ANNUAL REPORT OF THE ALASKA ROAD COMMISSION FISCAL YEAR 1926

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RUPORT UPON THE CONSTRUCTION AND MAINTENANCE OF MILITARY AND FOST ROADS, BRIDGES AND TRAINS: HAD OF OTHER ROADS, TRAMMAYS, REPRIES, BRIDGES, TRAILS, AND HELATED MORKS INTHE TEARLYORY 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

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**OPERATIONS** 

BOARD OF ROAD COMMISSIONERS FOR ALASKA

7798

JUNEAU, ALASKA 1926

ALASKA DAILY EMPIRE PRINT, JUNEAU---10-4-26---500

Alaska Road Commission, Juneau, Alaska, September 15, 1928.

The Honorable, The Secretary of War Thro The Chief of Engineers, United States Army) Washington, D. C. Sir:

In compliance with the provisions of Sec. 2 of an Act of Conriess approved January 27, 1905, as amended by Act approved May 14, 1906, I have the honor to submit the attached report of the sperations of this Commission for the fiscal year ending June 30, 1996.

There were no changes in the personnel of the Commission cuting 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, 1925 for duty as student officers. They have been appointed rodmen, and given a wide variety of duties. They are living given opportunities to perform useful work and to assume her 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 nedectaken. The off-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 metion" 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 readlest 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 govermnent 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 WILL-ING 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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REPORT UPON THE CONSTRUCTION AND MAINTEN-ANCE OF MILITARY AND POST ROADS, BRIDGES, AND TRAILS, ALASKA; and of other Roads, Tramways, Ferries, Bridges, Trails and Related Works in the Territory of Alaska.

# REPORT OF THE BOARD OF ROAD COMMISSIONERS FOR ALASKA.

James C. Si	teese		.President
Lunsford E.	Oliver	Chief	Engineer
H. E. Fisher	Secretary a	and Dishursin	ız Öfficer

For description of Project Under This Commission see Part 1 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.

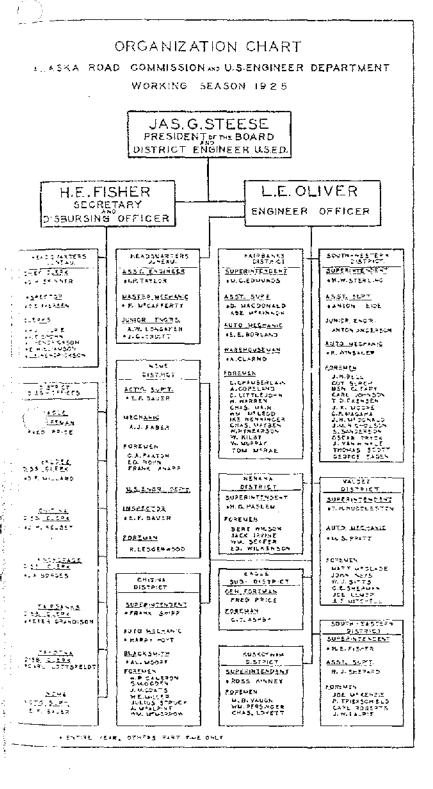
SECTION 2. That there shall be a board of road commissioners in said district, to be composed of an engineer officer of the United States Army to be detailed and appointed by the Secretary of War, and two other officers of that part of the army stationed in said district and to be designated by the Secretary of War. The said augment officer shall, during the term of his said detail and appointment, abide in said district. The said board shall have the lower and it shall be their duty, upon their own motion of boom sections, to locate, lay out, construct, and maintain wagon roads and rack trails from any point on the navigable waters of said listrict 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 hoard shall in all cases supervise the work of construction and see that the same is properly performed. \* \* \* \* \* \* \* 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, 1918). 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



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 Soction 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 persona in the District of Alaska, and for other purposes" approved January 27, 1905, as amended by the Act approved May 13, 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-uffice 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 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. 34 ton.

174 Tons Pyrotol.

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.
- I 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.
- I 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.
- 1 Jackhammers.
- 4 Levels, surveying.
- I Loader, bucket, power driven,
- 1 Locomotive, Fordson.
- 2 Machines, mowing.
- 1 Mixer, concrete,
- 4 Piledrivers.
- 54 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, % yd. steam.
- 3 Shovels, 1/2 yd. gasoline.
- 70 Sleds, bob.
- 8 Tractors, Best 30.
- 16 Tractors, Holt.
- I Tractor, Case.
- 1 Tractor, Fordson, erawler track.
- 2 Tractors, Titan,
- 1 Tractor, Yuba.
- 36 Trailers, Highway.
- 8 Transits, surveying.
- \$3 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.

Sted 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 overhanding the entire road and trail situation, rehabilitating or abandoning the projects which have fullen 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 inlenge of roads and trails constructed by the Commission during its first sixteen years of existence (1995-1920) aggregated 4.890 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 as been in disuse or practically impassable for many years and a mail mileage has been superseded by other routes or methods of transportation as will appear more in detail below.

The specific routes included in this 5,502 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 logun six years ago and now practically completed.

STATUS	<del>_</del>	MILE	AGE	
Wagon Road 1420 Report1,931	Sled Road \$36	Trail 3,223	Total 4,890	Grand Flugged Total 712 5,502
ADDITIONS:				
New Mileage 555%* Reclassified 172	5534 <u>5</u> 234 <i>5</i> 5	4,6113 <u>4</u> 65	$\frac{5,720\%}{471\%}$	5,720% 4724,
GRAND TOTAL1,758%	1,424	7,899+2	11,982 14	712 11,7941
DEDUCTIONS:				
Transferred to other Bureaus 11746 Reclassified 1836 Abandoned or dropped account duplication of routes 3446	9 205 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	4512 25212 936		172 47114
NET TOTAL1,5334/2*    Nortal Work 1926 99%     Fork 1926 1984/4     New C. Work 19261,334/2	1,68 <b>6</b> 137 949	6,671\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	9,291 1113 3,6194 6,127	712 10,003 144% 3431 <u>6</u> 3,362*4 3681 <u>5</u> 6,1951 <u>+</u>

<sup>.</sup> Includes 100 miles of trammoad.

From the above table it will be noted that the present system aggregates 10,003 miles, consisting of 1,433½ miles of wagon road, 100 miles of tramroad, 1,086 miles of sled road, 6,671½ 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 402½ miles of wagon road, 100 miles of tramroad, 450 miles of sled road, and 3,448½ miles of trail.

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

DISTRICT	Wagon Road	Sled Road		Flagged Trails	Total
Southeastern Alaska	79		õ		8±
Engle	29	115	330		524
Pethel			383		383
in (clicez	105		******		105
'Biting	21435		108		82615
Fairbanks	33534	203%	391	*****	842%
Nenana	$103^{1}_{2}$	39712	503	******	1.064
Southwestern Alaska	154%	160%	117	,	341 14
Suskokwim	52	4713	$_{2}^{1}689$	41.0797	739
Nome	25816	16	1,499	363.7	2,052
TOTALS	1,33412	949	$\frac{1}{3.8431_2}$	36875	6,49512

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

Elling of loss and their posterobusons in the resistory.	
FEDERAL APPROPRIATIONS:	5
Alaska Fund, 1905-1920  War Dept Acts, 1905-1920  Increase of Compensation, 1918-1930  U. S. Treasury Adjustments, 1905-1920  Alaska Fund, 1921-1926  Nov. Book Acts, 1921-1926	.\$ 2,155,030.92*
War Dept. Acts, 1905-1920	3,058,041.44**
Increase of Compensation, 1918-1920	. 145.20 99.930.78
O. S. Treasury Adjustments, 1993-1740	776 901.31
War Dept. Acts. 1921-1926	3,852,676.90
Increase of Compensation, 1921-1925	. 94,931.25
Alaska Fund, 1921-1926  War Dept. Acts, 1921-1926  Increase of Compensation, 1921-1925  National Park Service, 1925-1926	. 130,020.00
Total	\$10,000,617.78
CONTRIBUTED FUNDS:	
Territory of Maske, 1920	.\$ 101,184.56
Territory of Alaska, 1920 Territory of Alaska, 1921-1926 Miscellaneous, 1932-1926	. 610,590.68
Miscellaneous, 1932-1926	10,772.09
Potal	\$ 722.547.33
Total Grand Total	\$10,813,185.11
*Impluios (b. Following adimetromate)	
Appropriations	\$ 2,123,585.65
ADDITIONS:	
Receipts, from soles\$48,694,14	FG CBB FB
Repayments, voucher corrections 1,326.68	60,020.82
Total	\$ 2,173,606,47
DEDUCTIONS:	,
Disbursing officer shortage ***	. 18,575.55
Net Total **Includes the following adjustments:	\$ 2,165,939.92
Appropriations	\$ 3,055,000.00
ADDITIONS:	•
Navy Dept. reimbursement \$3,976.19	
Repayments, voucher corrections	4,267.99
Total	\$ 3,059,267.99
DEDUCTIONS:	
Disbursing officer shortage***	. 1,226.35
Net Total	
Net Total	.3 3,958,941.44
***Defaulting officer was dismissed the service by G. O. No. Washington, D. C. Feb. 17, 1912.	4, War Dept.
In addition to the above funds, disbursed throug	the U.S.
Treasury, the Commission has supervised the expend	
following funds disbursed by other agencies for road:	and trail de-
velopment:	•
••	
Road tax, labor, and miscellaneous contributions, 1905-1920	.\$ 200,900.00
Department of Agriculture, 1920 Quartermaster General, 1901-1902	202,702,67 100,000,80*
Chief of Engineers, 1904-1905	. 34.631.78*
Territorial Funds and Forest Revenues Princ in 1921	684 239 64**
Territorial Divisional Commissioners, 1921-1925  Territorial Divisional Commissioners, 1936	. 112,300.52 . 22,242.86
Seward Peninsula Transvay, 1923	. 22,242.86 . 24,014,00
Tolovana Tramway 1994	6 495 80
Mt. McKinley National Park, 1924	700,25
Kaltag Portage Survey, 1925	312,72
MISCORIIEQUE, INSO manamente prominente proprieda de la companya del companya de la companya de la companya del companya de la	8,276.25
Total	\$ 1,395,845.69
The state of the s	.taniau .

<sup>\*</sup>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 Covernment 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:

rtalend	ar	•	Telegraph an	đ	
Year		Freight	Telephone	Dockage	Total
1920	\$ 1,818.69	\$ 3,436.83	\$ 153.32	\$ 2.08	3 5,460.30
1921	1.965.55	3.714.97	432.22	266.32	6,429.06
1932	2,294.30	12,657.88	447.69	406.25	15.836.03
1923	1,021.59	25,352.23	875.23	205-97	30,464.93
1931	5.470.99	37,036.93	1,558.53	1,914.39	45,980.66
1925	4,505.57	35,652.56	1.101.98	548.60	42,198.71
	320,465.91	\$117,941,40	\$4.618.88	\$3,843.50	\$146,369,69

#### 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:

Vaissification	Mileage	Annual Maintenance per mile	Total
Wagon Roads Sied Roads Trails Flagged Trails	1,986 6,671%	\$3(4) 25 26 31	\$160,050 27,150 66,715 2,136
Totals	10,063	<b>₹</b> \$5.59	\$556,081

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 toute 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 1995 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 expanditure 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 cure 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, 1926, 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 jests, 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
April 30, 1917 Shelter Cabins
May 3, 1917 Roads, Bridges, Trails and Ferries. 400,000.00
May 3, 1917 Nizina Bridge
May 1, 1919 Shelter Cabins
May 1, 1919 Roads, etc. 375,060.00
May 5, 1921 Nizina River Bridge
May 5, 1921 Seward Peninsula Railway 24,614.60
May 5, 1921 Seward Peninsula Railway
May 7, 1921 Rosiis, etc
Mart 3 1973 Tolorana Trom 6.295.50
May 1, 1925 Roeds, etc
May 4, 1923 Shelter Cabins 15,000.00
May 5, 1923 Kaltag Portage Survey 312.72
April 30, 1925 Reads, ste 286,900.00 April 30, 1925 Shelter Cabins 286,900.00
April 30, 1925 Telephone Lines

