field is in excellent condition for landing though both runways will be widened to full 200 feet.

25M—The telephone lines from Nome to Candle, Candle to Golovin, Nome to Kougarok and from Candle to Deering and Keewalik were repaired and maintained. This work was performed under the authority of the Act of April 30, 1925 of the Territorial Legislature, which act provided funds for the above purpose.

68—368½ miles temporary trails flagged.

73C—Permanent stakes and beacons at river crossings were placed over the entire route. Fir stakes 2"x4", 8 feet high were placed between Black River and Scammon Bay, 30 miles, the remainder being staked with native timber available.

89A—The track from Nome to the dredge operations at 5 Mile was raised from 6 inches to 2 feet, ballasted and realigned. The track was moved back from the river at 30 Mile and realigned. Temporary realigning and blocking up were carried out from Mile 60 to 83 to provide for light traffic.

90B—Shelter cabins 2nd Division.

Route	Location	Work Done	Cost
8	East Fork Solomon	Stove	\$ 19.51
8	Fox River	Wood delivery	50.00
18	Tupkuk	Repairs, etc.	62.40
18	Moses	Repairs, Cabin and dog barn	117.60
18	Cheokuk	Repairs	35.00
18	Whaleback	Cabin and stove	350.00
18	Walla Walla	Cabin and dog barn reconstructed, stove, etc.	217.50
18	Kaltag Mile 22	Cabin and stove	350.00
18A	Quartz Cr.	Stove, etc.	22.45
18A	Callahans	Repairs, stove and wood	87.80
18A	Choris Pen.	Materials	5.35
18A	Arctic Circle	Stove	15.00
28A	Nome River	Outfit car	112.62
41A	Hunt River	Cabin built	298.00
41B	Aukluk	Repairs	103.80
41B	Kivakina	General Repairs	100.00
41E	Tutakuk	Materials and Freight	175.00
41E	Head Choris Peninsula	Materials and Freight	175.00
67	Capc Douglas and Woolley	Repairs	186.00
67A	Lost River	materials for barn	39.05
87C	Agiapuk	Repairs, Cabin and barn	150.00
Total			\$2,872.08

PRESENT CONDITION AND NEEDS

The Nome local roads are all usable by automobiles in dry weather but are apt to be soft in continued wet weather. The Nome-Bessie road, which is the trunk road carrying about ninety per cent of traffic, should have additional surfacing.

The Nome-Council road is in fair condition for the traffic to be carried. In favorable weather it may be used by automobiles as far as East Fork. Beyond that point it follows the river bed in part and is passable for horse drawn vehicles only.

The Nome-Shelton tramway is passable throughout for dog cars and gasoline speeders. From Nome to Little Creek, Mile 5, it is suitable for ten ton loads and from Little Creek to Sherrette Creek, Mile 60, it is suitable for use by vehicles with loads up to four tons. It should be made suitable for this latter traffic throughout.

The winter trails have not been permanently staked throughout and part of the permanent staking which has been accomplished is not entirely satisfactory on account of the fact that only small willows were available for the purpose. All these trails should be well marked with suitable stakes.

DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	171½	\$51,208.68	\$ 298.59
Tramway	87	25,049.25	287.92
Sled Road	16	216.84	13.55
Permanent Trails	1,409	7,771.36	5.51
Temporary Trails	368½	4,043.40	10.97
Totals	2,052	\$88,289.53	\$ 43.03

SUMMARY OF FUNDS EXPENDED BY DISTRICTS.

District	COOPERATIVE FUNDS		Total
	Federal	Territorial	
Juneau Headquarters			
Southeastern	\$ 32,649.82(a)	\$ 24,577.01(b)	\$ 57,226.83
Eagle		845.13	845.13
Bethel		440.00	440.00
Valdez	2,957.45	7,550.00	10,507.45
Chitina	6,376.35	4,283.22	11,159.57
Fairbanks	3,061.88	5,040.54(c)	8,102.42
Nenana	8,101.48	15,235.15	23,336.63
Southwestern	20,192.87	18,786.81(d)	38,979.68
Kuskokwim		9,095.56	9,095.56
Nome	49,049.25	45,561.46(e)	95,610.71
Totals	\$122,839.10	\$132,414.88	\$255,303.98

(a)—Includes \$290.17 allotted by the Quartermaster General.

(b)—Includes \$562.01 contributed by the National Park Service and \$415.00 from sale of Territorial property.

(c)—Includes \$502.00 from the Fairbanks Exploration Co. and \$955.00 from the City of Fairbanks, on account of furnishing gravel from drugline.

(d)—Includes \$500.00 reimbursement from Alaska Railroad on account of Moose Creek road work in 1925.

(e)—Includes \$5,740.28 miscellaneous refunds and reimbursements on account of improvement of Nome Harbor.

TOTAL FUNDS

District	Construction	Maintenance	Total
Juneau Office and General Overhead (a)	\$ 12,217.29	\$ 22,160.00	\$ 34,317.29
Southeastern	42,167.17	15,959.66	57,226.83
Eagle	9,025.27	10,303.56	19,329.83
Bethel	2,325.12	1,043.79	3,368.91
Valdez	114,859.69	79,147.44	193,998.13
Chitina	144,449.91	101,746.29	246,196.20
Fairbanks	288,714.96	112,210.19	398,925.15
Nenana	30,975.67	28,997.65	59,973.32
Southwestern	112,344.03	35,589.75	147,933.83
Kuskokwim	38,123.89	18,313.60	54,437.49
Nome	38,850.33	58,760.38	95,610.71
Totals	\$823,045.33	\$483,272.31	\$1,311,317.64*

*Includes \$1,047.50 General Accounting Office settlements.

(a)—Includes expenses of sub-offices in Seattle, Wash., and Washington, D. C.

SPECIAL REPORTS.

INVESTIGATION AND REPORT REQUIRED BY THE ACT OF CONGRESS APPROVED JUNE 30, 1921.

Nome-Shelton-Kugruk River-Keewalik Reconnaissance

In compliance with the following proviso contained in the Act of Congress approved June 30, 1921:

Provided further, That not to exceed \$10,000 of the foregoing amount shall be expended for a preliminary investigation and report on the feasibility, desirability, and cost of the best and most practicable connection between the Nome-Shelton system of communications and the coal deposits of the Kugruk River, Chicago Creek, and the Keewalik mining district, whether by wagon road, sled road, tramway, trail or other means.

the Commission had a preliminary reconnaissance made of existing and prospective routes of communications on the Seward Peninsula in the fall of 1921. The investigation was completed during the summer of 1922.

Report dated December 1, 1922, was transmitted to Congress and printed in House Document No. 514, Sixty-Seventh Congress, fourth session. A plan of improvement is presented to the extent of:

From Shelton to Dahl, extension of the Nome-Shelton tramway, 12 miles, at \$12,500 per mile	\$150,000
From Dahl to Immachuk, improvement of winter trail to summer trail standard, including bridges, 65 miles, at \$3,000 per mile	195,000
From Immachuk to Candle Creek, construction of a tramway, 30 miles at \$13,500 per mile	405,000
Total	\$750,000

Maintenance is to be provided for by the Commission with its own funds, supplemented by contributions from the Territory.

The above report was referred to the Committee on Territories on December 20, 1922, House Joint Resolution 60, authorizing the improvement of the system of overland communications on the Seward Peninsula, Alaska, in accordance with the above report was introduced by Delegate Sutherland on December 5, 1923. It was reported out by the Committee on the Territories with the recommendation that it do pass on April 18, 1924.

It passed the House of Representatives by unanimous consent in February, 1925, but failed to get out of the Senate Committee on the Territories before the close of the Session.

Delegate Sutherland reintroduced his resolution in the Sixty-Ninth Congress. It was reported out by the Committee on the Territories in April, 1926, and is now on the House calendar.

INVESTIGATION AND REPORT REQUIRED BY ACT OF CONGRESS APPROVED SEPTEMBER 22, 1922.

Tolovana River, Alaska.

Reports dated December 15, 1922, and November 5, 1923, on the preliminary examination and survey of Tolovana River, Alaska, required by the river and harbor act of September 22, 1922, were submitted, reviewed by the Board of Engineers for Rivers and Harbors, and were submitted to Congress and printed in the House Document No. 193, Sixty-eighth Congress, first session.

Recommendation is made for the improvement of this locality by the United States from the mouth of the river to the log jam by snagging, and by widening the channel at the rock slide and the beaver dam and providing at both places a depth of 4 feet at low water, at an estimated cost of \$29,000, with nominal maintenance.

provided the Alaska Road Commission will provide and operate a public tram from the lower end of the log jam to Livengood.

In anticipation of the authorization by Congress of the improvement as above recommended, the Territorial Legislature, in its 1923 session, appropriated \$8,000 for the purchase of the existing Tolovana Tramroad, provided the Alaska Road Commission would agree to rehabilitate it and operate it as a public tram. After extended negotiations, the Alaska Road Commission purchased the Tramroad, on behalf of the Territory, for \$6,425.00. It has since rehabilitated and operated it.

Its extension to the log jam awaits negotiations to result from the adoption of the project by Congress. This project is included in the River and Harbor bill which passed the House near the close of the last session and is now on the Senate calendar.

INVESTIGATION AND REPORT REQUIRED BY THE ACT OF CONGRESS APPROVED MARCH 2, 1923.

Dock or Wharf at Juneau, Alaska.

In compliance with the following item contained in the Act of Congress approved March 2, 1923:

"For cost of survey and the preparation of plans and estimates for a Government Dock at Juneau, Alaska, \$600."

the Commission made a survey of the harbor of Juneau during the summer of 1923, selected a suitable site for a wharf, negotiated for an approach and access to the uplands, and prepared plans and estimates for construction. Its report, dated July 10, 1924, was transmitted to Congress and printed in House Document No. 561, 68th Congress, 2d Session.

Recommendation is made for the construction of a wharf 400 feet long and 40 feet wide at an estimated cost of \$22,500.00. The City of Juneau has agreed to contribute to the project necessary easements covering approach from Willoughby Avenue and to put the approach in good condition.

The project was adopted by Congress in the act of May 28, 1926. The work is to be performed by the Commission.

INFORMAL SPECIAL REPORTS.

Chilkoot Barracks Water Supply.

At the request of the commanding officer of the post of Chilkoot Barracks, Alaska, the President of the Commission made a special examination of the water main across Chilkat Inlet, which supplies the post and the town of Haines, Alaska, and submitted a special report on December 1, 1920, with recommendation for the repair of

the line. The line had been in service for nearly twenty years and had been roughly handled due to the great tidal range, the loose and shifting bottom, and the pounding of the ice-run. Permanent repairs or reconstruction could not be accomplished at any reasonable cost.

This report was approved by the War Department and the Commission was charged with the supervision of the work. The breaks and leaks were repaired and the water service restored in the summer of 1921. \$2,502.02 were expended.

During the winter of 1923-24, the line again gave trouble. At the request of the Quartermaster General, the Commission made a second report on June 5, 1924, recommending repairs, the construction of a reserve reservoir, and a survey to determine a permanent solution of the water-supply problem.

This report, except the survey to determine a permanent solution, was approved late in the fall. The pipe line was repaired and excavation for a million gallon concrete reservoir started during the fiscal year 1925. The work was continued and practically completed at the end of the fiscal year 1925. \$7,500 were expended.

Lowell Creek Survey.

At the request of the Secretary of the Interior dated May 15, 1924, the Commission made a survey of Lowell Creek to determine the works necessary and adequate to protect the Government property adjacent to the town of Seward, Alaska, from floods and overflows. This survey was made during the summer and report was submitted to the Secretary of the Interior on January 19, 1925. The cost of survey and report was \$80.75, which was paid by The Alaska Railroad.

Recommendation is made for the improvement of this locality by the United States to the extent of the construction of a rockfill dam and timber flume at an estimated cost of \$120,000 for construction. Maintenance is estimated at \$900 per year for 14 years, at which time the work will have to be renewed, the flume to be refitted at the end of 7 years at an estimated cost of \$12,500.

H. J. Res. 100 to authorize the expenditure of not to exceed \$125,000 for the work passed the House during the last session and is now on the Senate calendar.

STATEMENT OF RECEIPTS AND DISBURSEMENTS.

This report covers vouchers received and placed in the account, including June 30, 1926.