Total appropriated to March 31, 1927 ...........\$1,884,615.23

#### Expenditures:

Expended by Territory prior to April 1, 1921	684,239.64
31, 1926	11,980.39
Supervised by A. R. C. 1921-1926	165,295.19
Cooperative with A. R. C. 1920-1926	704,334,35
Cooperative with Forest Service 1920-1926	170,882,89
Total expended to March 31, 1926\$1	,736,732,37
Balance, April 1, 1926	
Total	.884,615,21

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\$2	0,000
Chapter 61,	Aviation Field, 2nd Division	5,000
Chapter 61,	Maintenance, Nome Harbor	5,000
Chapter 62,	Aviation Fields or Scaplane Moorings,	
	3d Division	0,000
Chanter 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 G. Smith, Te	rritorial Treasur	erMember
Robert J. Sommers	Territorial	Highway Engineer

#### LOCAL COOPERATION.

For a resume 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 20, 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 appropriations of the Territorial Legislature. No Perritorial road smilding 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 Territorial Funds	101,765 66
Miscellaneous Contributions	2,319,91
Total -4	191,356.92
Divisional Projects:	
-	
Chan man, Third Division	3,282,88
Chairmen, Fourth Division	12,360,00
_	
Tetai	: 22,212.88
Special Projects:	
Shelter Cabins, Forritory, 2nd Division	2,672.98
3rd Division	3,370,63
4th Division	3,773.30
Aviation Fields, Territory, 2nd Division	2,590,60
4th Division	7,725,08
Telephone Lines, Territory	2,149,10
None Harbur, Territory	2,500.00
Sewara remusina Tramutay A. R. C. Ruma	25,049,25
Tolovana Trainroad, A. R. C. Funds	4.190.59
Nizina Bridge, A. R. C. Funds	5,576.85
Total	80,708,78
Grand Total	274,305,56

For the working season of 1925 (fiscal year 1927) the Territorial Board has allotted to the Department of Agriculture \$29,325.09 and to the Alaska Road Commission the following amounts:

Comparative Projects Shefter Cables Aviation Fields Telephone Lines Nome Harbor	8.621.34 14,773.92 1.853.85
tre d	·····
There is a second of the secon	93,749,16
Tetal Chairman Third Division	15 217 54
CESIFFIAN FORMER DIVISION	16,146,00
Grand Rotal	125,406.30

The \$8,624.84 for shelter cabins and \$2,278.92 of the funds for aviation fields have been deposited. The balance is held subject in the tail of the Federal Commission. The existing balance of \$11.431.61 in the contributed funds includes a balance of \$522.85 ivallable for further work on the Nome Wharf.

The Cooperative Road Act has worked satisfactorily under the conditions imposed. Cartainly, the amount of road work accomlished for the money expended has been far in excess of anything directoric possible. Had the Territory attempted to expend its \$30,600 per division under an independent organization, nearly onethird 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 la 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 Senais 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 togother 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

wit a comprehensive system of roads and trails, which have greatly abled development in all sections of the Territory, and has, since we 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 301 (c) of S. 3445 and H. R. 2629 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 cont and trail work to a Department in Washington, D. C., without problems 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 frature 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 regardization, under a different Department, to handle only part of the work now being handled by the Alaska Road Commission, is 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 mad 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. 50-6, 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 intendiate 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.

Dy informal arrangement, effective April 1, 2922, 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, detailing 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. We 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, trainways, ferrics, bridges, traits, and related works, now aggregating over 10,000 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 traits 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 or sorvey 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 fucilities; the survey and design for a Government wharf at Juneau; the issuance of permits for fish traps and other fructures in the navigable waters along the Territory's 28,000 mile clast line; miscellaneous inspections, public hearings and continuousles of Rivers and Harbors; improvement of Sitka National Monument; development of Mr. McKinley National Park; improvement Chilkool Barracks Water Supply; administration of Sitka National Cemetery; Lowell Creek Survey; and Nome-Shelton-Reewallk 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 Termory 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 the United States proper. With its population of about 27,000 whites and an equal number of natives it is in about the same state of development as was our great western frontier at the time that 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 totiruous chain of mountains along the coast has done much to retard the development of Alaska since it presents to the visitor forbidding and discouraging aspect and it has always greatly recessed the difficulties of access to the interior.

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

26

Reyond the valleys of the Copper and Susitua 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 fill 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 monatainous, 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 permaneutly 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 wader 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, a massible everywhere except along a sand or gravel beach along the gravel beds of the smaller streams.

Many of Alaska's streams are of glacial origin. In these the  $x_{\rm loc}$  is very cold and heavily laden with silt and the current is sty swift. Quicksand is often encountered. Such streams are tweether crossed at considerable hazard.

Maska is well provided with navigable streams which now same the same purpose in the Territory as did the rivers in the states before the construction of the railroads. The Yukon, Kuskoktum, innoko, iditaroa, Koyukuk, Tanana, Kantishna, and Tolovana myers, together with The Alaska Railroad, the Copper River and Mirthwestern Railway, the White Pass and Yukon Railway, and the Richardson Highway form main highways of commerce. From the seacoast or from points on these main highways freight is mixed still closer to its destination on the smaller streams in that fraft scows pulled by horses.

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

Foring the period from October tenth to November first and the April tenth to May tenth, as an average for the interior thirty, the streams are just freezing or thawing, movement on account of rubbing ice, the 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 that any point at which it is produced. Other minerals can be used profitably at present only at localities where railroad or trains transportation is immediately available. It follows that in 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 bobsied on a winter sled road, as shown by the table on page 30, is 37e 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 sied 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 freighter 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. Gravelling 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.

Sted roads are located on low ground, often swampy, and follow surfames or lakes whenever this is advantageous. Clearing of timber, semoval of stumps and niggerheads, construction of bridges across seep gullles and grading down of steep approaches are the general sequirements in the construction of a sled road. Winter trails for feg 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 trates are so improved.

#### COMMERCIAL STATISTICS.

A traffic census was begun by the Commission in 1912. Comtaining the expenditures for freight on each route at the present rate with the cost of transporting the same amount of freight at the lates 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 151 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 if the traffic reported upon a few typical routes for the calendar year 1925. It shows a very gratifying reaction from recent work jerformed by this Commission, and an astonishing aggregate of traffic upon traffs lying in remote sections.

In the interior, the great cost of moving freight by teaming to 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., Fere 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 domand. 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 Klendike. (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;

Winter:

Per Ton-Mile

Bob-sled (sled road) ,	0.37
Double-ender (trail)	1.30
Dog-team (trail)	6.30
mmer:	
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 back up a slippery mountain trail about 7,500 feet long to a new gold strike in a little basin at about 809 feet elevation at 4 cents per pounds, or \$80.00 per ton—over 1 cent per ton-foo!

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:

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		"Dog Sled (winter)		30	7.69231	ما
		"Steamalde and Reilroad"		2	0.64755	4
		Steamship and Rallroad accomm		3	0.07996	سلأ
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	Miller Hetaly June		40	5	2.04082	77
Cliebe and an arm and a comment		Wagnin (announce)	9.0	33	1.32940	77
Charlandton and accept a marginal	, Fighth Cheek		4.2	4	1.190470	,'= <b>'</b>
Chalmille	an Miller (Rouge) and remarkable and	Sted (whiter) the angle of the con-		1.13	H 1444614	Š
Chatrother	tireto	8ted (winter) is assumed assumed	130	15	2.36769	- :-
Senttle	Nearing and an annual an ann	Stempship and Ralfroad	2.278	발	9.94800	
Seattle	Holy Cross	Steamship and Railroad	3.001	31/2	0.02366	
Scattle	Fort Yukon	Steemship and Pailroad	2.799	3 1/2	0.02536	
		Riverboat		170	0.02213	
Nebuto	Fort Yakon		521	1½~	9.05768	<b>₩</b>
4 1 - 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1	4114-1					
		The state of the s				

Prom the state of	<b>To</b>	Method	Miles	Cost per Pound Cents	Cost per Ton-Mile	65 15
Nepaga Nepaga Bettlea That Spelaga Disabat Brooks Nepaga	Bettler Romewell AVbeugen Rumpret Brooks Teeninal	Riverbind Adverbent Herms Scow Sted (winter) Train Arrain and Bod	1,171 184 80 51½ 63	4 2 7 7 6 1 3	0.0017 0.21709 1.76000 2.71846 1.68730 1.68846 0.20268	ANNUAL I
Engle Cagle Portynile, Y. T. Fortynile, Y. T. Dawson Dawson Single Engle	Portymile Fortymile Steel Creek Steel Creek Eagle Cagle Cagle Cagle Carele Chicken Calcken Calcken Seventymile McKinley Park Kodigk Sanctuary Cache Creek Ershhouk Bethel McGrath Toitotna Nome Dralakleet Uralakleet Uralakleet Selemen Selemen Selemen Selemen	(via Savard) (via Skagway) Pack Horse (summer) Sted (winter) Pollag Bost (summer) Bost (summer) Dogleam (winter) Post (summer) Dogleam (winter) Pack Horse (summer) Pack Horse (summer) Sted (winter) Pack Horse (summer) Sted (winter) Sted (winter) Steamship	1,509 60 60 45 46 100 190 190 50 60 60 190 190 50 60 60 60 60 60 2,214 2,183 21 44 2,183 21 44 2,183 3,940 3,5621 207 144 133 33 33 38	4 4 15 6 10 2 8 15 15 15 15 25 15 15 15 15 15 15 15 15 15 15 15 15 15	0.02002 0.04976 5.00000 4.44444 0.8888 0.10000 1.60000 0.07868 1.67896 5.55555 3.33333 5.00000 2.00000 0.09804 0.01852 0.09779 1.78000 1.44000 0.62246 0.03134 0.61126 0.19888 1.81288 1.21212 1.21212 0.297777 2.46913	REPORT ALASKA ROAD COMMISSION.

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				Cost per	
		•		Pretriid	Cost per
<ul> <li>40%</li> </ul>	one Pe	Method:	M.4ms	Cents	Ton-Mile
None	Conned to Conned the Connection of the Connectio	a. Horsetegen: (sammer)	. 81	G.	1.45148
None	and the contract of the contra		. 228	25	2,19298
Nonne	And the comment of th	Cas Boat (summer)	360	- g	0.:1111
Nonig		Dog eatr (whiter)		30	2,28664
Nome				134	0.08333
		Dogniobile (summer)		10.78	2,34558
		Gas Car (summer)		*";	0.46512
		white bottem (white)		เอ็	5,2222
		Doglest (while)		10	3.32608
Nonce	Toller	Che Cont (sunage)	11 (12)	-	
Nonce	Entrafero	Sortean (willer)	. 194	. %	9.14564
None	L'adamie	Admin the Committee of	., 310	<b>Ģ</b> □	31.22581
	The state of the s	Gris Bost (Smurge)	. 320	17%	0.11719
Nonie	All Market and	Degtenn (winter)	. 272	30	2.20688
The House	The control of the co	Gas Bent (summer)	., 130	1	0.45385
KILMAR	The second secon	Dogrema (winter)	. 74	10	2.76270
AC MI	course of the contract of the		21000	311	2.00000
St. M.	chart a management management body. Cross	Riverbent (summer)	. 350	. 3	0.41420
		, , , , , , , , , , , , , , , , , , , ,			

ANNUAL REPORT ALASKA ROAD COMMISSION.