RECEIPTS

Balance on hand July 1, 1925	\$ 46,390.32
Received since from:	
War Warrants	103,548.29
Transfers from Officers	1,353,626.55
Sales, etc., Alaska Fund	11,885.47*
Reimbursements	9,279.09
Refunds	710.85
Contributions	2,672.00
Total	\$1,427,112.58

DEDUCTIONS:

Deposited to credit of Treasurer of United States Balance on hand close f.y. 1925.....	\$46,390.32	
Sales, etc., Alaska Fund	11,885.47	
Reimbursements	9,279.09	
Refunds	710.85	
Deposit of Contributions	2,672.00	70,937.73
		\$1,356,174.85

DISBURSEMENTS

Disbursed as per tabulated statement below.....	\$1,310,270.19**
Balance on hand in Army Account of Advances	45,904.66
	\$1,356,174.85

*—Does not include \$72.36—collections by General Accounting Office.
 **—Does not include \$1,047.50 charged against available appropriations by direct U. S. Treasury Settlement, nor free freight and passenger transportation service, valued at \$42,198.71, furnished by The Alaska Railroad.

EXPENDITURES IN DETAIL.

Federal Appropriations, Alaska Fund and Funds Contributed by the Territory of Alaska and Others

Acct. No.	Name of Route	Construction	Maintenance	Totals
3A	Haines-Wells	\$ 2,060.00	\$ 6,025.14	\$ 8,085.14
3B	Pleasant Camp Extension, 1st Sec.	13,050.00	5,120.00	18,170.00
3B	Pleasant Camp Extension, 2nd Sec.	15,500.00		15,500.00
3B	Pleasant Camp Extension, 3rd Sec.	7,511.69		7,511.69
3C	Porcupine Extension		25.00	25.00
3D	Haines-Mud Bay		261.75	261.75
3E	Haines-Chilkoot		64.50	64.50
4BA	Valdez-Ptarmigan Drop, 1st Sec.	9,790.09	9,200.00	18,990.09
4BA	Valdez-Ptarmigan Drop, 2nd Sec.	11,290.09	8,000.00	19,290.09
4BA	Valdez-Ptarmigan Drop 3rd Sec.	19,825.00	7,300.00	17,925.00
4BA	Valdez-Ptarmigan Drop, 4th Sec.	14,070.00	5,060.00	19,130.00
4BA	Valdez-Ptarmigan Drop, 5th Sec.	15,139.65	3,000.00	18,139.65
4BB	Ptarmigan Drop-Ernestine, 1st Sec.	8,300.00	8,020.00	16,320.00
4BB	Ptarmigan Drop-Ernestine, 2nd Sec.	9,529.00	10,100.00	19,629.00
4BB	Ptarmigan Drop-Ernestine, 3rd Sec.	7,227.69	10,042.00	17,269.69
4C	Ernestine-Willow Creek, 1st Sec.	10,130.00	8,520.00	18,650.00
4C	Ernestine-Willow Creek, 2nd Sec.	12,130.31	6,205.00	18,335.31
4D	Willow Creek-Gulkana, 1st Sec.	12,200.40	6,300.00	18,500.40
4D	Willow Creek-Gulkana, 2nd Sec.	14,204.39	4,900.00	19,104.39
4D	Willow Creek-Gulkana, 3rd Sec.	13,100.00	4,000.00	17,100.00
4E	Gulkana-Sourdough	509.09	7,816.20	8,316.29
4F	Sourdough-Mile 168	3,754.59	5,400.00	14,154.59
4G	Mile 168-Delta River, 1st Sec.	5,000.00	9,800.00	15,800.00
4G	Mile 168-Delta River, 2nd Sec.	5,711.00	9,400.00	15,111.00
4H1	Delta River-Rapids, 1st Sec.	7,250.00	9,100.00	16,350.00
4H1	Delta River-Rapids, 2nd Sec.	9,300.00	8,300.00	17,600.00
4H1	Delta River-Rapids, 3rd Sec.	3,101.57	9,020.00	17,121.57
4H2	Rapids-Grundler, 1st Sec.	9,210.00	10,150.00	19,360.00
4H2	Rapids-Grundler, 2nd Sec.	10,307.89	9,050.00	19,357.89
4I	Grundler-Richardson, 1st Sec.	3,500.00	4,200.00	12,700.00
4I	Grundler-Richardson, 2nd Sec.	5,000.00	5,720.00	12,410.00
4J	Richardson-Salchaket, 1st Sec.	10,500.00	5,420.00	15,920.00
4J	Richardson-Salchaket, 2nd Sec.	8,130.00	7,600.00	15,730.00
4J	Richardson-Salchaket, 3rd Sec.	10,402.64	5,190.00	15,592.64
4K	Salchaket-Fairbanks, 1st Sec.		9,250.00	9,250.00
4K	Salchaket-Fairbanks, 2nd Sec.	15,077.92	4,020.00	19,097.92
4KA	Salcha Bridge	12,307.89	2,725.00	14,932.89
5A	Dunbar-Port Gibbon		1,440.48	1,440.48
6A	Willow Creek-Tonsina, 1st Sec.	7,500.00	3,275.00	10,775.00
6A	Willow Creek-Tonsina, 2nd Sec.	8,035.85	2,475.00	10,510.85
6B	Tonsina-Chitina	5,220.08	7,220.00	12,440.08
6D	Chitina Depot	3,380.78	750.00	4,130.78
7A	Summit-Chatanika	8,354.40	4,500.00	12,854.40
7D	Ester Creek	920.00	2,279.01	3,199.01
7G	Fairbanks-Gilmore, 1st Sec.	13,427.00	3,300.00	17,227.00
7G	Fairbanks-Gilmore, 2nd Sec.	14,503.87	2,700.00	17,203.87
7I	Gilmore-Summit	4,514.38	3,100.00	7,614.38
7J	Fairbanks-Chena Hot Springs	500.00	1,203.06	1,703.06
7V	Fairbanks-Wireless Road		15.00	15.00
8	Nome-Council, 1st Sec.	2,000.00	14,050.00	16,050.00
8	Nome-Council, 2nd Sec.	6,402.43	2,150.00	8,552.43

Acct. No.	Name of Route	Construction	Maintenance	Totals
8H	Casa de Paga		727.52	727.52
11A	Eagle-Liberty		1,835.80	1,835.80
11AA	American Summit-King Solomon	5,429.14	1,000.00	6,429.14
11B	Liberty-Fortymile		171.50	171.50
11C	Steel Creek-Jack Wade		326.25	326.25
11CC	Steel Creek-Jack Wade (Summer)			
11D	Steel Creek-Walker's Fork		162.50	162.50
11E	Eagle-Seventymile	910.00	368.20	1,278.20
11F	Jack Wade-Chikoon		1,301.80	2,211.80
11G	Steel Creek-Chanyon Creek		814.20	814.20
11H	Liberty Cabin-Dome		92.00	92.00
11I	Dome-Steel Creek	500.00	77.15	577.15
11L	Franklin-Chicken Creek		1,485.49	1,985.49
11M	Jack Wade - Walker's Fork (Summer)		156.50	156.50
11MM	Jack Wade-Mouth of Walker's Fork		125.00	125.00
13A	Nome-Bessie	4,931.90	114.50	5,046.40
13B	Bessie-Banner		1,400.00	6,331.90
13C	Bessie-Little Creek	500.00	738.91	1,238.91
13F	Nome-Osborne		1,041.82	1,541.82
13K	Bessie-Buster	3,121.95	141.42	3,263.37
14A	Sitka National Monument		1,500.00	4,621.95
14B	Sitka National Cemetery	303.00	1,272.65	1,575.65
15	Circle-Miller House	150.00	631.82	781.82
16	Chatanika-Miller House, 1st Sec.	8,210.00	3,135.91	11,345.91
16	Chatanika-Miller House, 2nd Sec.		10,130.00	18,340.00
16	Chatanika-Miller House, 3rd Sec.	16,127.00	3,000.00	19,127.00
16	Chatanika-Miller House, 4th Sec.	17,800.00	2,009.00	19,809.00
16	Chatanika-Miller House, 5th Sec.	19,725.00		19,725.00
16	Chatanika-Miller House, 6th Sec.	19,910.00		19,910.00
16	Chatanika-Miller House, 7th Sec.	19,850.00		19,850.00
16	Chatanika-Miller House, 8th Sec.	19,975.00		19,975.00
17	Fort Gibbon-Katag	19,703.48		19,703.48
18	Katag-Nome		514.00	514.00
18A	Bonanza-Kotzebue	2,000.00	969.88	2,969.88
26DA	Tokotna-Ophir		234.78	234.78
21	Unalakleet-St. Michael		396.43	396.43
22	Hot Springs-Sullivan Creek		162.28	162.28
23A	Snowshoe-Beaver		3,075.95	3,075.95
23B	Beaver-Caro		916.81	916.81
23C	Big Creek	5,250.00	9,220.10	14,470.10
23D	Caro-Flat Creek	1,060.00	907.57	1,967.57
25D	Mouth of Center Creek		529.32	529.32
25E	Submarine Paystreak		122.15	122.15
25F	Anvil-Glacier	1,489.41	359.39	1,848.80
25G	Snake River Extension		900.00	2,389.41
25L	Nome Aviation Field	2,500.00	963.53	3,463.53
25M	Seward Peninsula Telephone Lines		2,500.00	2,500.00
26	Candle-Candle Creek		2,149.10	2,149.10
27	Deering-Innachuik	1,500.00	1,020.69	2,520.69
28A	Nome-Taylor		3,295.08	5,495.08
29	Fort Gibbon-Bettles		455.68	455.68
29A	Bettles-Coldfoot		780.75	780.75
30	Hot Springs Landing-Mureka	1,500.00	130.75	1,630.75
30A	Hot Springs-Tofty	600.00	5,473.77	6,073.77
31	Caribou Creek		658.47	1,258.47
32A	Tokotna-Flat (Summer)		123.71	123.71
32AC	Candle Creek-Tokotna		463.33	463.33
			74.89	74.89

Acct. No.	Name of Route	Construction	Maintenance	Totals
32B	Iditarod-Flat	3,858.20	2,400.00	6,258.20
32C	Ophir-Iditarod (Winter)		235.88	235.88
33D	Flat-Crooked Creek (Winter)	500.00	1,107.60	1,607.60
32E	Tokotna Aviation Field	1,691.19		1,691.19
32F	Tokotna Depot	1,650.26	300.00	1,950.26
33C	Flat City-Flat Creek		623.80	623.80
33D	Head Flat Creek-Willow Creek		730.95	730.95
33F	Flat City-Otter Discovery		480.60	480.60
33H	Flat Aviation Field	1,200.00		1,200.00
34B	Iditarod-Shageluk	500.00		500.00
35A	Archangel Extension	1,200.00	1,767.42	2,967.42
35AA	Sherry Branch	1,119.32		1,119.32
35AB	Fairangel Extension	704.20		104.20
35D	Willow Creek Extension		2,855.60	2,855.60
35E	Wasilla-Fishhook		4,284.58	4,284.58
36F	Wasilla-Kolk	2,610.00	4,665.62	7,275.62
35H	Wasilla-Finger Lake-Pulmer		220.30	220.30
35J	Wasilla-Matanuska	3,520.00	2,317.62	5,837.62
35K	Matanuska Trunk Road		391.50	391.50
35N	Houston-Willow Creek		249.00	249.00
36	Mineral Creek	6,817.01	3,341.00	10,158.01
36A	Granby Road		349.44	349.44
38A	Ruby-Long		4,183.79	4,183.79
38C	Ophir-Cripple		475.79	475.79
38D	Ophir-Tokotna, 1st Sec.	10,240.00	2,340.00	12,580.00
38D	Ophir-Tokotna, 2nd Sec.	12,758.16	3,210.00	15,978.16
38E	Long-Poorman (Summer)		2,200.00	13,225.28
38F	Poorman-Ophir		702.59	702.59
38H	Ganes Creek Road	2,158.85	3,000.00	5,158.85
38K	Ruby Aviation Field	600.00		600.00
40	Douglas-Gastineau Channel	2,102.16	800.00	2,902.16
41B	Kotzebue-Point Barrow	1,900.84		1,900.84
44A	Skagway-Smuggler's Cove		558.80	558.80
46	Kobi-Eureka		659.75	659.75
46D	McKinley Park Road, 1st Sec.	15,230.00	49.16	15,279.16
46D	McKinley Park Road, 2nd Sec.	18,300.00		18,300.00
46D	McKinley Park Road, 3rd Sec.	19,060.24		19,060.24
46E	Diamond-Telida		988.89	988.89
46F	Nenana Cemetery		619.20	619.20
46G	Kobi-Bonfield		60.90	60.90
46H	Lake Minchumina Aviation Field	750.00		750.00
47	Coldfoot-Wiseman		657.24	657.24
47A	Wiseman Aviation Field	3,000.00		3,000.00
48	Hiamna Bay-Hiamna Lake	5,770.00	725.00	6,495.00
49	Davidson's Landing-Taylor		2,616.84	2,616.84
51	Talkeetna-Cache Creek	2,000.00	8,229.12	10,229.12
51A	Cache Creek Trail	1,270.00	706.28	1,976.28
51E	Peters Creek Trail	3,807.93	620.00	4,427.93
51C	Upper Yentna	1,114.91		1,114.91
53	Eagle-Circle	742.00	947.78	1,689.78
53A	Circle-Fort Yukon		1,219.65	1,219.65
53B	Fort Yukon Aviation Field	1,190.89		1,190.89
54	Chisana-Nizina	770.19		770.19
55	Kenai-Russian River	1,200.00	1,908.87	3,108.87
57	McCarthy-Nizina	9,291.88	6,290.00	15,581.88
57A	Nizina River Bridge	3,000.00	3,876.35	6,876.35
59	Fairbanks Bridge		13.85	13.85
59A	Fairbanks Depot	3,403.00		3,403.00
51	Streina-Kuskutana		1,321.44	1,321.44
62	Dime Creek		2.50	2.50
63	Durbar-Brooks	2,500.00	1,706.02	4,206.02
63B	Brooks-Amy Creek		277.10	277.10
63C	Brooks Tram		4,196.59	4,196.59
63E	Livengood Aviation Field	294.00		294.00
64AA	Cripple-Cripple Mountain		611.05	611.05
65A	Gulkana-Chistochina, 1st Sec.	13,500.00	2,185.00	15,685.00
65A	Gulkana-Chistochina, 2nd Sec.	5,600.00		5,600.00
65D	Ketchumstuk-Tanana Crossing		807.00	807.00
65E	Chicken-Ketchumstuk		144.50	144.50