## TRAFFIC CENSUS

District	No. Routo	Station	Period 1926	No. of Persons	Autos	Wagons	Sleds	Pack Horses	Ton- inge
	Camp3A&B	Wells		7091	2191	27	148		. 297
EAGLE									
high-stationty	Allenania		amana lunes bee,	1490		78	436	381	281
agle-Seventymik			Oct,-Dee.	325	***	14 + 4 +	100	25	87
	ien111	Jack Wade		232	1.14444			237	10
	er's Fork11D&G			155			1 - 4 5 1 5 4 4	168	_3
	31L	Franklin		<u> </u>	11770-14	*******	29	215	78
agie-Circle	53		NovDec.	50		******	28		i G
	CrossingGUD&E	Chicken	June-Sept.	261	********	14+11+4		86	U
CHITINA									
hitima-Valdez-Fö	airbanks	Chilina	JnnDec.	2097	982	72	479	Ģ	1274
FAIRBANK	s	•							
alrhanks-Chiting	-Valdez	Richardson	May-Nov.	3111 5	1171	67			430
drbanks-Chitina		Grundler Ferry	May=Oct.	2149	854	4		*******	240
	s Creek	Mechan		375	97	32	26		157
Linore-Pairbank	s Creek 7C	Mechan		108	1	****	43		72
alrhanks-Chena	Hot Springs 7J	Colorado R. H		310		diament)	3.55		131
	15&16	Miller House		1123		136	315	5	139
	15&16	12 Mile 14 H		174		bb1:411+	198	******	40
	2313	Beaver		75		2	37	14)	27
frele-Ft. Yukon	53A	Ft, Yukon manana		150	7418711	***-***	68	********	14
randler-Tanana	Crossing55F	Grundler	htmApr.	108	4141444	******	00	91794111	14
NENANA	•								
ampart-Bureka	9	Rampart	lune .	49		1	rrth : :-	r-41****	1
ubl-Dhinnond		Robi		76			65	******	12
enana-McGrath	4110-P140-40-14110-1411-1411-1	Knight's R. H		399		********	275		30
aby-Poerman	38A&E		Jan. Dec.	610	. 58	48	239		155
			May-Dec.	205	Herbases	46	25	411	21
SOUTHWES		_ ~	<b>2000</b>						-
		Fishliook	f	57			36		30
			JanDec.	3646	937	46	316		1112
			JanDec.	2591	258	156	98	78	140
	35Fī	TREBUIL		aca.	200	740	•	*	140
	Jatanuska35J	Wasilla	Jan,-Dec.	4349	394	359	181	53	259

filstr (1	Route No. Str (lon	·	Period 1976	No. of Percent	Acton	Wantons.	Slocia	15 ek Horser	nante.
McKludey Park Road (Rinnas Bay-Harina Talkectin -Cache Creek Kenal-Russian River Anchorage-Lake Separd Cantwell-Vaidez Creek Kanalak-Beelarof Lake KUSKOKWIM	48 Historia 51 Mouse Cr 55 Cooper's 76 6 MHe R Spenard 76 Cantwell	teck	Mnr, «Oct. lan. «May lan. «Dec. lan. «Nay. lan. «June lan.	307 542 409 574 7509 921 40 838	3213 205 27	2	175 74 190 113 43 35 19 88	£10	411 18 201 28 100 518 2 72
Tokotna-Piat Piat-Moose Creek Candle Creek-Tokofun lellared-Plat Plat City-Plat Creek Plat City-Plat Creek Plat City-Otter Discovery Ophir-Tokotna Poorman-Ophir Ganes Creek Road Crieple-Cripple Mr. McGrath-Tokotna Mactanth-Candle Creek Tokotna-Twin Peaks McGrath-Nixon Mine Tokotna-Nixon Fock NOME		rrek Jeck J	May-Ney, May-Cel, miDec, imiDec, ami-Dec, ami-Dec, ami-Dec, ime-Oct, ami-Dec, lovi-Dec, lovi-Dec, May-Cel, uno-Oct, day-Oct, day-Oct,	95 44 61 700 600 800 600 - 257 30 473 86 528 80 538	130 100 90 40 89	269 40 30 100 30 182	300 100 56 40 40 373	36 34 30 30 15 70 54 6 25	799 1755 125 325 70 241 29 5
Nome-Council Nume-Teller		,	nne-Cert, em-Desi	200 280	75	49	156	PM-14-17	29 17

₿£. ;

## SUBSISTENCE COSTS

Location	Av. No. Men Crew	No. Days Worked	Cost per Day per man
Valde	District		
Richardson Highawy			-
Miles 6-18 Miles 15-42 Miles 55-65 Miles 75-39 Miles 85-00 Cakona	28 20 24 21	157 199 102 121 73 110	1.50 1.59 1.42 1.45 1.56 1.89
Mineral Creek	ý	147	1.71
Chitin.	a District		
Richardson Highway			
Miles 24-39* Miles 114-122 Miles 155-175 Miles 260-268 Miles 210-223 Me-Carthy-Nizina	20 18 27 27 18	87 161 191 141 194 83 from Valde	1.71 1.74 1.86 1.53 1.66 2.43
Richardson Highway	iks District		
Miles 233-250* Miles 233-249* Miles 325-234* Miles 339-245* Fairbanks Fox Summit Cleary Chatanika Benver Circle  *Milesge from Valdez.	15 15 14 25 8 8 20 40 10	132 104 143 168 119 92 95 122 150 171	1.53 1.87 1.97 1.61 1.86 1.71 1.68 1.75 1.84 1.83 2.75
Nenan	a District		
Hot Springs Ferry Long Southwes	10	160 137 112	2.19 2.07 1.83
		•	
Anchorage Wasilia Talkeetna McKinley Park Homer Iliamna Kodfak Nuka Bay	17 17 26 28	153 174 171 278 185 100 164 182	1.93 1.67 1.87 1.94 2.37 2.54 2.34
Kuskok	wim District		•
Tokotna		125	2.47
Eagle	Sub-District		
Fagle	10	110	2.19

Property of District Library 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 thases or periods.

The first was that covered by the period of time during which extern Wilds P. Richardson, U. S. Army, Retired, was President the Commission and extended from 1995 to 1917. This was essentially a period of pioneering. While this period covered hearly all the stampedes into the Territory, settlements and traffic thes of communication were very unsettled. With small but intuiting appropriations, the pioneer development of the Territory as 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 Valdez to Chitina to Fairbanks, was located and improved for heavily the entire distance so as to provide for wagon traffic. By 1907 it was passable throughout for dog-teams; by 1910 for a light projectiawn 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 if the so-called War Period, 1917-20.

This second period was one of general stand-still for the work if the Road Commission, as well as industrial development within the Territory. Appropriations were small, expert personnel was the available for supervision, prices were high and labor scarce. The work was applied to a few projects only and much of the tiletime established in the previous period went into disrepair or almost entirely passed out of existence. During the last two years I this period, appropriations were reduced to \$100,000 per year. This period closed with the organization of the present Commission 1920.

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

Fairbanks in 1923. Federal appropriations increased from \$350,000 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:

	MILIBAUL.	L DESISTING	SYSTEM		EXISTENCE 1780	MOCTS	A V 101	AGR PER	M1176)
District	Ruids	Sled Ronds	Trails	(a) Mainten- anco	(b) Improvement	Total	150mils	Sled Reads	Tralis
Southeastern Sediel Starie Zallez Zallez Mitina Zarbanks Senana Southwestern Cuskokwim	29 105 % 220 % 404 % 146 9 121 %	173 200 ½ 446 183 47 ½ 27	970 970 988 346 400 269 1,150% 2,457	\$ 23,750 4,850 13,000 34,000 96,000 48,000 05,000 29,360 98,400	\$ 29,000 10,000 180,000 145,000 125,000	\$ 43,750 4,850 28,600 214,000 241,000 46,140 65,000 49,000 98,400	\$ 658 539 3,933 1,978 620 900 909 557 505	25 26 26 10 25 25 18	\$10 5 8 30 10 6 11 4 5
Total	1,5331/4	1,086	6.671½*	\$542,000	\$500,000	\$1,042,000	ş 638	\$21	\$ G
District		(c) Approved Projects Alrendy Inder Way		CONSTRU- (d) Approved Projects Not Yet Started	(e) Nev Troje Idkety Devel	w ets r to	Tolal	ሞ (u)	hand otal of Junites (b) (c) and (c)
Reffiel Eagle Valdez Shiting	201 201 201 201 201 201 201 201 201 201	100,000 240,000 66,000 66,000 10,000	ra este in Listin acción.	\$00,000 105,040 100,040	\$	00 00 00 00	186,606 440,300 165,303 215,600 40,900 120,000	:	43,750 14,850 33,090 144,000 101,000 703,000 805,000 280,000 218,400
		\$475,000		<b>\$575,000</b>	\$100.0		\$1.150,000	\$2,	192,000

\*Exclusive of 712 miles temporary flagged trails.

0.2

## 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	Amouni Estimated	Amount actually Appropriates
First (1922)	1921	\$ 955,600	\$ 425,000
Second (1923)	1922	1,200,606	465.000
Third (1924)	1923	1,500,000	65#,000
Fourth (1925)	1924	1,600,000	780,000
Fifth (1928)	1925	1,400,000	900,000
Total for first 5 years		\$6,655,000	\$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 Mainteance of Existing Routes 9,736 miles @ \$542,000 per year\$2,710,000
(b)	For improvement of Existing Routes to the same standard throughout
(e)	For Completion of Projects already Undertaken 1,735,000
	For Completion of Projects already Approved but not yet Undertaken
(e)	For Completion of Projects likely to arise with Development during the 5 years
	Total for five years\$9,969,000 Less Alaska Fund and Territorial Contributions (estimated) 960,000
	Net Federal Appropriations 30 000 000

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 9.736 miles of the existing system are described to detail under the different district reports herein.

item do. 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 Pairbanks System. Circle System. Beaver-Caro. Knik-Willow Creek. Wasilla-Matanus-ka. Anchorage System, Roosevelt-Kantishna, 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 2,461 miles of winter trails on the Seward Peninsula requires permanent staking or tripoding.

Here ic. 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. 1734 miles of new construction estimated to cost an rerage of \$10,000 per mile, including maintenance of completed cliens during the construction period, will be required. The following routes are included:

	Miles
Rodiak-Abbetts-Mill Bay	- 62-5 37
Gulkena-Chistochina	\$7
Fairing kartings	\$ S
Valkeema-Cache Creek	29
Other-Takoens	ŝ
First-Prormati	I.
Elagia-Fortymale	39
Homer Spit	3

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:

	77,162
Willow Creek System	80
Neme Dent Trainway	12
Inmachuk-Candle Tramway	30
Teering-Inmediate	<u>:</u> 3
Wiseman System	2.2
Hantishna-Park Boundary	S
Fairbanks-Chang Hot Springs	94
Tota!	3

Item (e), Completion of Road and Traft 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-Tetling.
Chistochina-Slate Creek.
Chistochina-Nabena-Chisana.
Chitina-Kotsina.
Katailu-Yakatogo.
Kenai-Homer.
Hiamna Lake-Lake Clark.
Talkecton-Iron Creek.
Lignite-Kantishna.
Flat-Georgetown.
Alatna-Shungnak.
Tuluksak-Bear Creek.
Takotna-Nixon Forks.

Distributing the above work over a five-year period in each 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 1927 1928 1929 1930 1931	Working Season 1926 1927 1928 1929 1930	(a) Maintenance* Existing Routes \$ 850,000 350,000 250,000 350,000 350,000	(b) Improvement Existing Routes \$ 600,000 500,000 500,000 500,000	(eg) Completion approved projects afready underway \$ 610,080 475,000 100,000 100,000
Fiscal Year	Total Working Season	S1,750,600  (d)  Construction approved projects not y=t underway	\$2.690,099  (e)  Construction new projects filtely to develop	\$1,735,000  Total of estimates (a), (b), (c), (d), and (e)
1927 1928 1929 1930 1931	1926 1927 1928 1929 1930	\$ 299,000 575,000 550,000 800,000 65,000	\$ 100,000 200,000 200,000 350,000 485,000	\$1,756,600** 2,696,696 2,696,690 1,750,600 1,500,600

<sup>\*</sup>Exclusive of Alaska Fund and Territorial Contributions for maintenance estimated at \$192,000 per year.

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 Covernment Railroad, now completed and operating at a deficit of 11/4.

<sup>\*\*</sup>Appropriated f.y. 1927, \$900,600.

millions annually, but the development of Alaska as well. The above amounts can be profitably and economically extended 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:

$\mathbb{A}_{N}$	DOX.
	Баре
Kantishna-McGrath-Iditarod	
Cache Creek-Rainy Pass-McGrath	250
Fairbanks-Ruby	300
Poorman-Ophir	125
Ruby-Nome	375
-	
Total	1.430
Estimated First Cost \$15.00	0.000

## 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 Tazana 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 food, later as a summer wagou road and winter bob-sled road, and

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 hegan 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 ent-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 the actual costs, no adjustment being made for early mileage abandoned or superseded in favor of the present route:

VALDEZ-WILLOW CREEK-92 MILES

****	77.12.4077 011		
Fiscal Years	Construction	Maintenance	Total
1905-1909	\$ 10,888.15	\$ 94,140.25	\$ 104,478.40
1919-1920	49.661.85	473,600,48	523,268,33
1921-1926	423,707.43	220,800.00	644,507.43
Total	.3 483,707,43	<b>\$ 788,546,</b> 73	\$1,272,254.16
Average p/mi,	5,257.60	8,571.16	13,828.85
Average p/m, p/yr		389.64	628.58
***			
		180 MILES	
	Construction	Maintenance	Total
1905-1909	\$ 60,609.00	\$ 126,290.65	\$ 186,899.65
1910-1920	. 295,009,00	702,949.46	997,949.46
1921-1926	558,993.68	X24,000.00	877,993.68
		1. <del>122 1.1</del> 111	·
Total	.\$ 909,593.68	\$1,153,249.11	\$2,062,833,79
Average p/mi	5,053,30	6,406.89	11,160.19
Average p/mi. p/yr		291.22	520.92
BARAS	~ 24100401	'A 400 NIII E6	
	-	S138 MILES	
Fiscal Years	Construction	Maintenance	Total .
1995-1909	\$ 34.243.40	3 83,707.10	\$ 117,950.50
1910-1920	165,156.60	457,743.16	822,899.76
1931-1926	456,617,73	198,720.00	655,887.73
Total	.\$ 656,017.73	\$ 740,170.26	\$1,396,187.99
Average p/m	4,753.75	5,868.55	10,117.30
Average p/mi. p/yr		243.80	459.88
TOTALS FOR R	ICHARDSON	HIGHWAY-410 MI	LES
Fiscal Years	Construction	Maintenance	'Total
1905-1909	. \$ 105.181.55	\$ 304.138.00	\$ 409,319.55
	509.818.45	1,834,290,16	2.144.117.55
1910-1920 1931-1926	1.434.318.84	743,520,00	2.177.838.81
Total	.\$2,019,318.84	\$3,681,957.10	\$4,731,275.94
Average p/mi	4,998.34	6,541.86	11,539.70
Average p/mi, p/yr Average p/mi, p/yr	4,998.34	6,541.86 <b>297</b> .33	11,539.70 524.53

## 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:

N.	liles
Heavy Gravel Surface	227
Light Gravel Surface	40
Natural Gravel or Broken Rock Roadbed	
Unsurfaced (to be surfaced)	66
	410

All bridge structures have been overhanded 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 YES	ARS		Annually
	1927 \$ 20,000 125,000	9 8 30,600	1929 \$ 36,890 81,750	Total \$ 86,500 316,750	Thereafter \$ 45,000 
Chitina-Rapids 180 Miles	•				
			$\substack{72.660 \\ 168.000}$	212,090 498,000	54,000
Rapids-Fairbai 138 Miles	nks				
	40,00		55.200 $46,500$	143,269 236,569	41,000
Total Mainten Total Constru			$\frac{164,000}{298,259}$	$\substack{443,009\\1,951,259}$	140,656

#### 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 development, 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 1918 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 521 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 bobsleds, 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

Maintenance       \$ 10,000       \$ 15,000       \$ 15,000       \$ 40,000       \$ 15,000         Construction       15,000       20,000       \$ 15,000       \$ 15,000       \$ 15,000         Chatanika-Willer H.       89½ Miles         Maintenance       10,000       20,000       30,000       60,000       60         Construction       175,000       170,000       30,000       375,000          Miller-Hause-Circle       43½ Miles	Fairbanks-Ch	atanika	FI	SC.	AL YE	lrs.			Annually
Construction 15,000 20,000 35,000  Chatanika-Miller H. 89½ Miles  Maintenance 10,000 20,000 30,000 60,000 60  Construction 175,000 170,000 30,000 375,000  Miller-Hause-Circle 44½ Miles  Maintenance 1,500 5,000 10,000 16,500 16	30 Miles		1927		1928		1939	Total	Thereafter
89½ Miles  Maintenance 10,090 20,000 30,000 60,000 60  Construction 175,000 170,000 30,000 375,000  Miller-House-Circle 44½ Miles  Maintenance 1,500 5,000 10,000 16,500 16				\$		\$	15,000		\$ 12,060
Construction 175,000 170,000 30,000 375,000  Miller-Hause-Circle 44½ Miles  Maintenance 1,500 5,000 10,000 16,500 16									
Miller-House-Circle 44½ Miles Maintenance									60,000*
44½ Miles  Maintenance	Construction		75,000	1	79,460		39,990	375,000	
Construction 45,000 140,000 185,000	Maintenance		1,500						15,960
	Construction				45,069	1	L40,000	185,000	

<sup>\*</sup>For the first five years to provide for additional graveling,  $\S 30,090$  annually thereafter.

## DETAILED OPERATIONS BY DISTRICTS.

The nature of the construction work varies from primitive pioneer craising 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 is own forces. A few small contracts are let. In the general case to 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 21d 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 exection 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.

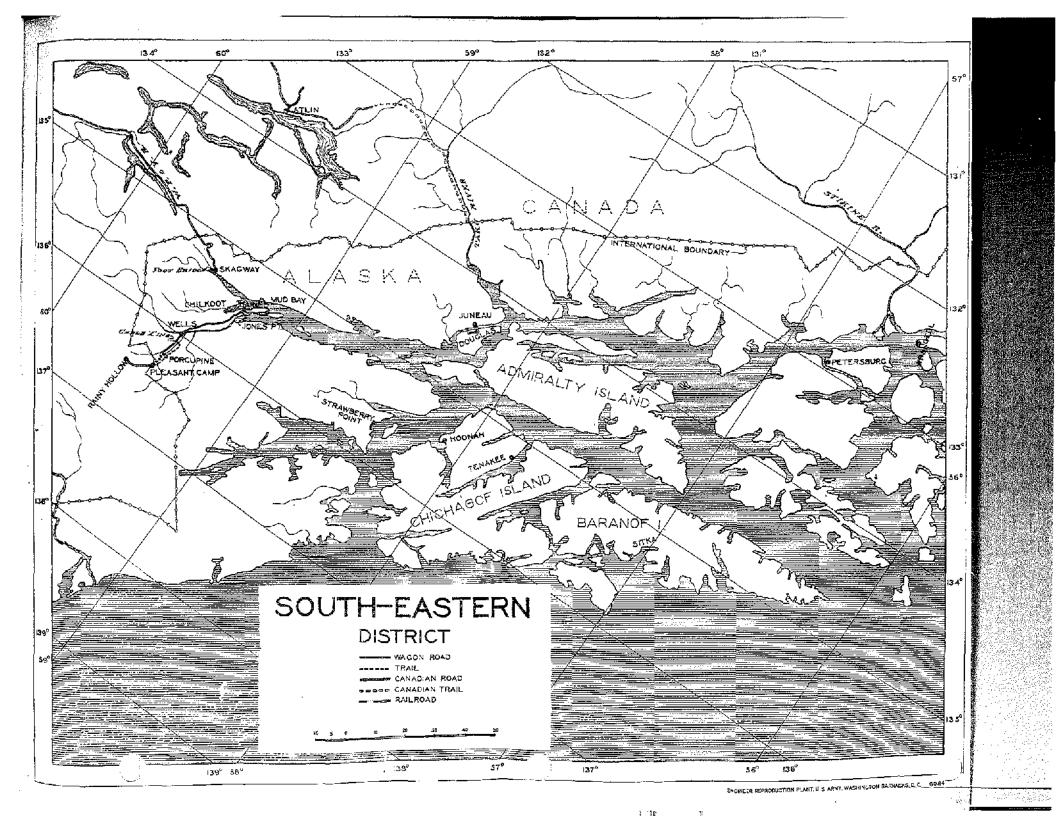
The President of the Commission has general charge of the operations of the Commission, conducts hearings, investigates new projects, allots available funds, and approves and certifies, on behalf of the Commission, all vouchers and expenditures. He spends a majority of his time in the field keeping in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



## SEATTLE, WASH., ENGINEER OFFICE.

By informal arrangement, the District Engineer, U. S. Engineer perpertment. 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 makery, to small tools, office equipment, and stationery. Some of the larger items during the year include the following:

Hay	413.8	tons
Oats	332.5	tons
Potatoes	47.2	tons
Sugar	26.4	tons
Figur	522.	barrels
Lumber	168,780	board feet
Metals enlyerts	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:

Macal Tear	Cost of Supplies Purchased	Seattle Office Charge	Per Cent
1935	3189.247.59 192.082.76 249.935.06	\$ 8,048.17 3,933.91 8,617.97	1.67 2.05 1.46
		\$10,630.05	1,71}

## SOUTHEASTERN DISTRICT.

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

R. J. Shepard, Asst. Supt., Haines to Dec. 81, 1925

This district embraces all the territory cast of the 141st meridtic, the so-called Panhandle.

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

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-				
Proje	et .	Wagon		Total
No.	Name of Route	Road	Trail	Miles
3A	Hairés-Wells	241-5	B1-b	2416
$^{3}B$	Pleasant Camp Extension	1710		17-%
3C	Porcupine Extension	20	****	20
3D	Haines-Mud Bay	10		10
3E	Haines-Chiikoot	8	•	$\frac{10}{8}$
144	Sitha National Monument		2	2
14B	Sitka National Cemetery	2 <sup>1,2</sup>	****	36
$\pm 0$	Douglas-Castineau Channel	2		2
44A	Skigway-Smuggier's Cove		3	3
61	Good Creek-Salmon River	110	****	1₩
			_	
	Totals	79	5	84

#### SUMMARY OF EXPENDITURES

Sub-Pro Numb		Territorial	Construction	Maintenance	Total
$3\Lambda$	8 6,845,11	3 1,200,50	\$ 2,060,00	\$ 6,025.14	\$ 8,085.14
3B	21,746.19	29,435.50(a)	35,061.69	5,120,00	41,181.60
\$C	10,00	15.40		25.00	25,00
3D	111.75	159.00	****	261.75	261.75
3E	4	64.50		64.50	\$4.5D
14A	619.64	962.91 (b)	300,00	1,272,65	1,572.65
14B	531.82(e)	259.90	<b>150.0</b> 0	631.82	781.82
40	1,792.16	1,260.00	2,193.16	800,00	2,992,16
44.4	358.80	260.09	***-*****	553.89	558.80
\$13	693,32	1,160,90	1,493,32	300.00	1,793.33
	Potals 332.649.32	\$24.577.01	\$42,167,17	\$15,059,66	\$57,226,83

- (a)—Includes \$415 from sale of Territorial property.
   (b)—Includes \$562.01 contributed by the National Park Service.
   (c) Includes \$259.11 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 Shagway River is crossed by means of a 175 foot suspension bridge.

## OPERATIONS DURING YEAR

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

30-Construction of this road was completed to the Canadian boundary. 512 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 12 miles. The length of this route is 17 ½ miles.

14A-1 footpath was cleared along the park boundary. Additional gravel was placed on footpaths and all totem poles with one endotion were painted and repaired. The gravel till approaches to the Indian River foot bridge were completed. The beach was thated of all debris and the grounds kept in a near condition.

MB-The boundary was cleared and marked. Additional gravel was placed on lootpaths.

\*\*\*O-AC bridges were repaired or renewed. Additional drainage was provided, brush cleared from sides of roadway and the entire state surfaced with gravel.

Et—The contrast to ditch and grade the road was completed. Interest ditches were dug along both sides of the road and the material (meed in the roadway, providing a sufficient grown for good drainage.

The landing float was provided with new anchor cables and a miles fight. This float has proved very useful to the residents if the section.

## PRESENT CONDITION AND NEEDS

Le most important project in this district, the Haines-Pleasant, said road, is now completed to the boundary and requires proper Limitable. The section from Haines to Wells requires slight intervenent.