Acct. No.	Name of Route	Construction	Maintenance	Totals
65F	Crundler-Tanana Crossing	602.26		602.26
65G	Siuna-Chisna Reconnaissance	385.04		385.04
67	Nome-Teller		697.90	697.90
68	Flagging Trails		4,043.40	4,043.40
73C	Old Hamilton-Scammon Bay	1,100.00		1,100.00
75	Anchorage-Eagle River	4,973.60	5,800.00	10,773.60
75B	Anchorage-Whitney	3,627.47	1,500.00	5,127.47
75D	Anchorage Warehouse		427.98	427.98
75E	McDonald Road	605.13	150.00	755.13
76	Cantwell-Valdez Creek		21.00	21.00
79	Seward Warehouse		16.00	16.00
80	Minchumina Portage Recor.	500.00		500.00
80A	McGrath-Tokotna (Summer)		60.20	60.20
80AA	McGrath-Tokotna (Winter)		831.42	831.42
80B	McGrath-Telida		408.90	408.90
80E	Tokotna-Twin Peaks	113.16		113.16
80G	Tokotna-Nixon Fork (Summer)		160.56	160.56
80GG	Tokotna-Nixon Fork (Winter)		108.16	108.16
81	Good Creek-Salmon River	1,403.32	300.00	1,783.32
86	Fourth of July Creek	600.00	440.39	1,040.39
88	Ferry-Eva Creek	10,155.79	1,400.00	11,555.79
89A	Seward Peninsula Railroad, 1st Sec.	7,649.25	4,200.00	11,849.25
89A	Seward Peninsula Railroad, 3rd Sec.		13,200.00	13,200.00
90E	Shelter Cabins, 2nd Division	1,754.55	917.53	2,672.08
90C	Shelter Cabins, 3rd Division	2,852.73	417.30	3,270.03
90D	Shelter Cabins, 4th Division	3,340.60	432.70	3,773.30
92A	Bethel-Quinhagak		112.60	112.60
92B	Bethel-Akiak	300.00	222.77	522.77
92L	Crooked Creek-Aniak		277.42	277.42
92M	Aniak-Tuluksak		25.00	25.00
92N	Akiak-Canyon Creek		206.00	206.00
92O	Tuluksak-Bear Creek	1,185.12		1,185.12
92P	Holy Cross-Kaltshak	500.00		500.00
93	Chudina Trail		116.29	116.29
93A	Bull River Trail	1,183.51	200.00	1,383.51
93B	Indian River Footbridge		4.00	4.00
94	Kodiak-Abberts	13,734.29	500.00	14,234.29
95	Kana'ak-Becharof Lake		50.75	50.75
96	Chickaloon-King River		413.66	413.66
98	Homer Project	7,382.57		7,382.57
98A	Nuka Bay	4,302.66		4,302.66
100	Juneau Office and General Overhead	12,217.29	22,100.00	34,317.29
	Totals	\$828,045.88	\$483,272.31	\$1,311,317.69

EXPENDITURES IN DETAIL—COOPERATIVE FUND.

(Included in Preceding Table.)

FIRST DIVISION.

Acct. No.	Name of Route	Federal	Territorial	Total
3A	Haines-Wells	\$ 6,885.14	\$ 1,200.00	\$ 8,085.14
3B	Pleasant Camp Extension	21,746.19	19,435.50(a)	41,181.69
3C	Porcupine Extension	10.00	15.00	25.00
3D	Haines-Mud Bay	111.75	150.00	261.75
3E	Haines-Chilkoot		64.50	64.50
14A	Sitka National Monument	610.64	962.01(b)	1,572.65
14B	Sitka National Cemetery	531.82(c)	250.00	781.82
40	Douglas-Gastineau Channel	1,702.16	1,200.00	2,902.16
44A	Stagway-Smuggler's Cove	358.80	200.00	558.80
81	Good Creek-Salmon River	693.32	1,100.00	1,793.32
	Totals	\$ 32,649.82	\$ 24,577.01	\$ 57,226.83

(a)—Includes \$415 from sales of Territorial property.

(b)—Includes \$562.01 contributed by the National Park Service.

(c)—Includes \$290.17 allotted by the Quartermaster General.

SECOND DIVISION.

Acct. No.	Name of Route	Federal	Territorial	Total
8	Nome-Council	\$ 7,632.43	\$ 16,970.00(d)	\$ 24,602.43
3H	Casa de Paga Road	227.52	500.00	727.52
13A	Nome-Bessie	2,821.90	3,500.00	6,331.90
13D	Bessie-Danner	233.91	450.00	733.91
13C	Bessie-Little Creek	641.82	900.00	1,541.82
13F	Nome-Osborne	51.42	90.00	141.42
13K	Bessie-Buster	1,827.95	2,800.00	4,627.95
18	Kaftag-Nome	1,169.88	1,800.00	2,969.88
18A	Bonanza-Kotzebue	84.73	150.00	234.73
21	Unalakleet-St. Michael	62.28	160.00	222.28
25D	Mouth of Center Creek	42.15	80.00	122.15
25E	Submarine Paystreak	119.39	240.00	359.39
25F	Anvil-Glacier	1,139.41	1,200.00	2,339.41
25G	Snake River Extension	463.53	500.00	963.53
25L	Nome Aviation Field		2,500.00	2,500.00
25M	Telephone Lines		2,149.10	2,149.10
26	Candle-Candle Creek	520.69	500.00	1,020.69
27	Deering-Inmachuk	3,495.06	3,000.00	6,495.06
28A	Nome-Taylor	155.68	300.00	455.68
41B	Kotzebue-Pt. Barrow	1,041.55	859.28	1,900.84
49	Davidson's Landing-Taylor	1,016.84	1,600.00	2,616.84
62	Dime Creek	1.50	1.00	2.50
67	Nome-Teller	297.90	400.00	697.90
68	Flagging Trails	1,413.40	2,600.00	4,043.40
73C	Scammon Bay Trail	400.00	700.00	1,100.00
89A	Seward Peninsula Railroad	25,049.25		25,049.25
90E	Shelter Cabins		2,672.08	2,672.08
	Totals	\$ 49,049.35	\$ 46,561.46(e)	\$ 95,610.71

(d)—Includes \$5,740.23 miscellaneous refunds and reimbursements on account of improvement of Nome Harbor.

(e)—\$2,500 additional was appropriated for Nome Harbor and was deposited to credit of River and Harbor funds.

THIRD DIVISION.

Acct. No.	Name of Route	Federal	Territorial	Total
35J	Wasilla-Matanuska	\$ 2,159.06	\$ 3,678.56	\$ 5,837.62
36	Mineral Creek-Valdez	2,957.45	7,200.56	10,158.01
36A	Granby Road		349.44	349.44
55	Kennai-Russian River	1,908.87	1,200.00	3,108.87
57A	Nizina Bridge	6,876.35		6,876.35
61	Stroelna-Kuskulana		1,321.44	1,321.44
75	Anchorage-Bagle River	7,073.60	3,790.00 (C)	10,773.60
75E	Anchorage-Whitney	3,027.47	2,100.00	5,127.47
75E2	McDonald Road	455.13	300.00	755.13
90C	Shelter Cabins		3,270.03	3,270.03
93A	Bull River Trail	783.51	600.00	1,383.51
98	Homer-Kachemak	3,482.57	3,900.00	7,382.57
98A	Nuka Bay	1,302.66	3,000.00	4,302.66
Totals		\$ 30,026.67	\$ 30,620.03	\$ 60,646.70

(f)—Includes \$500 reimbursement from The Alaska Railroad on account of Moose Creek road work in 1925.

FOURTH DIVISION.

Acct. No.	Name of Route	Federal	Territorial	Total
7D	Fairbanks-Ester	\$ 1,142.01	\$ 2,057.00 (z)	\$ 3,199.01
7J	Fairbanks-Chena Hot Springs	1,403.06	300.00	1,703.06
22	Hot Springs-Sullivan	484.80	2,591.15	3,075.95
23A	Snowshoe-Beaver	516.81	400.00	916.81
30	Hot Springs Landing-Eureka	2,973.77	4,000.00	6,973.77
32E	Tokotna Aviation Field		1,691.19	1,691.19
33H	Flat Aviation Field		1,200.00	1,200.00
38H	Ganes Creek Road		5,158.85	5,158.85
38K	Ruby Aviation Field		600.00	600.00
46P	Nenana Cemetery	219.20	400.00	619.20
46H	Lake Minchumina Aviation Field		750.00	750.00
47A	Wiseman Aviation Field		2,000.00	2,000.00
53E	Fort Yukon Aviation Field		1,190.89	1,190.89
63	Dunbar-Brooks	233.12	3,972.90	4,206.02
63B	Brooks-Amy Creek		277.10	277.10
63C	Brooks Tram	4,190.59		4,190.59
63E	Livengood Aviation Field		294.00	294.00
90D	Shelter Cabins		3,773.30	3,773.30
Totals		\$ 11,163.36	\$ 30,656.38	\$ 41,819.74

(g)—Includes \$802 from Fairbanks Exploration Company and \$955 from the City of Fairbanks on account of furnishing gravel from dragline.

SUMMARY.

	Federal	Territorial	Total
First Division	\$ 32,649.32	\$ 24,577.01	\$ 57,226.33
Second Division	49,049.25	46,561.46	95,610.71
Third Division	30,026.67	30,620.03	60,646.70
Fourth Division	11,163.36	30,656.38	41,819.74
Totals	\$122,889.10	\$132,414.88	\$255,303.98

DISTRIBUTION OF EXPENDITURES.