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

## DISTRIBUTION OF EXPENDITURES

Traje Spirit Books	Miles 79 5	Expenditure	Unit Cost Deilars per Mile
Totels	84	857,226.58	\$ 651,04

## 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 the Lond latitude and east of the 144th meridian. It includes a "Fil of early development in the history of Alaska. During the third proves, 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.

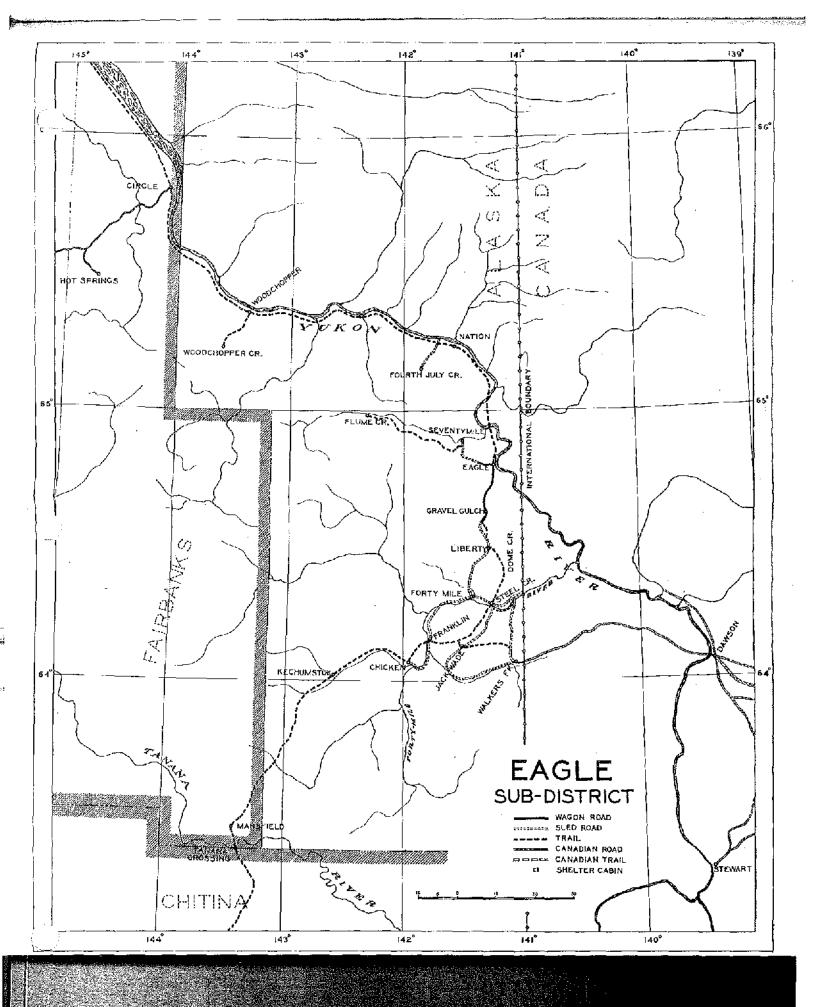
All projects in this sub-district were supported by the Alaska Road Commission exclusively, with the exception of shelter cabins which were supported by the Territory exclusively.

### SUMMARY OF ROADS

Sub-					
Projec	et .	Wagon	Sled		Total
No.	Name of Route	Road	Road	Trail	Miles
11A	Eggle-Liberty	20	7		27
11AA	American Summit-Liberty			12	12
118	Liperty-Fortymile	_**	23	1-4	23
11C	Steel Creek-Jack Wad"		15		15
11CC	Site) Creek-Jack Wade	****		15	16
131)	Steel Creek-Walker's Fork		27	••••	27
11E	Easte-Seventymile	4	16	40	60
11F	Jack Wade-Chicken	****	****	20	20
116	Steel Creek-Canyon Creek			5	5
1111	Liberty-Dens-			10	30
111	Dome-Steel Creek	***		12	12
11J	Fortymile-Franklin	•	30		30
	Fortamile-Steel Creek		8		8
111.	Franklin-Chicken		20	***	10
11LL	Franklin-Chica-n		20		20
1111	Jack Wade-Walker's Fork-Boundary	4474	•	18	18
	Jack Wade-Mouth Walker's Fork	•	12		12
53	Eagle-Circle			160	180
651)	Kechumstuk-Tanana Crossing		****	69	60
65E	Chicken-Kechumstuk			28:	28
85	Fourth of July Creek		5		10
87	Weedchopper Creek			Ř	-8
90D	Shelter Choms 4th Division				
+ 0 L*					
	Torole	99	172	200	500

## SUMMARY OF EXPENDITURES

Sub-Project Numbar	Federal	Territorial	Construction	Maintenance	Total
11A	\$ 1,535,89		**	\$ 1.835.80	\$ 1,835,80
11AA	6,429,14		5.429.14	1.600.00	6,439.14
11B	171.50			171.50	171.50
iic	325.25			325.25	325.25
11CC	162.50		************	162.50	162.50
11D	308.20			308,20	308.20
11E	2,271.80		910.09	1,391,80	2,217.86
11F	\$14,20		A - + + -   10 <sup>2</sup> -   14 - 15	814.20	814.20
11G	92.00		4	92.00	92.00
11H	77.13		*********	77,15	77.15
111	1,985.49	****	5(0),00	1,485,49	1.985.49
11J					
11K	W-14-14-1		***************************************		,
11L	156,59			156.50	156.50
11LI.			****		
11M	125.60		H1174-171744	125.09	125.00
21 M M	114.59			114.50	114.50
53	1,682,78		742.00	941.78	1,683,78
65D	\$97.00			807.60	867.00
65 F.	144.59			144.50	144.50
86	1,040.39		800,00	140.39	1.049.39
87		11			- mandarman
991)		845.13	\$15.13		845.13
Totals.	315,484.70	\$ 545.13	\$ 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 20 miles of this route from Eagle are suitable for wagon traffic. The last 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.

118-Name changed to Liberty-Fortymile,

1100—This summer pack trail lies to the northwest of the winter sled road justead of the northeast as stated in the 1924 report.

11D—This winter sled road is an extension of Route IIK. 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 ace 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 Gorgo 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.

116—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 6 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 Pork 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

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. 5½ miles of new trail were built including some side hill grading and ½ mile of corduror 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.

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

90D-Shelter cabins.

Route Locatio		Work Done	
11A Gravel	GuichFloor, bunk	is and stove in cabin	: floor in
	baru, m	oof repaired	\$150,60
11AA Liberty	Floor and s	stove in cabin, roof re	paired 135.13
11H Dome .	Cabin and	barn built	560,00
			<del></del>
	Total	3-1-4-pt	\$845.13

## 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 Seventymite River requires additional improvement.

#### DISTRIBUTION OF EXPENDITURES

Type	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Read	29	\$ 3,135.80	\$ 108,13
Sled Road	115	1,916.34	16.66
Trail	350	13,432.56	36.37
	+	7	
Totals	524	\$18,481.79	\$ 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

..., bokwim Valley, via Aniak, Bethel Goodnews Bay, Togiak, Dillingtain and Naknek to Kanatak.

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

## SUMMARY OF ROADS

Sub- Prei÷er		
Na	Name of Itoute	Tráü
99C	Shelter Cabins-3d Division	
95D	Shelter Cablus—ith Division	-
25A	gi-ji-gi-kumbagak	641
122 231	Deliel-Akiak	26
52€	Akish-Russian Mission L	7.5
22	Beidetije Caroff	1.8
经三	Tukin-Kushchwim Perisge	220
2527	Quirhagas Sednews Bay	69
9 <b>2</b> 19	Sociations Dev-Totals	50
627	Tigʻak-Nushagak	125
621	Lewis Peint-Nakrek	8.5
523	Nazrek-Egerik	50
P-1	Cricked Creek-Aniak	- 11
92M	- <del> </del>	60
0025	Alisk-Canyon Crask	45
120	Lukkak-Bear Creek	27
9 <b>2</b> P	Roly Cress-Raltshak	50
	Wheels	<u> </u>

## SUMMARY OF EXPENDITURES

्यादेश	Federal	Territorial	Construction	Maintepance	Total
45		119,00	8 310,60	3 16000	\$ 140.00
72A	3 112.60			112.50	112.50
H33	\$33.57		369,60	222.77	522.77
r2:.1					
<u></u> :≘⊇					***********
12E					
777					
: 313			<del>_</del>	*	
)2H	· –				
PEE.		·			
-20		***		**	
19L	±77.42			277,42	277.42
3225	\$\$,00			25.00	25.60
72.5	\$180,000			396.00	308.00
72 <b>Q</b>	1.135.12		1.185.12		1.185.12
F0F*	\$4,60,90		\$00,00		500.00
Totals.	\$ 2.928.91	8 440,00	\$ 2.825.12	\$ 1,643,79	\$ 3,368,91

## DESCRIPTION

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

921-Route name changed to Lewis Point-Naknek, \$6 miles trail,

924-Distance should be 59 miles instead of 65.

921--Route frame changed to Crooked-Croek-Aniak, 74 miles, 77% route now connects the Bethel system of trails with the

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 ml trail). This route extends from Aklak to the placer mines on canyon Creek. The Kiselakik and Kuskluk Rivers are crossed enroute by ferries.

920—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
9231		k	
92M		kCorrugated iron roof placed	
920		abinCorrugated iron roof place(I	
93O	Foothills (	abinCorrugated iron roof placed	50.00
		Make 1	0440.00

928—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.

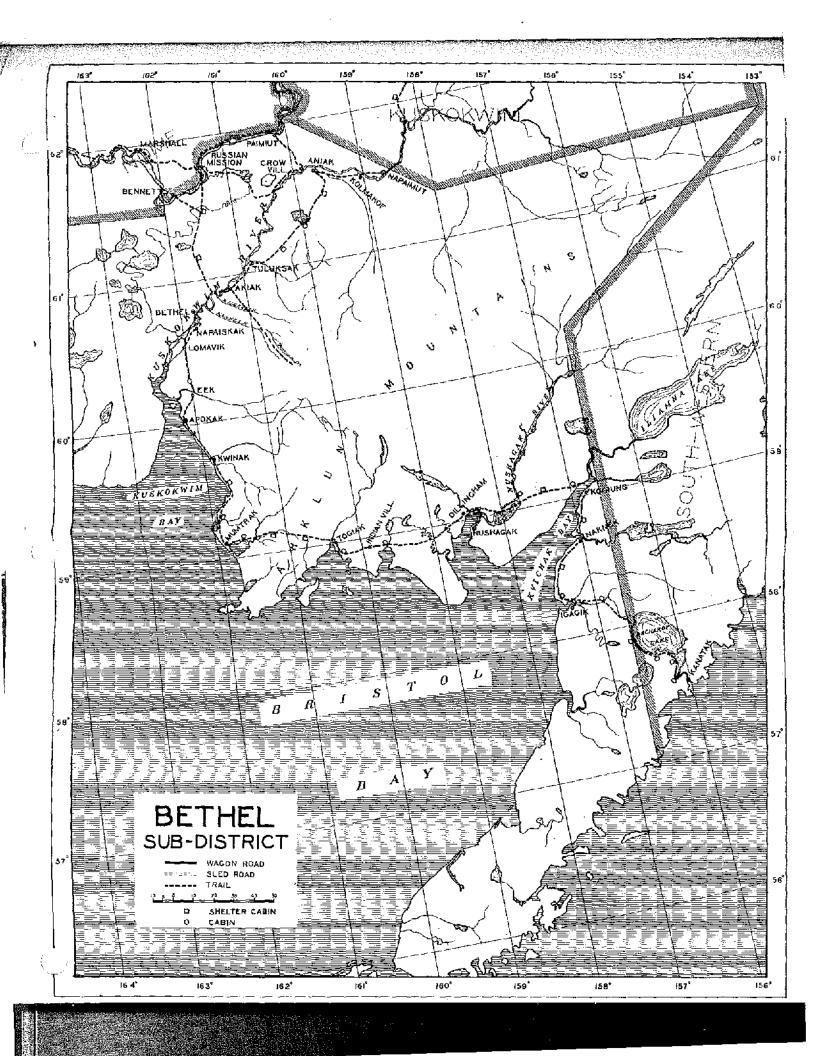
92H—Shelter cabins have been built and stoves installed at Tuklong River and Birch Creek, but bills had not been paid at close of fiscal year.