0111	Salaries	\$ 63,276.86
0112	Wages	574,429.35
0200	Stationery	1,414.74
02012	Other Office Supplies	413.36
0210	Medical and Hospital Supplies	163.14
0220	Scientific and Educational Supplies	16.25
0230	Fuel (including gasoline and oils)	37,315.15
0240	Wearing Apparel	37.50
0250	Forage and Other Supplies for Animals	30,499.07
0260	Provisions	134,264.55
0270	Powder, explosives, etc.	3,965.26
0280	Sundry Supplies (including lubricants, etc.)	17,458.66
0290	Construction Materials	84,163.65
03	Subsistence (persons)	47,803.37
04	Subsistence and care of animals	1,105.70
0500	Telegraph Service	222.22
0510	Telephone Service	842.45
0520	Other Communication Service (inc. P. O. box rent)	76.50
06	Travel Expense (transportation of persons, etc.)	13,265.80
07	Transportation of Freight	72,978.90
0800	Printing and Binding	1,009.00
0810	Lithographing, Engraving, etc.	0.00
0830	Photographing, Making Prints, etc.	340.70
10	Furnishing of Heat, Light, Power and Water	1,756.66
1100	Rents (building, structure, room, etc.)	2,730.00
1110	Other Rents (inc. hire of teams, rent motor equip.)	57,448.06
12	Repairs and Alterations to Equipment, Machinery, etc.	51,737.34
13	Miscellaneous Current Expenses (inc. exchange, etc.)	4,963.56
3010	Equipment, (furniture and fixtures)	5,632.32
3040	Livestock (horses, dogs, etc.)	220.00
3050	Other Equipment	71,048.91
3210	Other Structures (excavations, embankments, etc.)	29,681.08

\$1,310,270.19

Treasury Settlements 1,047.50

\$1,311,317.69

DISTRIBUTION BY APPROPRIATIONS.

From appropriations for support of War Department:

F.Y. 1923-1924, Act of March 2, 1923	\$ 161.93
F.Y. 1924-1925, Acts of June 7 and December 6, 1924	158.29
F.Y. 1925-26, Act of February 12, 1925	748,339.69
F.Y. 1926-27, Act of April 16, 1926	264,867.62
National Cemeteries, 1925	2.17
National Cemeteries, 1926	288.00

From the Alaska Fund, Act of Jan. 27, 1905, as amended 115,025.11

From Contributed Funds, Act of June 30, 1921:

Territory of Alaska, Roads, Bridges and Trails	\$107,505.28
Aviation Fields	10,326.08
Shelter Cabins	9,715.41
Telephone Lines	2,149.10
	129,595.87

Others, The Alaska Railroad	\$ 500.00
National Park Service, Sitka	562.01
Fairbanks Exploration Company	802.00
City of Fairbanks	955.00
	2,819.01

From appropriations for support of Interior Dept.:

Roads and Trails, National Parks 50,000.00

Total \$1,311,317.69

DISTRIBUTION OF WAR DEPARTMENT APPROPRIATIONS BY PROCUREMENT AUTHORITY NUMBERS.

Act of February 12, 1925		Authority No.	
"Eng.236P-820-A1070-56"	\$ 156.37	Telegrams.	
1387	3,969.03	Machinery not otherwise listed.	
3316	86,320.85	Repairs and alterations.	
4275	443,491.95	Wages—all employees.	
4568	56,249.83	Installation of roads, walks, bridges and drainage.	
4586	7,935.61	Construction of tramways, ferries and trails.	
4625	28,604.39	Food and lodging and miscellaneous services.	
4648	51,678.43	Provisions.	
4822	2,339.72	Sundry Office Supplies.	
4845	48,800.77	Supplies not listed specifically.	
4930	29,990.85	Transportation of equipment, etc.	
5070	8,851.89	Reimbursement of travel expenses (transportation of persons.)	
Total.....			\$748,339.69
Act of April 15, 1926		Authority No.	
"Eng.208P-920-A1070-67"	\$ 27.36	Telegrams.	
1387	59,343.82	Machinery not otherwise listed.	
3316	8,141.83	Repairs and alterations.	
4275	44,881.75	Wages—all employees.	
4568	23,779.66	Installation of roads, walks, bridges and drainage.	
4586	3,014.08	Construction of tramways, ferries and trails.	
4625	10,332.13	Food and lodging and miscellaneous services.	
4648	47,616.29	Provisions.	
4822	798.70	Sundry Office Supplies.	
4845	50,027.57	Supplies not listed specifically.	
4930	14,656.61	Transportation of equipment, etc.	
5070	2,248.02	Reimbursement of travel expenses (transportation of persons.)	
Total.....			\$264,867.62

I. APPROPRIATIONS.

1. Construction and Maintenance of Military and Post Roads, Bridges, and Trails, Alaska.

Act of—	Act of—
June 12, 1906\$ 150,000.00	May 2, 1917\$ 500,000.00
June 20, 1906 35,000.00a	July 9, 1918 100,000.00
Mar. 2 1907 250,000.00	July 11, 1919 100,000.00
May 11, 1908 250,000.00	June 5, 1920 350,000.00
Mar. 3, 1909 350,000.00	June 30, 1921 425,000.00c
Mar. 23, 1910 100,000.00	June 30, 1922 465,000.00
Mar. 3, 1911 150,000.00	Mar. 2, 1923 650,000.00d
Aug. 24, 1912 125,000.00	June 7, 1924 725,000.00
Mar. 2, 1913 155,000.00b	Dec. 8, 1924 55,000.00e
Apr. 27, 1914 125,000.00	Feb. 12, 1925 900,000.00
Mar. 4, 1915 165,000.00	Apr. 15, 1926 800,000.00
Aug. 29, 1916 500,000.00	
	Total .....\$7,525,600.00

a—For Fairbanks-Council Survey.
 b—Includes \$55,000.00 for Valdez dike.
 c—Includes \$10,000.00 for Nome-Keewalik Survey.
 d—Includes \$800.00 for survey Juneau Dock.
 e—Deficiency to cover Increase of Compensation, 1925.

2. Construction and Maintenance of Wagon Roads, Bridges and Trails,

"Alaska Fund."

Fiscal year—	Fiscal year—
1905\$ 28,130.56	1916\$ 172,952.67
1906 112,462.19	1917 136,677.26
1907 115,259.29	1918 190,308.52
1908 144,041.56	1919 181,163.37
1909 108,713.67	1920 138,529.19
1910 182,028.17	1921 92,661.88
1911 122,843.40	1922 97,461.62
1912 207,947.59	1923 119,227.10
1913 173,171.07	1924 115,803.20
1914 175,734.28	1925 123,871.33
1915 147,602.97	1926 137,431.66
	Total .....\$3,013,012.55
Proceeds from Sales, Refunds, etc. since 1920	47,077.83
Grand Total	\$3,060,090.18

3. Increase of Compensation, War Department.

Fiscal year—	Fiscal year—
1918\$ 145.20	1922\$ 4,322.09
1919 1923 32,846.67	
1920 56,305.54	
1921 940.00	
	Total\$ 96,059.59

4. National Cemeteries.

Fiscal year—	Fiscal year—
1925\$ 302.17	1926\$ 300.00
	Total\$ 602.17

5. Roads and Trails, National Parks.

Act of—	Act of—
March 3, 1925\$ 80,000.00	May 10, 1926\$ 50,000.00
	Total\$ 130,000.00

1. Total Federal Appropriations\$10,811,351.85

II. CONTRIBUTED FUNDS.

Act of Congress approved June 30, 1921, Alaska Special Fund.

1. By the Territory:

Act of Legislature approved April 21, 1919, Public Roads, Bridges, Trails and Ferries.

Fiscal Year:	
1920 .....\$116,517.94	
1921 85,746.61	\$201,264.55

Approved May 7, 1921, Public Roads, Bridges, Trails, and Ferries:

Fiscal Year:	
1921 28,000.00	
1922 43,237.28	
1923 88,512.38	159,750.16

Approved May 5, 1921, Nizna River Bridge.

Fiscal Year:	
1922 5,000.00	
1923 20,000.00	25,000.00

Approved May 7, 1921, Shelter Cabins.

Fiscal Year:		
1922	5,500.00	
1923	3,500.00	10,000.00

Approved May 4, 1923, Public Roads, Bridges, Trails and Ferries:

Fiscal Year:		
1924	91,325.35	
1925	75,478.45	167,803.80

Approved May 4, 1923, Shelter Cabins:

Fiscal Year:		
1924	15,000.00	15,000.00

Approved April 30, 1925, Public Roads, Bridges, Trails and Ferries:

Fiscal Year:		
1926	113,850.00	113,850.00

Approved April 30, 1925, Shelter Cabins:

Fiscal Year:		
1925	2,500.00	
1926	17,500.00	20,000.00

Approved April 30, 1925, Telephone Lines, Seward Peninsula:

Fiscal Year:		
1926	2,149.10	2,149.10

Total Territory		\$714,317.61
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2. By Others:

Fiscal Year 1922:		
City of Valdez	\$ 220.02	
City of Wrangell	500.00	
City of Sitka	500.00	
Alpine Club of Skagway	463.75	\$ 1,683.77

Fiscal Year 1923:		
City of Valdez	601.83	
City of Juneau	777.71	1,379.54

Fiscal Year 1924:		
Stewart & Denhart	540.00	
National Park Service	500.00	
City of Nome	3,500.00	4,540.00

Fiscal Year 1925:		
The Alaska Railroad	80.75	
National Park Service	242.37	
Tanana Valley Dredging Co.	360.00	
P. L. McDonald	100.00	883.12

Fiscal Year 1926:		
The Fairbanks Exploration Co.	802.00	
City of Fairbanks	955.00	
The Alaska Railroad	500.00	
National Park Service	562.01	2,819.01

Totals, Others		11,305.44
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II. Total. Contributed Funds		\$726,123.05
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III. EXPENDITURE OF OTHER FUNDS SUPERVISED BY THE COMMISSION.

Fiscal Year 1920 and prior years		\$1,221,574.09
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Fiscal Year 1921:

1. For the Territory of Alaska:		
Kuskulana Bridge	\$ 750.00	
2. For the Chief of Engineers, U. S. Army:		
Rivers and Harbors, Fish Traps, etc.	1,602.50	
Totals		2,352.50

Fiscal Year 1922:

1. For the Territory of Alaska:		
Chairman, 3rd Division	\$ 7,812.19	
Chairman, 4th Division	21,365.00	
2. For the Chief of Engineers, U. S. Army:		
Rivers and Harbors, Fish Traps, etc.	47,503.45	
3. For the Quartermaster General, U. S. Army:		
Chilkoot Barracks water supply	2,502.02	
Total		79,182.67

Fiscal Year 1923:

1. For the Territory of Alaska:		
Chairman, 3rd Division	\$ 10,855.72	
Chairman, 4th Division	15,717.11	
Seward Peninsula Railroad	24,014.00	
2. For the Chief of Engineers, U. S. Army:		
Rivers and Harbors, Fish Traps, etc.	21,145.12	
3. For The Alaska Railroad	1,590,570.09	
Total		\$1,662,302.04

Fiscal Year 1924:

1. For the Territory of Alaska:		
Chairman, 3rd Division	\$ 14,993.86	
Chairman, 4th Division	20,000.50	
Tolovana Tram Road	5,425.00	
2. For the Chief of Engineers, U. S. Army:		
Rivers and Harbors, Fish Traps, etc.	37,931.56	
3. For The Alaska Railroad	1,511,878.05	
4. For the National Park Service:		
Mt. McKinley National Park Road	700.25	
Total		\$1,581,929.22

Fiscal Year 1925:

1. For the Territory of Alaska:		
Chairman, 3rd Division	\$ 11,806.14	
Chairman, 4th Division	9,000.00	
Kaitag Portage Survey	312.72	
2. For the Chief of Engineers, U. S. Army:		
Rivers and Harbors, Fish Traps, etc.	54,417.89	
3. For the Quartermaster General, U. S. Army:		
Chilkoot Barracks Water Supply	2,500.00	
Total		\$ 78,036.75

Fiscal Year 1926:

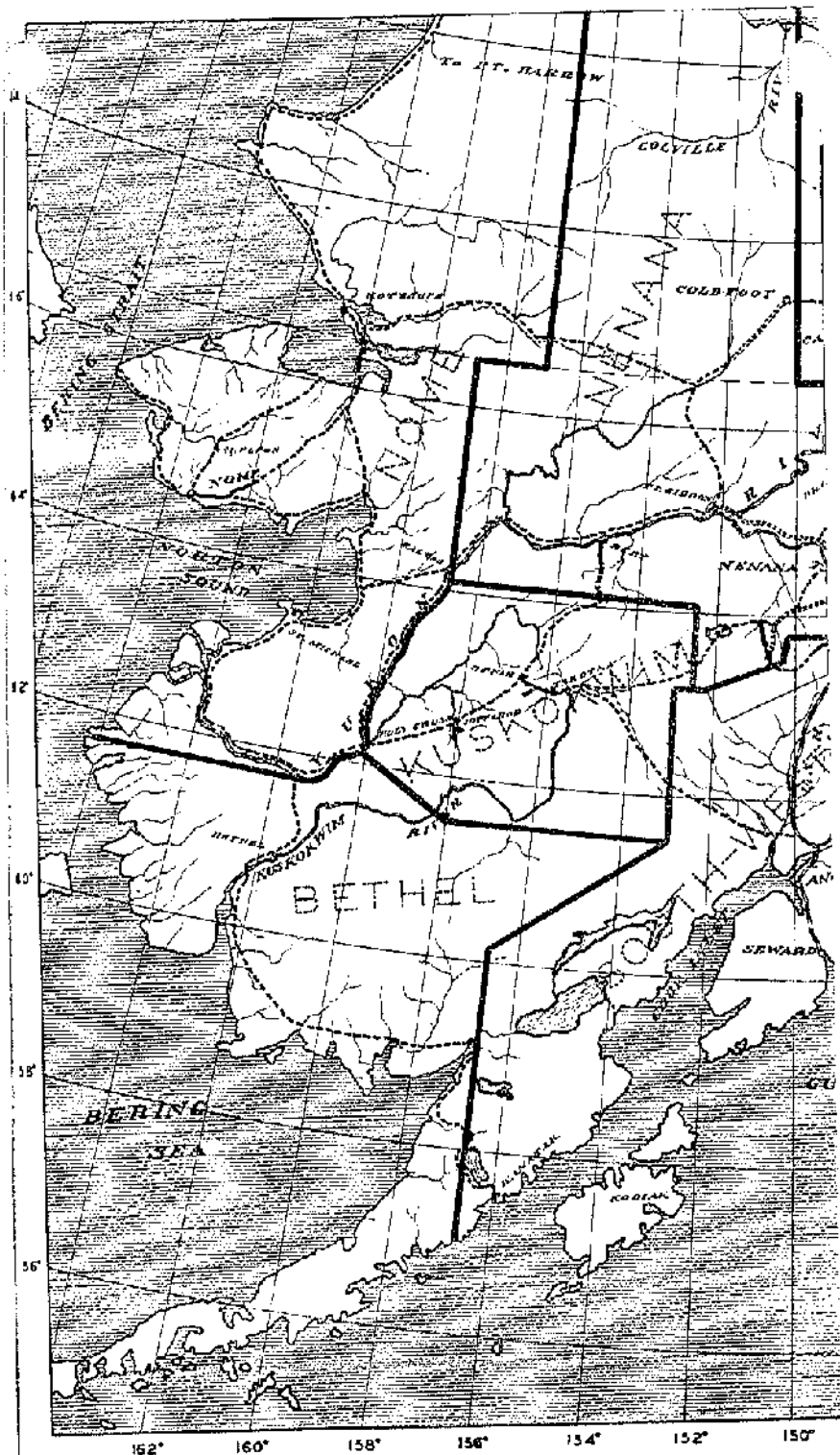
1. For the Territory of Alaska:	
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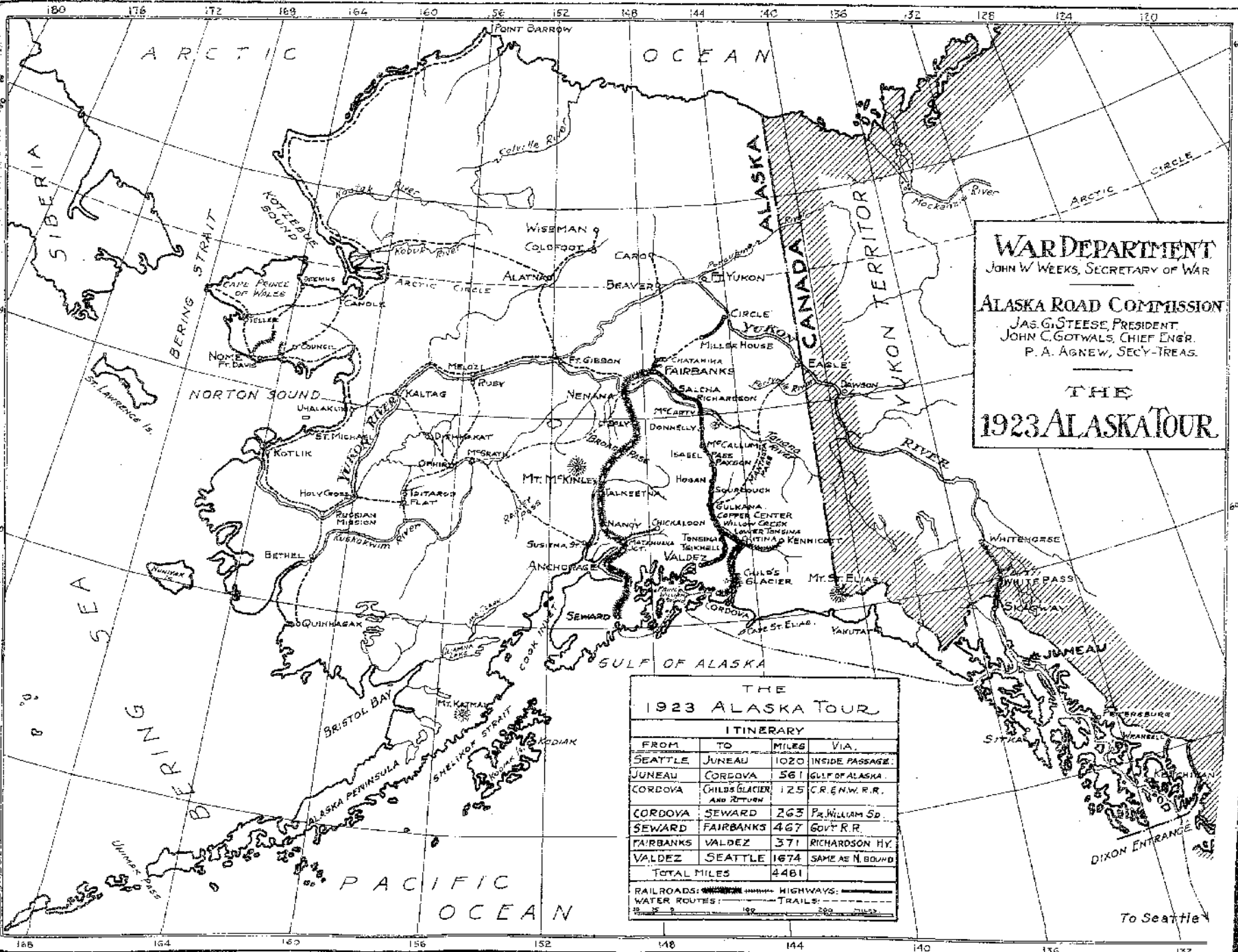
ANNUAL REPORT ALASKA ROAD COMMISSION.

Acct. No.	Name	Miles	Expenditure
Chairman, 3rd Division			
	Overhead		\$ 30.00
10B	Seward-Nash	3 1/2	800.00
35C	Palmer-Matanuska River	1 1/2	411.42
35I	Moose-Palmer	6	200.00
35L	Palmer-Matanuska	6 1/2	582.86
35R	Bogard Road	3 1/2	2,888.58
75A	Anchorage-Lake Spenard	4	4,970.00
Totals			\$ 9,882.86

Acct. No.	Name	Miles	Expenditure
Chairman, 4th Division			
	Overhead		\$ 85.00
7AA	Cleary Creek	3	865.46
7B	Fox-Olmes	13	164.50
7C	Fairbanks Creek	13	3,887.83
7DA	College Spur	1 1/2	95.00
7DB	St. Patrick's Creek	2 1/2	3,603.73
7GA	Lazelle Road	2 1/2	186.33
7H	Little Eldorado Creek	8	847.67
7K	Olmes-Livengood	54	513.25
7N	Farmers-Birch Hill	9	814.69
7NA	Isabelle Creek	2	10.00
7T	Farmers-Chena Slough	4 1/2	496.14
18A	Central House-Circle Hot Springs	9	299.50
63D	Brooks-Aviation Field	1 1/2	488.00
Totals			\$ 12,360.00

2. For the Chief of Engineers, U. S. Army:			
Rivers and Harbors, Fish Traps, etc.			
	Improvement of Nome Harbor	\$ 26,407.95	\$ 47,521.95
	Improvement of Wrangell Harbor	3,374.38	
	Improvement of Wrangell Narrows	9,053.44	
	Preliminary Examination of Resurrection Bay	142.30	
	Preliminary Examination of Port Alexander	250.00	
	Preliminary Examination of Yukon River at Holy Cross	100.00	
	Preliminary Examination of Yukon River at Fort Yukon	50.00	
	Preliminary Examination of Hyder Harbor	300.00	
	Preliminary Examination of Sackman Harbor	12.50	
	Preliminary Examination of Wrangell Harbor	31.00	
	Public Hearings, Fish Traps, etc.	7,819.33	
Total			\$ 47,521.95
3. For the Quartermaster General, U. S. Army:			
	Chilkoot Barracks Water Supply		\$ 5,000.00
4. Miscellaneous:			
	Valdez—Repairs to Dike	\$ 4,638.00	
	Fort Yukon—Aviation Field	600.00	
	Brooks—Road to Aviation Field	225.00	
	Ruby—Aviation Field	600.00	
	Wiseman—Aviation Field	1,513.25	
	Flat—Aviation Field	600.00	
Total			\$ 8,276.25
Total Supervised Funds, Fiscal Year 1926			83,041.66
III. Total, Supervised Funds			4,718,435.33
Grand Total, All Funds			\$18,255,833.23





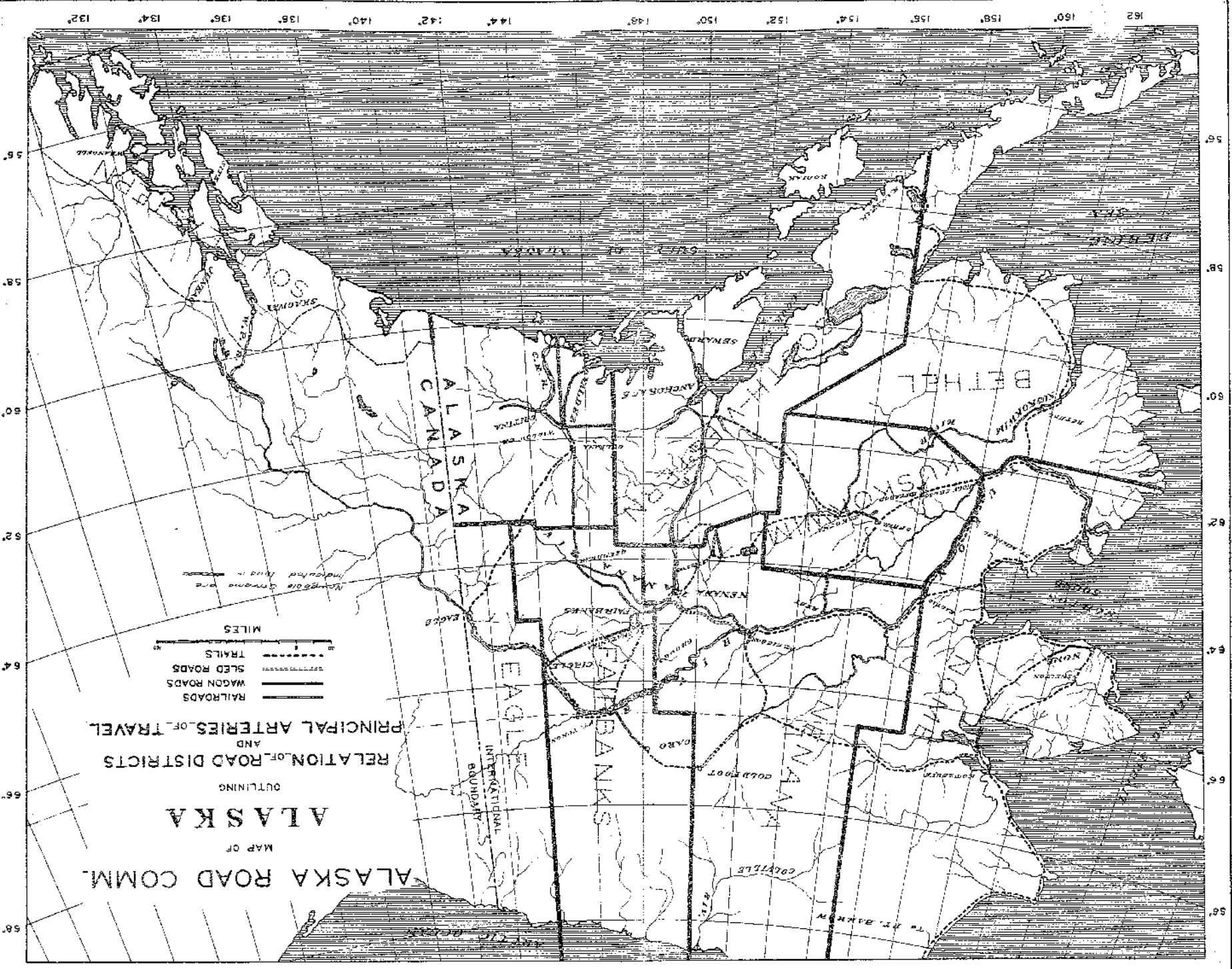
WAR DEPARTMENT
 JOHN W. WEEKS, SECRETARY OF WAR
ALASKA ROAD COMMISSION
 JAS. G. STEESE, PRESIDENT
 JOHN C. GOTWALS, CHIEF ENGR.
 P. A. AGNEW, SECY-TREAS.
THE 1923 ALASKA TOUR

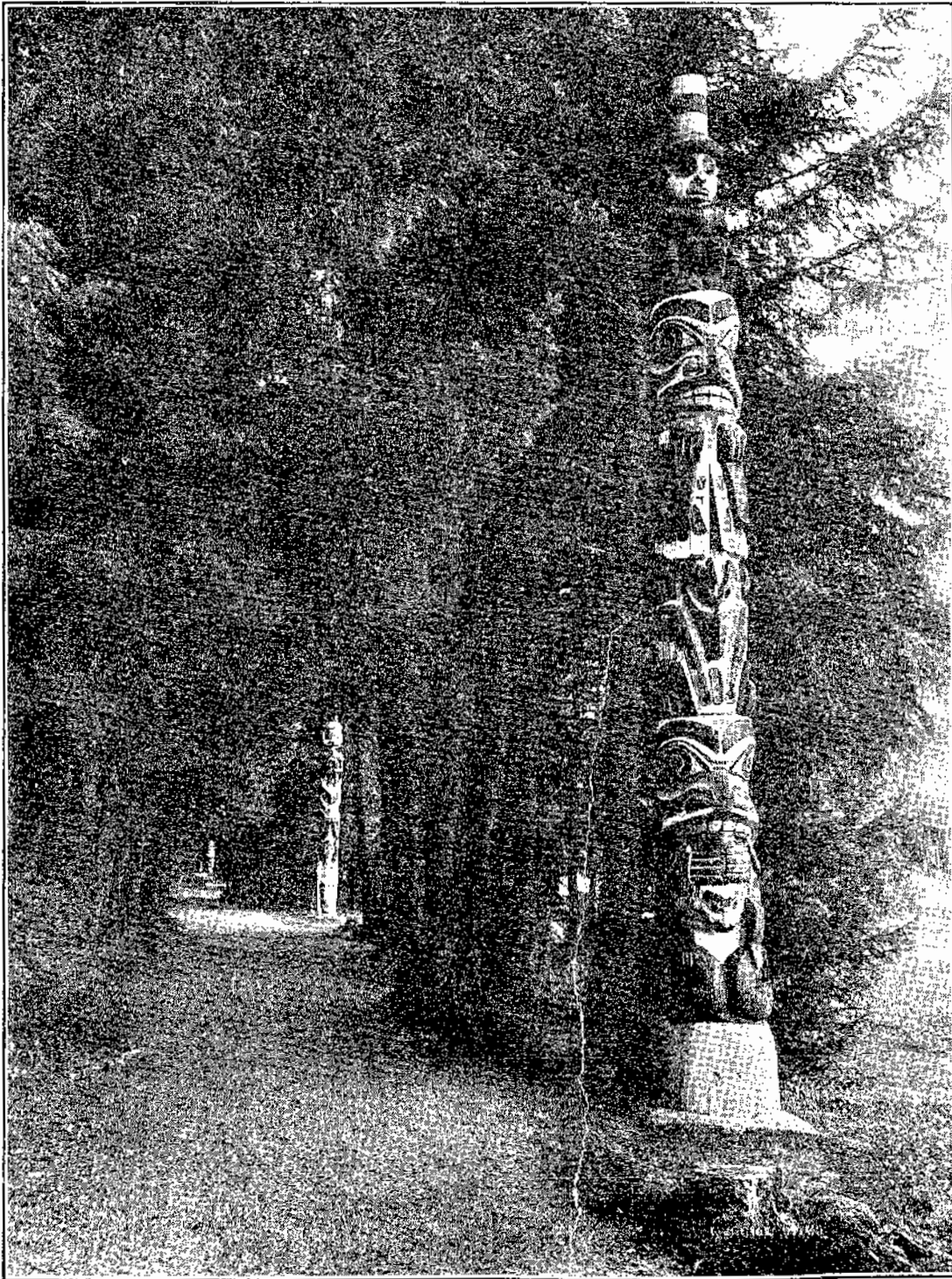
THE 1923 ALASKA TOUR

ITINERARY			
FROM	TO	MILES	VIA.
SEATTLE	JUNEAU	1020	INSIDE PASSAGE.
JUNEAU	CORDOVA	561	GULF OF ALASKA.
CORDOVA	CHILD'S GLACIER AND RETURN	125	C.R. & N.W. R.R.
CORDOVA	SEWARD	263	PR. WILLIAM SD.
SEWARD	FAIRBANKS	467	GOVT. R.R.
FAIRBANKS	VALDEZ	371	RICHARDSON HY.
VALDEZ	SEATTLE	1674	SAME AS N. BOUND.
TOTAL MILES		4461	