921—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 Aniak were graded to allow easy approach.

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

920—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 Stough in cooperation with the New York Alaska Cold Dredging Company. This Company is hauling 900 tons of freight over this route.



92P. This trait was well marked. Large beacons were erected a lake crossings and arrow pointers placed on the banks of doughs to indicate the direction of travel. All timbered stretches agree out 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 round condition. The trail from Egegik to Kanatak should be marked. Staking and shelter should be inspected and repaired yearly.

### DISTRIBUTION OF EXPENDITURES

				Unit Cost
Type		Miles	Expenditure	Dollars per Mile
T-41)	A	383	\$ 2,928.91	\$ 7.65
4424				

## VALUEZ DISTRICT.

## T. H. Huddleston, Supt., Vaidez

This district embraces that portion of Alaska tyling 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 overment 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 seenic 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-Piarmigan Drop 4BR Pintrmigan Drop-Ernestine 4C Ernestine-Willow Creek 36 Valdez-Mineral Creek 36A* Granby Road 36B* South Second Street, Cordova 6b Valdez Dyke	36 29 8 5
Total	<del></del>

(\*)-Territorial Projects.

#### SUMMARY OF EXPENDITURES

Sub-Pro Numb		Territorial	Construction	Maintenance	- Total
4BA	\$93,285.68		\$60,725,68	\$32,569.00	\$92,285.68
$_{4\mathrm{BB}}$	53,219.69		25,047,69	28,172.00	53,219.69
±€	36,985.31		22,360.31	14,725-99	36,985.31
38	2,857.45	1.209.56	6,817.01	3.341.00	10,158.01
36A	#1144-periods	349.≰4	************	349.44	349.44
36B:					
69	(a)		*	**-******	(a)
	Potals\$186,448.13	\$ 7,650.00	\$114,850,69	\$79,147,44	\$193,998.13

(n)—Work paid for by City of Valdez, \$4,638.90, 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 Yaldez, 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 Dear Creek bridge, a 150-foot suspension span, was re-creeted 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.

488—4,000 feet of new road (relocation) completed and gravel surfaced, removing road above flood water of the Tsaina River, 1½ miles road were regrated and 3½ miles surfaced with gravel, 47 metal and 25 timber culverts installed.

40-11 miles road gravel surfaced, 1 mile regraded and widehed, 78 metal culverts placed.

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

60-375 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 notting 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	***************************************	165	\$193,908.13	\$1.\$47.60

## · CHITINA DISTRICT.

Frank Shipp, 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° 19' 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 Streina. Shelter cabins are supported by the Territory exclusively.

#### SUMMARY OF ROADS

ֆևե-				
Projec	et.	Wagon		Total
No.	Name of Route	Road	Trail	Miles
6D	Chitina Depot	****		
6B	Chitina-Tonsina	15		15
6A.	Tonsina-Willow Creek	21		Žŧ
4D	Willow Creek-Gulkana	36		36
4E	Gulkana-Sourdough	2114		2134
4 F	Sourdough-Mile 168	18		18
4C	Mile 168-Delta River	39		38
4H1	Delta River-Rapids	251%		251/4
54	Nizina-Chisana Trail	20 /2	78	78
56.4	Katalin-Yakutuga		Ġΰ	69
57	McCarthy-Nizina	12	417	12
57A	Nizina River Bridge			
61*	Streina-Kuskulana	124	****	12%
61B*	Nugget Crek Extension			
65A	Cultone Chestochine	6 12		6
	Gu)kana-Chestochina		28	40
65B	Chestochina-Slate Creek		40	40
65€	Chestochina-Tanana Crossing		340	349
65G	Slana-Chisana Recon.			••••
90C	Shelter Cabins, 3rd Division			
	Totals	22646	346	56636
		250.25	040	900 %
	(*)-Territorial Projects			

## SUMMARY OF EXPENDITURES

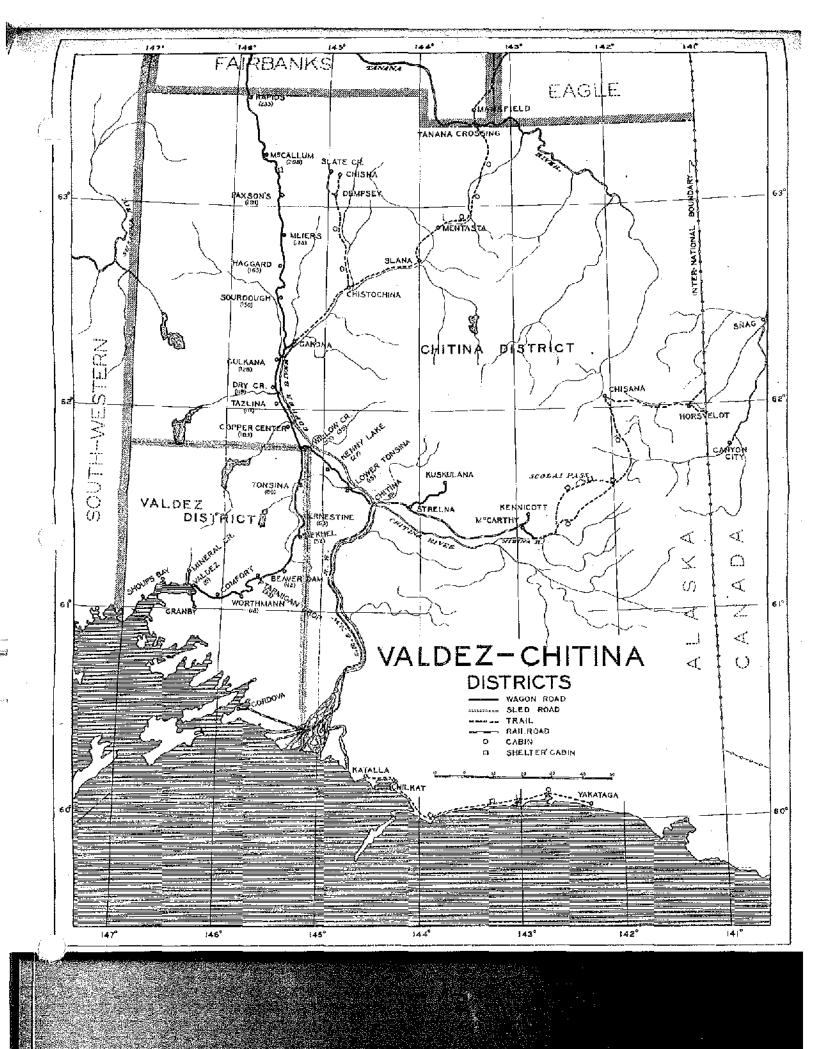
Total 3 4,130,78 12,440.08 21,385.85 54,764.39
12,440.08 21,385.85 54.704.39
21,385,85 54,764,39
21,385,85 54,764,39
54.704.39
6.316.20
14,154,59
30.911.00
50.071.57
770.19
15 FOT DO
15,581,88
6,876.35
1.321.44
,,
21,285.06
385.04
2,981.78
246,196,20

## DESCRIPTION

For detailed description see Part II, Annual Report for 1924. Routes 57, 57A, 54 and 56A will be found described therein under the Valdez district. The following changes and additions should be noted:

60—This covers the headquarters buildings for this district. Storage shed for equipment and blacksmith sliop 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.



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.

618—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.

35A—The wagon road was extended during the past year so that this route now consists of 12 miles wagon road and 25 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 in the Chisana River valley. Crossing this valley the Chisana keloffice 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 treatle 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 treatle. 104 metal culverts were installed, 30½ miles of road surfaced with gravel and 13 titles 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'x112', black-thith 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 conductored and wet spots gravel surfaced. The road was stacked 2 miles beyond the Nizina River bridge to the crossing of Young Creek.

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

656—A reconnaissance was made over this proposed route in traction with Route 54. Two boats to be used as a ferry were larged at the crossing of the Slana River.

90C-Shelter cabins.

### 2 ANNUAL REPORT ALASKA ROAD COMMISSION.

Route	Location Work Done	Cost
54	Honvetted, Scolul and Frederika	417.30
Бŧ	On Robin Glacier 18 miles from foot of Nizina Clacier	*
54	corrugated from roof Solo Mountain	989,10
	corrugated fron roof	939.11
05G	Cooper PassPurchase stove and corrugated from	56.27
€513	Jack Lake12x14 log cabin with stove and	18.60
	corrugated iron roof	660.00

# 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 Wagon Road Trall	$rac{ ext{Miles}}{21115} \\ 106$	Expenditure \$241,964.23 1,270.19	Unit Cost Dollars per Mile \$1,182,04 11.98
Potals	3961.	1948 281 42	e 750 09

## 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

AND THE STATE OF T

ct Name of Route	Wagon	Sled	m	Total
Name of House	Road	Road	Trell	Miles
Rapids-Grundler	48	44.4	-	48
Grundler-Pichardson	$201_{2}$	****		2012
Richardson-Salebaket	30	1-5	****	30
Salchaket-Fairbanks	10			40
Salcha Bridge				****
Summit-Thatailka	11			11
Ester Creek	13			13
Fairbanks-Climare	13			13
Gilmore-Summit	å			-6
Fairbanks-Chena Mot Springs		64		61
Goldstream O'Conner Crack		6		6
Wireless Ross	1_		_	1,
Circle-Miller Flouse	₹8 <u> </u>			49
Cincianika Malar House	321.	451.	<del></del>	81
Spowshor-Seever	0+ 49		167	191
Beever-Caro	7.5			75
Mig Creek Treat		****	20	
			249	212
Caro-Flat Creek		15		45
Caro-Coldferr			85	55
Caribou Creek		46		46
Chele-Ft Yukin			57	67
Figh Yulian Aylanian Field			76.6	17.4
			_	H
Fairbanks Bridge				
Teirbanks Deres		****		
Grandier-Tarking Crossing			213	113
Shelter Tables				
	_			200
Tyong is	93521	26035	298	9232,

## SUMMARY OF EXPENDITURES

୍ଦ୍ର ପ୍ରତ୍ୟକ୍ତ ଅ					
in bêr	Pederal	Territorial	Construction	Maintenance	Total
-112	\$08.T1T.69		\$19,517,69	\$19,269,69	\$38,717.69
	2 <b>5</b> .51 8.66		15,199,00	9,926,66	-25.110,000
- <del>.</del> .	41.272.64		20,982.64	15,210,69	47,292.64
	23.007.92	AA44	15,677,92	18, 280, 66	25,807,92
15 53 53 53 55 15 15	34 P32 33		12.2(7.89	2,725,65	14,932,89
à	22,684,49		8,354,40	4.5(9.69)	12,554,46
· <u>-</u> -	1.142.1	2.657.00 <i>(</i> a)	929,80	2,279,01	3,199 61
- }	8.5,556,37		27,939,87	6.569.05	34,430,57
• :	7 4.23		1.514 38	2,169,66	7.514.38
	2.4 1.93	396.06	560,46	1,263.06	1,793.08
- Et			J		
	15,69			15.00	15.60
<del>.</del>	8 135,91			3,125.91	8.185.91
•	18-51-57-8-4-5		191,300.48	15,139.00	156,439,48
₹Æ	514.81	420,60		913.51	916.81
} ₩	14 47 - 10		5,250,00	9.220.10	14.470.10
4 ~	1,457.44		1.060.00	947.57	1.967.57
<b>8</b> -3	\$29,32		***********	529.82	529.33
=			·		0-2-0
· · ·	125.71			125.71	125.71
ī.	77.65			1,219,65	1,219,65
5	(b)		1,190.89	1,210.00	1,190.89
	13.55		1110000	13 55	10.85
C, Ž.	5,448.49		3,043.09	10 10	8,048,09
별 기	+/2/23		602.26		662,26
ī,		1,092.65	972.15	129,29	1,032,65
		11.02.00	271 22 101	1 274, 2 9	3.000.00

Totals\_\$300.554.51 \$ 5.040.54 \$256.714.56 \$112.210.19 \$337.925.15 ...—Includes \$102.6 from Fairbanks Exploration Co. and \$155 from Try of Fairbanks exploration gravel from dragling.