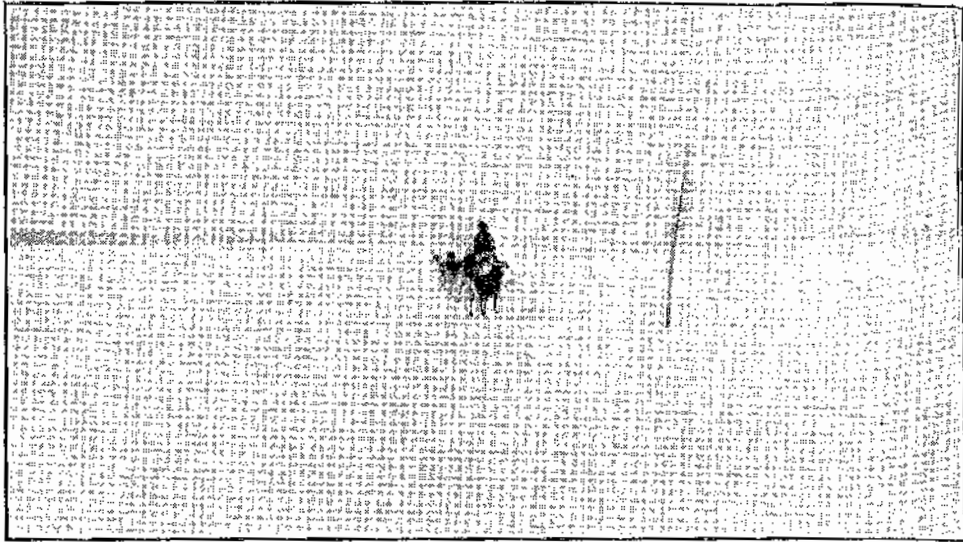
RAILROADS: ——— HIGHWAYS: ———
 WATER ROUTES: ——— TRAILS: - - - - -

To Seattle

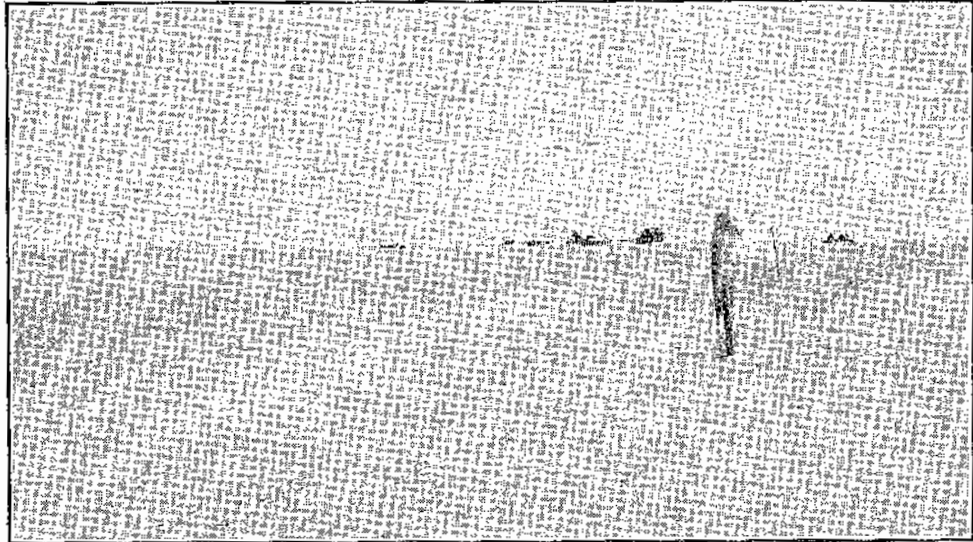




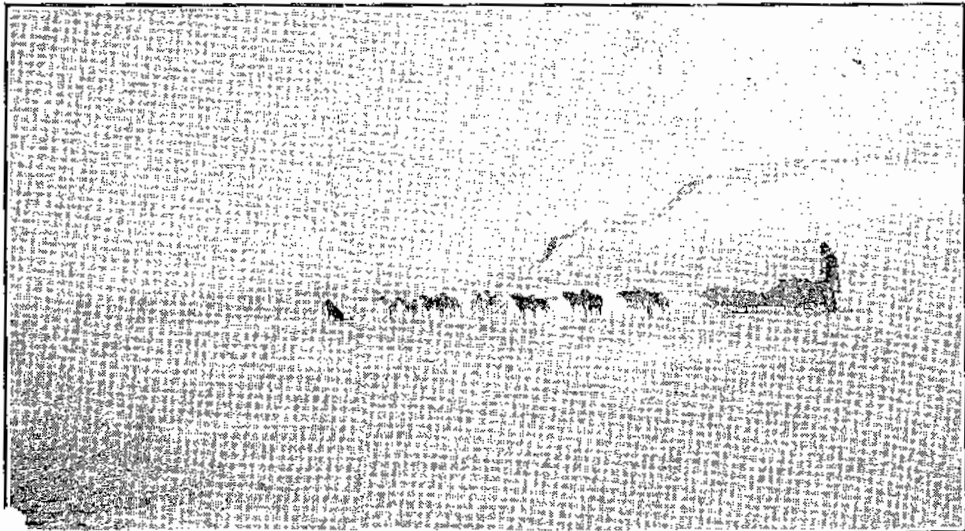
TOTEM POLES, LOVERS LANE, SITKA NATIONAL MONUMENT



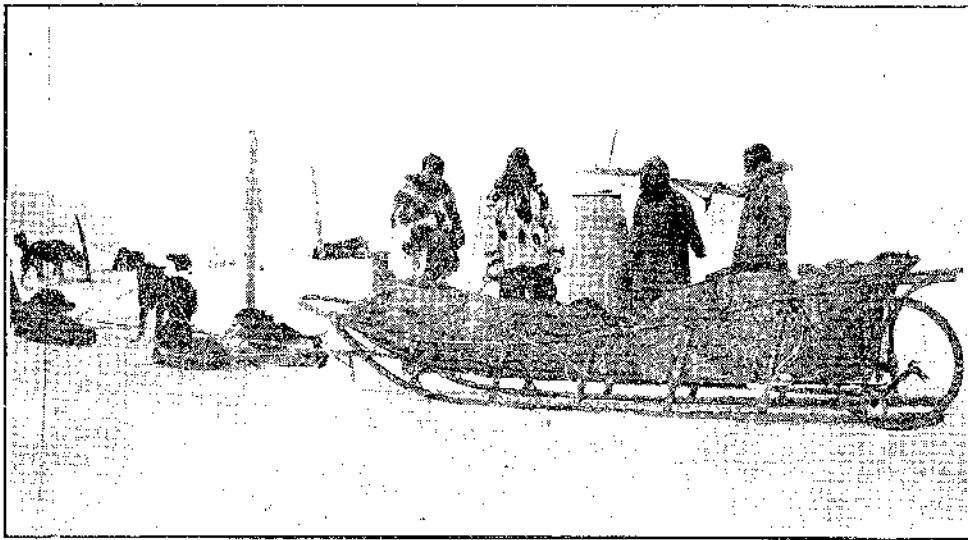
NOME TRAIL STAKED WITH SPRUCE TREES ACROSS
FROZEN BERING SEA



POINT BARROW TRAIL STAKED WITH JAW BONES AND
RIBS OF WHALES NEAR POINT HOPE



ALASKA ROAD COMMISSION SUPERINTENDENT MEASURING
POINT BARROW TRAIL



SLED, BICYCLE WHEEL AND CYCLOMETER FOR TRAIL MEASURING



SNOWPLOW IN DELTA CANYON, MILE 212, RICHARDSON HIGHWAY



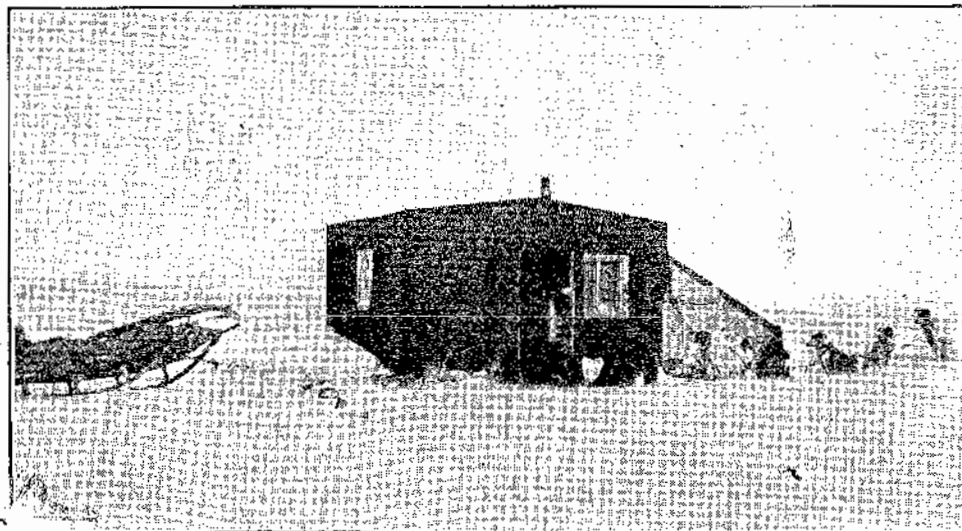
EARLY SPRING TRAVEL, MILE 218, RICHARDSON



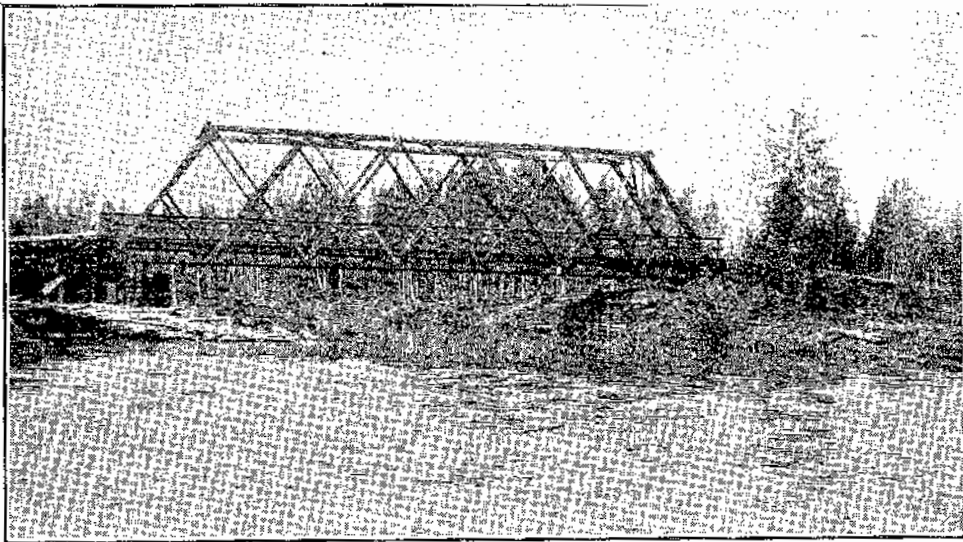
IGLOO TYPE OF SHELTER CABIN, MILE 210, NOME-POINT
BARROW TRAIL



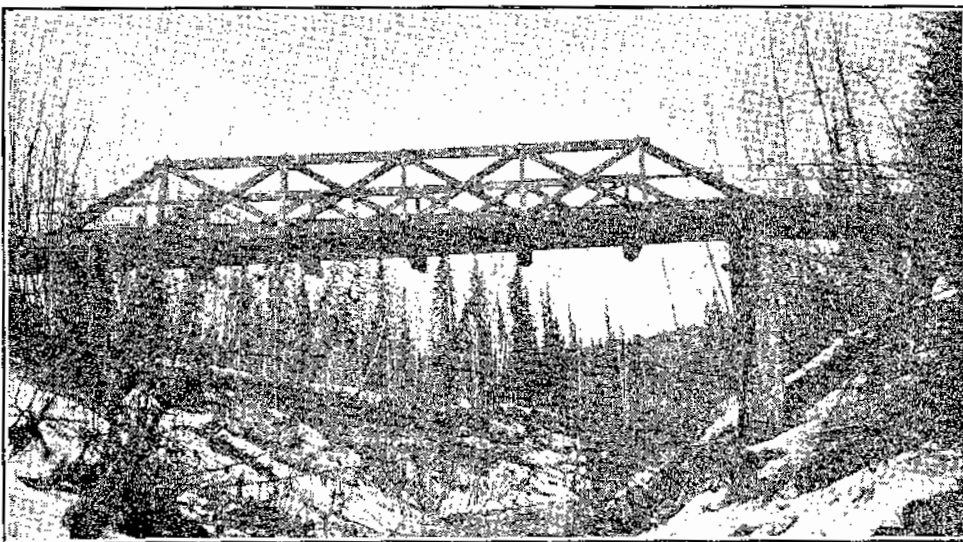
LOG CABIN TYPE OF SHELTER CABIN, MILE 264, NOME-
NENANA TRAIL



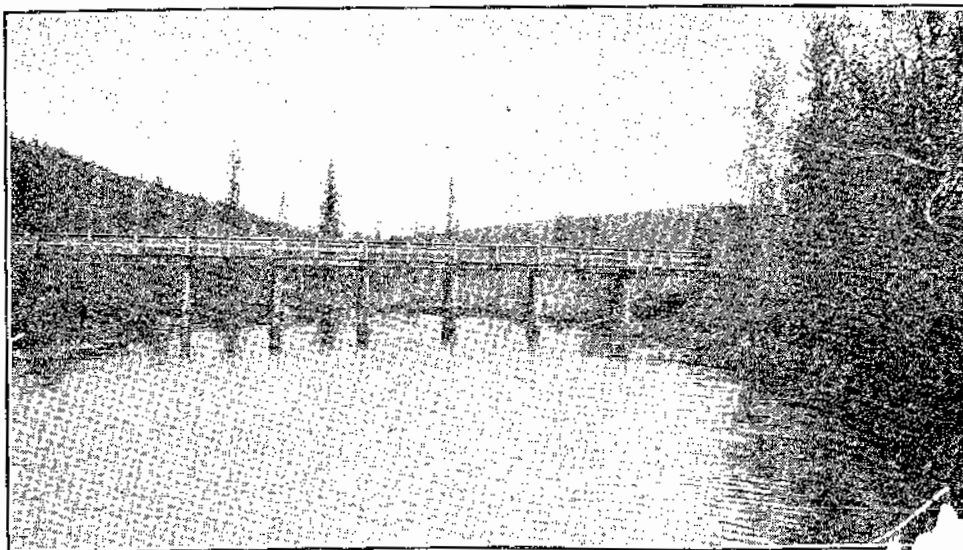
FRAMED SHELTER CABIN, ARCTIC CIRCLE, MILE 271,
POINT BARROW TRAIL



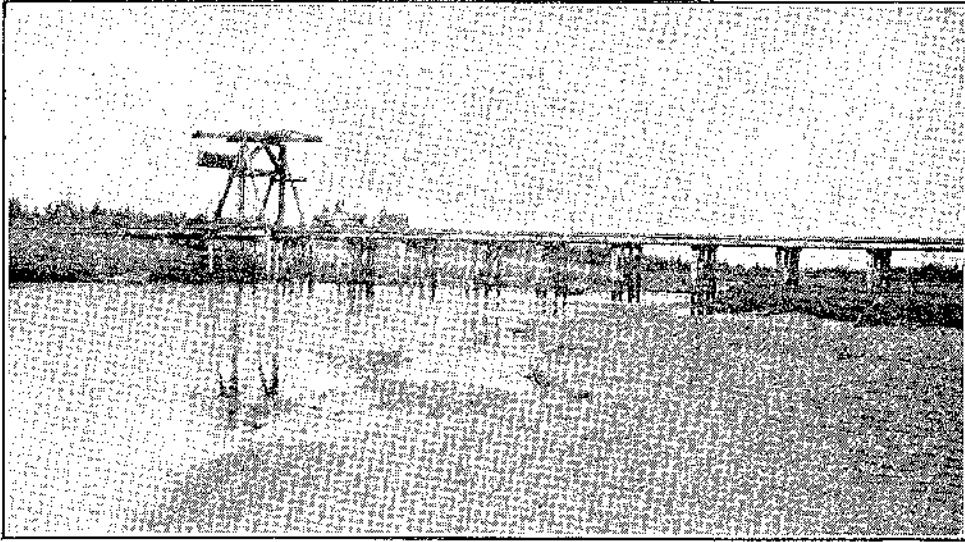
100-FOOT THROUGH TRUSS BRIDGE, MILE 348,
RICHARDSON HIGHWAY



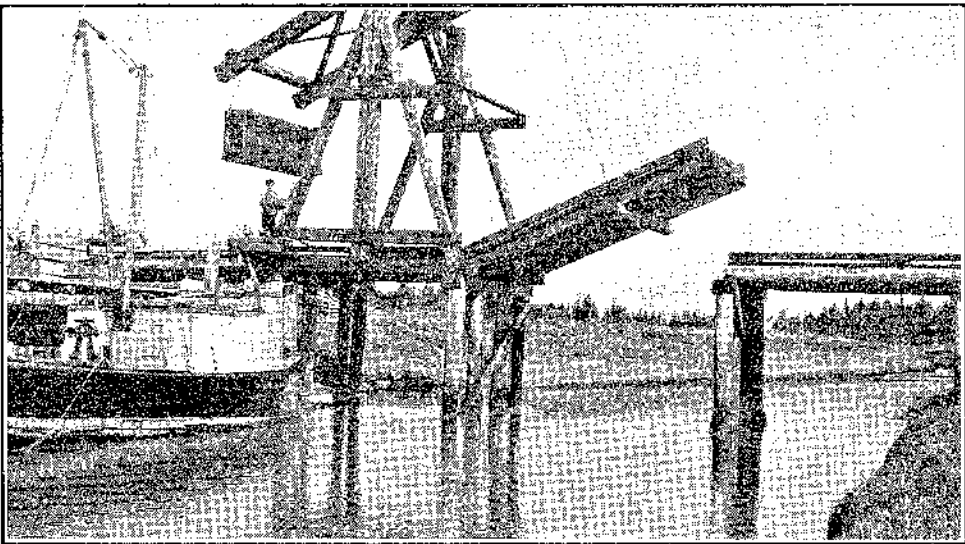
60-FOOT PONY TRUSS BRIDGE, GOLDSTREAM NEAR DUNBAR



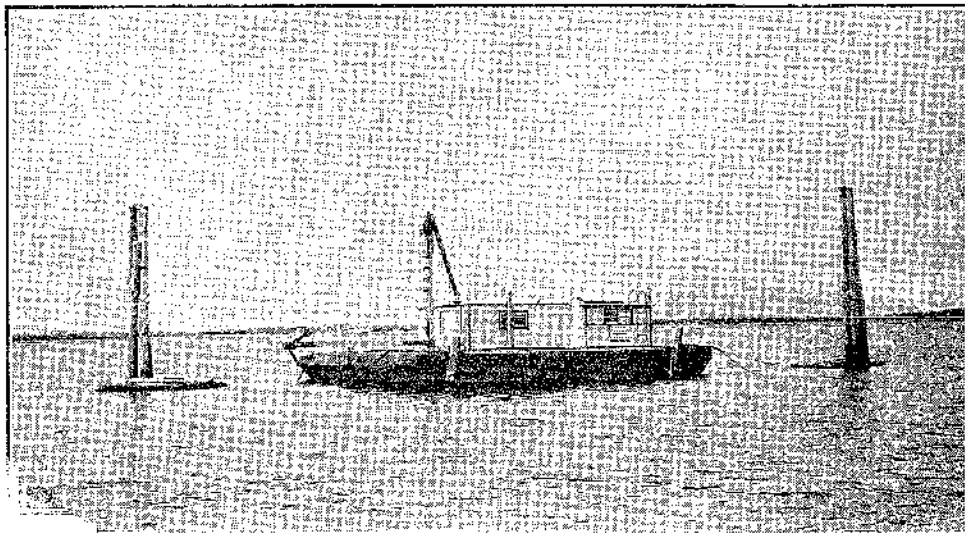
110-FOOT PILE TRESTLE BRIDGE, MILE 331,
RICHARDSON HIGHWAY



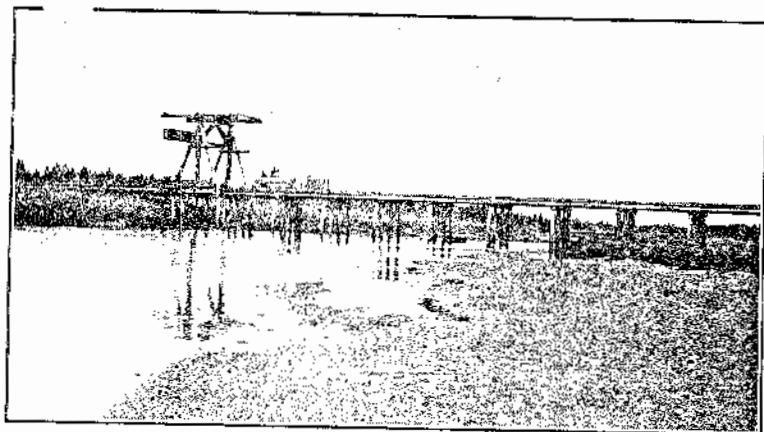
LIFT BRIDGE, SALMON RIVER, STRAWBERRY POINT



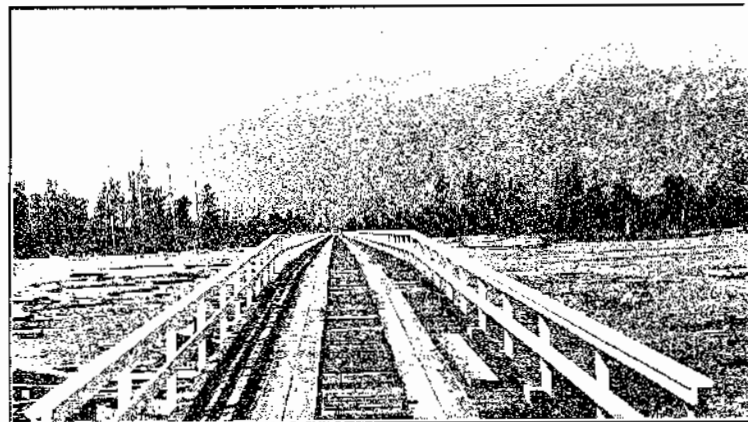
LIFT BRIDGE, GOOD CREEK, STRAWBERRY POINT



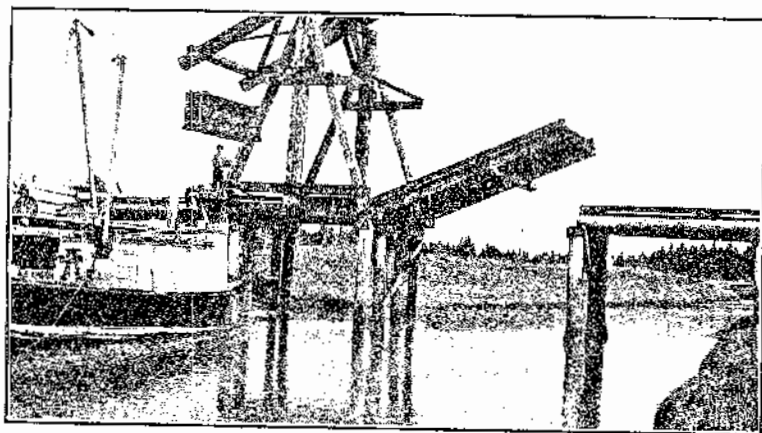
LANDING SCOW, ICY PASSAGE, STRAWBERRY POINT



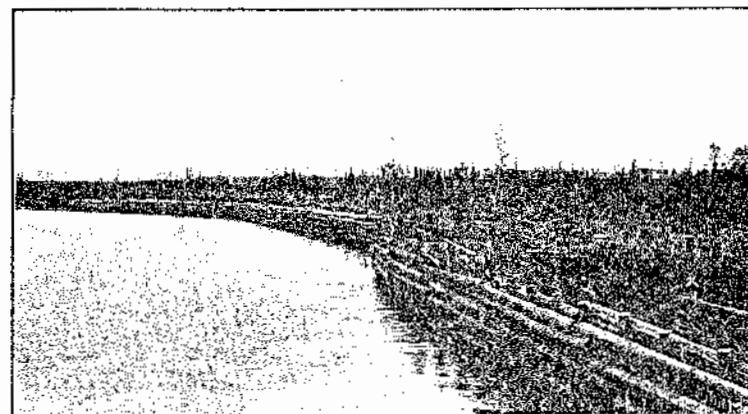
LIFT BRIDGE, SALMON RIVER, STRAWBERRY POINT



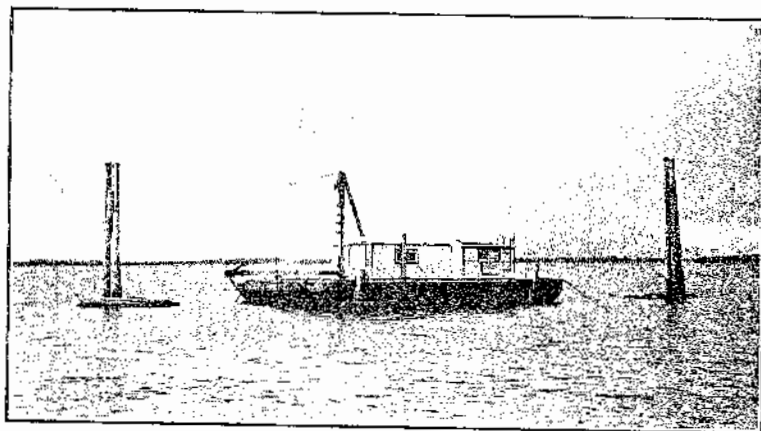
BRIDGE NO. 12, VALDEZ GLACIER DELTA (TOTAL 22 BRIDGES,
3500 FEET LONG)



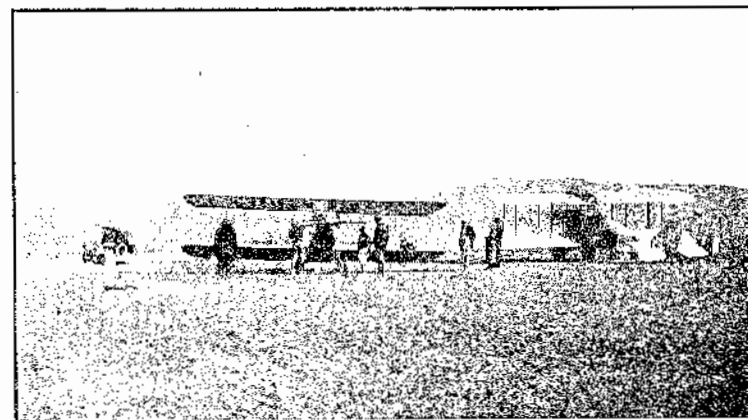
LIFT BRIDGE, GOOD CREEK, STRAWBERRY POINT



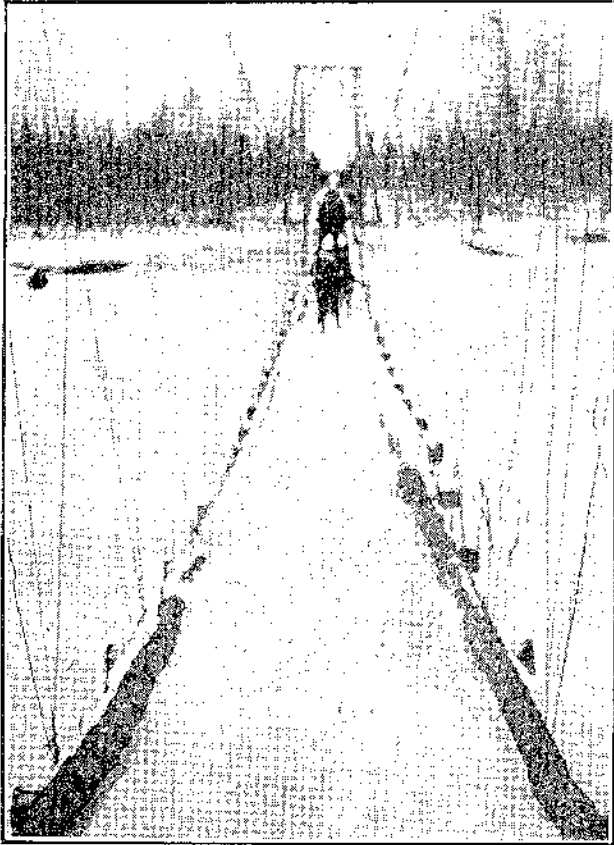
BANK REVETMENT, ABOVE SALCHA RIVER BRIDGE, MILE 330.
RICHARDSON HIGHWAY



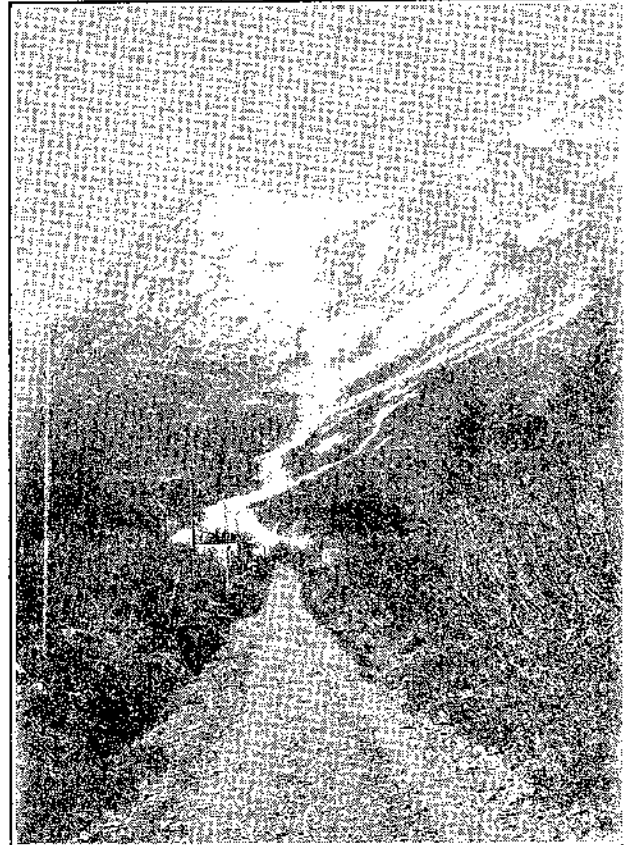
LANDING SCOW, ICY PASSAGE, STRAWBERRY POINT



NOME AIRPLANE LANDING FIELD, "FAIRBANKS NO. 1" AND
"WACO" WITH PICTURES OF AMUNDSON'S "NORGE"



DOG TEAM CROSSING SOUTH RIVER SUSPENSION BRIDGE, KALTAG PORTAGE



SNOWSLIDE GULCH, MILE 16, RICHARDSON HIGHWAY