11 \$660.00 rectory and labor contributed by the citizens of Fort continued by the citizens of Fort contributes.

#### 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 180-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 wiles from Chatanika, reducing the sled road mileage by this distance.

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

53A—This winter trail extends from Circle at the end of Rome 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 % miles from the village of Fort Yukon and is 300 feet by 1,400 feet.

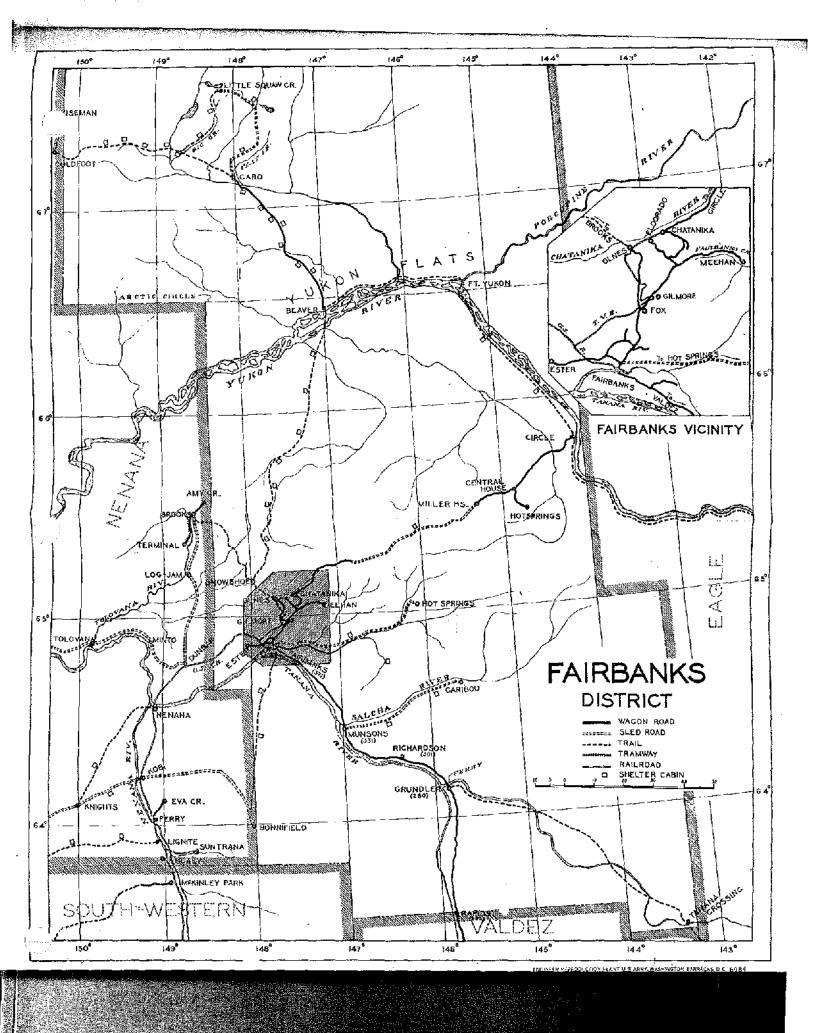
59A—This comprises the district hendquarters buildings including a combination warehouse, office and warm storage 30'x100', garage and repair shop 30'x30', equipment shed 20'x70', oilhouse 20'x30' and a dog barn 20'x30'.

## 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. 1,990 cm. yds. of gravel were placed repairing surface over 4 miles. 4 miles of now road (relocation) were cleared, grubbed and graded. 13 miles of road were regraded and widened in preparation for surfacing. 119 metal cuiverts were installed, 86 linear feet of frame bent trastle bridge, 120 linear feet of pile trestle bridge and one 100-foot Howe trass span were constructed, all being renewals. Six 10'x12' oil-houses 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 antirely renewed.

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



7A—5 miles were regraded and widened, 24 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.

76—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.

71—900 linear feet of new road (relocation) consisting of 1,020 cu. yds. of fill were built, 30 linear feet of treatle bridge were constructed, all renewal, 3 metal and 3 timber culverts installed.

16—11% 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 etions of new road, 1,000 linear feet of corduroy were placed, linear feet of native timber stringer bridges constructed and 111 metal culverts installed. Clearing was completed 13½ miles and prabbing 3 miles beyond the present end of the road. A definite location was completed through to Miller House. The distance

238—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 corduror were placed and covered and 38 timber culverts installed.

from Chatanika to Miller House on the located line is 8714 miles.

53B—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 waim 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.

# 90D-Shelter Cabins.

Route	Location	Work Done	Cost
78	Globe Creek .		220,90
7K		k16'x7' cabin built, stove installed	
23.A	Mile 40	14'x16' cabin built	200.00
23.A	Mile 84	Roof renewed	100.00
23A	Mile 91	Stove installed	20.20
53A	Mile 34	13'xi4' cabin built, stove installed	330.55
		Total 31	109265

# 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	33814	\$395,522,39	\$1,149.75
Sied Road	20314	3.356.09	16.49
Trail	201	4,766,29	15.63
	_		
Totals	84927	\$393,584,67	\$ 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- Projec No.		Wagon Road	Trail .	Total Miles
	Cleary Creek Road	. 3	****	3
7B	Fox-Olnes	13		13
7C	Summit-Fairbanks Creek	13	**	13
7DA	College Spur	Ŀ,	****	畅
$\sqrt{7DB}$	St. Patrick's Creek	212		315
7GA	Lazelle Road	21.	••••	235
714	Little Eldorado Crack	6		Ġ.
7K	Olnes -Livengood		54	54
7 N	Farmers-Birch Hill	9		9
7NA		2		2
78	Graehl Bridge			
7.T	Farmers-Chena Slough	412		435
15A	Central House-Circle Hot Springs	9		912
631)	Brooks-Aviation Field Road	144		136
0.525	District Verminost, which will be the second of the second			- 723
	Totals	6612	54	130 1/2

# SUMMARY OF EXPENDITURES

# Territorial Divisional Funds

Sub-Project Number	Construction	Maintenance	Total
7AA	\$ 665.45	8 2500.60	
tB		* = 100 × 000	\$ 565.45
7Ĉ	2,200,00	164.59	164,59
DA	2.295.09	2.587.53	3,537,53
		\$\$.60	93.60
· DB	4.603.73		3,693.73
77±4		380.33	156,83
7 <b>H</b>		547-67	\$47.67
714		513.25	
TN		3. 3. 13 3. 4. 33	513.25
TNA			\$24.59
78		19.00	19,69
77		· · · · · · · · · · · · · · · · · · ·	
15A	296.14	₽(-0.00	(26.14)
		239,56	299.50
63 D	488.59(9)		454,66
			45 57 664
Totals	<b>—\$</b> 6.253.33	8 6.021.67	\$12,275,06
			~ ( ~ ( ~ ( ~ ( ~ ( ~ ( ~ ( ~ ( ~ ( ~ (

(a)- In addition, the critisms of Brooks contributed \$225 in labor.

# DESCRIPTION

For detailed description see Part H. Annual Report for 1924. The following changes will be noted:

Route 7AA—This route was a portion of road formerly included to 7A, Summit-Charatika, which was abandoned in favor of a carion. It serves mining operations along Cleary Creek. The focusion of Cleary.

FOR—This route branches from the Ester Creek Road, Route 7D, Mile II and extends 1% miles to quartz mines on Ester Dome. Tranch of this road 3% miles long serves a quartz mill at the tell of St. Patrick's Creek.

\$3D-This road connects the village of Brooks with the newly distructed airplane landing field.

# OPERATIONS DURING YEAR

Work the bast season consisted chiefly of maintenance on the authorise local roads.

The following new work was accomplished:

TDB—One and three quarters miles of new road were cleared, whiled and graded, leading to the lode mines on Ester Dome. A reinum grade of 5th was obtained. A branch road three quarters mile in length was cleared, grubbed and graded to the quarter, at the head of St. Patrick's Creek. 14 timber culvers were talled and 200 linear fest of cordurary built.

\$30—An old road was rehabilitated. One-half mile was graded, [2.78] feet of cordaroy laid and covered and 3 timber calverts talled. Citizens of the village of Brooks contributed \$255 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
Wagen Road	661 <u>5</u> 54	\$11,761.75 513.25	\$ 176.87 9.47
Totals	12014	\$12,275.00	<b>\$</b> 98.56

# NENANA DISTRICT.

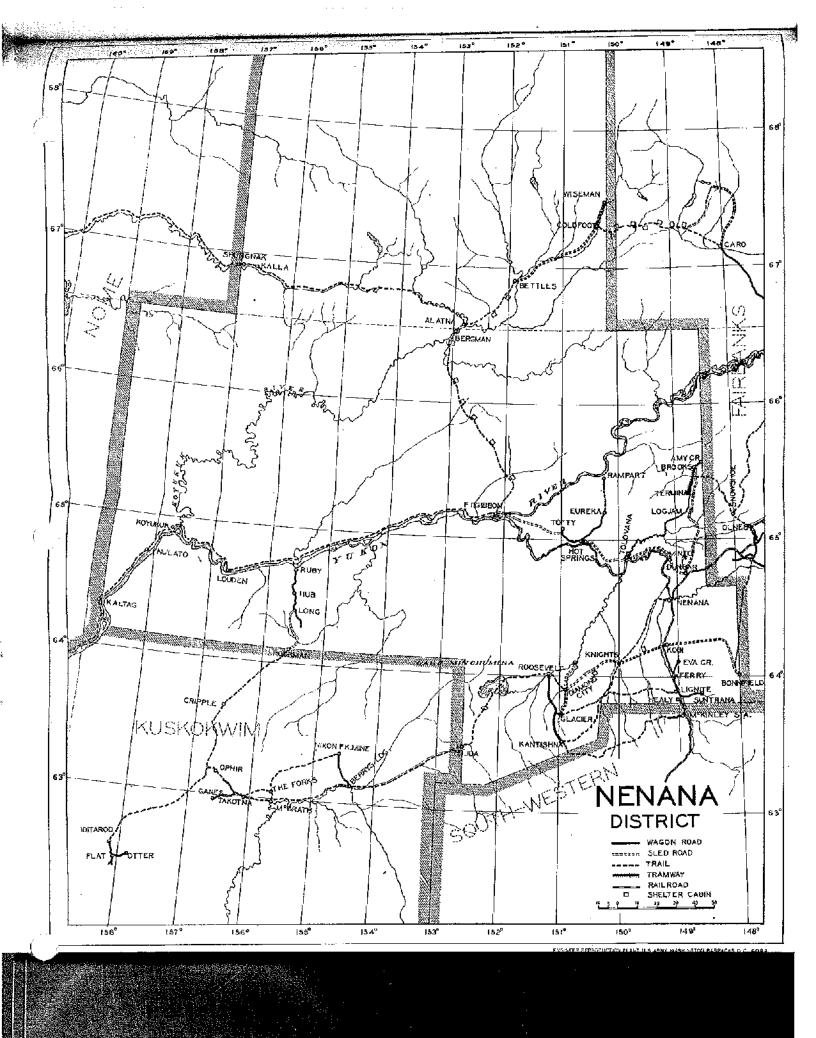
## H. G. Haslem, Superintendent, Fairbanks

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 Bonnifield.

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 traits, the most important of which are the route from Dunbar through Ft. Gibbon to Kaltag which carries the winter traffic to the Seward Peninsula and the route from Kobi through Roosevelt to Telida and McGrath 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.



£ 75•	SUMMARY OF	ROADS			
F. (3.8		Wagon	Sled		Total
No	Name of Stoute	Road	Road	Trell	Miles
1.4	Durkar Fr Othbar		115	2. 4 11	115
	Hampart-hureka	S.	191.,		2744
_ <del>-</del>	Pt. Gober-Rettar			257	257
11	Hot Springs S distant Creek	19			19
13	Ft. Official-Bettles			156	156
13.4	Bestles-Colifort	****	5212		52:-
	Hot Springs Landing Hureka	34			24
- 4	Hot Springs Tofry Lamman	****	16		16
75.4	Ruby-Long	2510			287-2
EE	Long-Postillin (summer)	19			10
HEE	Lone-Poorman (Sinter)	****	29		29
950	Buby Avertien Field				++
±ĝ.	Kobi-Dureks		95		95
47.4	RoosevilleRenristra	34	****		34
환경	Lignite-Kartismae Nenana-Knight's Roadhouse			95	85
45 <b>0</b>	Neugath Tiets & Maschouse	*		43 80	42
	Diemer de Talies	**.*	****		86
46F 46G	Nepara Jemetery	212			212
	Nobl-Sarriseld	****	15		15
4931 47	Lake Minormoma Aviation Field Colditor-Wiseman				277
5.A	Coldinor-Wissenar Wissenar Wissenar Field	****	11		11
2000			63	***	22
1374	Brooks-Aggy Creek	•		_	63
25.0		4 10	**-*		1
is€ taE	Errocks Track Livenskich Aviation Field	-+	****		13
1045	Miret mira Perrage Recon.				
	Ferry-Eva Wreek	111.	****		1.11
H <sub>D</sub>	Shelter Cabin	11,4	*		$11_{-2}$
					***
	Totals	11512	446	536	12211

# SUMMARY OF EXPENDITURES

Sumber Sumber	Zederei 8 1,166,18	Territorial	Construction	Maintenames \$ 1,446.45	Total 3 1,440.48
17	****				
17	\$14.66		·	\$14.60	514.49
24 29	E & E . E **	2,591.15		3,075.95	3.075.95
29	750.76			739.75	780.75
29.5	1.541.75			139.75	139.75
39	2.9.3.17	1.06m,00	1,800.00	3,4.3.11	6,973.77
SOA	1.055.47		<u>ដូ</u> តិមិត្តិ គឺមិ	65.47	1,258.47
284	6 1 NA TA			4.152.73	4,183.79
3611	11.925.55		11,725.88	$\frac{4.139.13}{2.260.09}$	
557.E	U-33		17,520.00	•	13,925.88
		25.2.21			** ************************************
3880	(EL)	600,00	669,00		600,00
45	\$59.7\$			659 75	659.75
4RA					4/1471971-1817-4
46B					
46C					
45E	868,63			953.59	968.89
467	233.20	400,60		613.20	619.20
4542	6.00			00.90	80.99
4511		750 (4)	759.99	6.57.6.5	
17	657.24	E 99+17.1-14	1.000,000	857,25	750.00
#JA	957.29 Obj	8.000.00	A AAA FA	6525	657.24
80°			2,000,00		2,000.00
83_	200.72	3,972.99	2,590.69	1,203.92	4,206,02
88B		277.10	***********	277.19	277.10
53 <b>€</b>	£1199.59			4.150.50	4,190.51
98室		294.60	234.00		294.60
§ ()	. 500,00		509.00		500.03
8.8	11.655.19		19,155,79	1.400.00	11,555.73
96D		350.00	250,00	W. E. S. A A. A.	\$50.09
		901102	6000000		20.04

# 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, 191/2 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 Tofty 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 Poorman during the season of 1926.

38K-This airplane landing field is situated 1% mites 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 Nenaua with its cemetery and serves several farms enroute. It is suitable for wagon and light automobile traffic.

46C—This sled road gives access from The Alaska Railroad at Kobi 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 Minchamina. 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 \$80.90 to \$20.99 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 Pairbanks.

# 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 Daker 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 cordaroy 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 ont by ice in the spring of 1925. A new bridge was erected consisting of one 100-foot Howe truss span and 129 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 Solatina 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 (imber (218 linear feet) constructed and 34 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 \$500.

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 Minchumina. 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.

88—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.

## 900--

Route	Location		Work	Done	Cost
46G					\$175.00
, 4oG	Totatianika	River	Cabin	philt	175.00
	Total	1		*******	\$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 Minchmina 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 Wagon Road Tramway Sled Road Trail	Miles 901 <u>4</u> 18 3971 <u>4</u> 503	Expenditure \$40,611.48 4,190.59 8,413.61 2,283.6‡	Unit Cost Dollars per Mite \$ 443.75 322.35 21.17 4.59
Totals	1,604	\$55,470.32	\$ 55.26

# 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 Rallroad 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 romes 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

Sab-					
Projec		Wagon	Sled		l'otal
No.	Name of Route	Road	Road	Trail	Miles
$20\mathrm{B}_\odot$	Spring-Rainy Pass			127	127
	Nancy-Sustina	**-* .	****	. 25	25
;	Archangel Extension	51.4			534
36	Carlo and an artist of the carlo and the car			1.2	1,2
35 A B	Fairangel Extension	2.5	****		2,6
351)	Willow Creek Extension	11		_	13
35E	Wasilla-Fishbook	16		·	16
35 <b>F</b>	Wasiba-Knik	15			15
85H	Wasilla-Finger Lake-Palmer	12			12
35J	Wasilla-Majanuska	\$			8
35K	Majanuska Trunk Road	8			8
35 X	Houston-Willow Creek		30		3/4
350	Fishhook-Goldmint		6	·	6
46D	McKinley Park Road	22	••••	ēš.	87
48	Diamna Bay-liamna Lake		****	12	12
51	Talkeeina-Cache Creek	2313	18		1114
61A	Cache Creek Trail	±9.%		114.	1115
51B	Peters Creek Trail			145	143
51C	Yentna Reconnaissance	*		-	-
511D	Mile 32-Spruce Creek		712	****	5.15
	Kungi-Russian River		60	•	$60^{72}$
55		1414			1114
75 55 T	Anchorage-Easte River	5	• • •	_	5
75D	Anchorage-Whitney	-	****		-
75D	Anchorage Warehouse	114	**	_	
15E	MacDonald Branch	7.4	==		111
76	Cantwell-Valdez Creek		55	_	55
79	Seward Warehouse			****	
90C	Shelter Cabing, 3rd Div			+ 2	
93	Challent Trail	****	****	3	3
93A	Bull River Trail			4	4
9313	Indian River Footbridge	****			
94	Kodiak-Abberts	· · · · · · · · · · · · · · · · · · ·		ō	5
95	Kanatak-Decharoi Lake	837			8%
96	Chickulcon-King River		€ L2	_	61-2
98	Homer Spit	33,			3.4
98A	Nuka Bay Trail			11,	14
		- <del></del>			
	Totals —————	$1543_4$	183	269	50,637

# ANNUAL REPORT ALASKA ROAD COMMISSION.

#### SUMMARY OF EXPENDITURES

Sub-Fr	oject			-	
Numb	oer Federal	Territorial	Construction	Maintenance	Total
26B		***********	,	*********	****
$20\mathrm{H}$		**********			
35 A.	<b>\$ 2,967.42</b>		\$ 1,200.00	\$ 1.767.42	\$ 2,967 42
35.A.A.	1,119,32		1.119.32	************	1.119 22
35A.B	104.20		104.20	******************	104.29
35D	2,865.60			2,865,60	2,583.56
35E	4,284.68			4.284.58	4.284 34
36F	4.665.62		3.519.00	2,055,62	4,665
35H	320.30	***********	*******	220.30	220 5
35.1	2.159.06	5.678.56	3,529.00	2,317.62	5,837 (2
3510	391.56	0.010.00	0,023.0	391.50	391.5
35 N	219.00			249.00	249
35O		*************			_ +
46D	52,539,40		52,490,24	49.16	Par Para da
48	6,495.00	**********			52,539 49
51	10,239,12		<b>5</b> ,770.00	725,00	6,495.0%
51A			2.000.00	8,229.12	10,229 12
51 <b>B</b>	1,976.28		1,270,00	706.28	1,976 25
	4,427.93	************	3.807.93	620,00	4,422 95
51 <u>C</u>	1,114.91	***************************************	1,114.91	***********	1,314.83
51.ID		**********			
55	1,908.87	1,200.00	1,200.00	1,908,87	3.105 €
75	7 073.60	<b>3,</b> 700.09 (a		5,800,00	10,773 6 4
7513	3,037.47	2,100,00	3.627.47	1.500.00	5.127.47
75ID	427.98	*		427.98	427.98
75E	455.13	300,06	6//5.15	150,00	755 11
76	21.00		*************	21.00	21 00
79	16.00	*	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	16.00	16.00
90C		308.25	303.25	20,00	30 5 23
93	116.29	***************************************	D-7012-9	116.29	116 25
93A	783,51	690.00	1,183.51	200,90	1,353.52
93B	4.00	100001111	1,110,01	4,00	4 251
94	14,254,29	************	13.754.29	500,00	14,254 25
95	50.75	**********	10,104-20	50.75	59.75
96	413.66			413.66	413 66
98	3,482,57	0.000.00	7.282.57	414,00	
98A	1,302.66	3,900.00			7,382 57
EOM	1,302.65	3,000,00	4.302.66	PRATTICA MARKET	4,802.45
•	Totals\$129,147.02	\$18,786.82	\$112,344.08	\$35,589.75	\$147,933 5

(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 1923. 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 (a a point beyond the Fern mine.

35A8—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 8 miles instead of 10.

45D-...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 201; 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 read 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.

518—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 freek

75-Length of route 141/2 miles.

75B-Length of route 5 miles.

75E—This road branches from the Anchorage-Eagle River road at Mile 214, extending 114 miles and serving several farms.

93A-Length of route 4 miles.

938—This footbridge spans Indian River one mile east of Mile 234 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 8% 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 in 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 sutaible 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 nehalf mile. The route is passable for light wagon loads in dry reather 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. 38 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 rrabbed 30 feet wide, 2 metal and 2 log culverts installed and 50 linear feet of corduroy placed.

Ţ

76

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

460—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	S 1.	777.	66
Warehouse		441.	86
Cabins (Savage and Sanctuary Rivers)		426.	
Trail Tents		732	
Trail Construction		998.	
		500.	
Reconnalssance			
Road Construction			
Road Maintenance	4.	509.	.16
Expendable Supplies on Hand	8.	631.	. 23
Total ,	\$147,	318.	21
	_		
Fiscal Year 1922		500.	
1923	. 2,	528.	90
1924	-1.	961.	.74
1925	86.	788.	17
1926	52.	539.	40
			_
Total ,	\$147,	318.	21
National Park Service			
Territory of Alaska			
Contributed		700.	25
Alaska Road Commission		865.	
			-
Total	\$147,	318	.21

48—Heavy sidehill grading was completed over one mile of this route consisting of 1,080 cubic yards of solld rock and 1,536 cubic yards loose rock excavation. Timber for bridges was landed at lliamna 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. 4% 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.

518—This trail was completed to a total length of 14% miles. The past season's work included heavy sidehill grading over 2½ 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 31/4 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 culvorts 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.

Timbe Cost

1 1

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.

98-3% miles of road were cleared and 2% 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 1¼ 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 cordury 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 throad from Kodiak to Abberts Rauch and Mill Bay is very desirable as is also the construction of 161/2 miles of road at Homer Spit to serve the farm community at that locality. The road into Mi. 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	Dollars per Mil-
Wagon Road	154% 169%	\$118,218.05 8.021,65	\$ 763.93 47.44
Trail	117	19,822,99	169,43
Totals	44114	\$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		Wagon	Tetal
No.	Name of Route	Road	Miles
10'B	, Seward-Nash	21/4	212
35B	Palmer-Fishhcok	81/2	81,
35C	Palmer-Matanuska River	11/4	115
35 G	Palmer-Springer	3	ວ້
35I	Moose-Palmer	6	G
35 L	Palmer-Matanuska	61/4	55-
35 C)	Edlund Road	<u> 144</u>	12
35 R	Bogard Road	31/4	31
75.A.	Anchorage-Lake Spenard	4	4
75 C	Chester Creek Boat Landing	1	1
		<del></del>	<del></del> .
	Totals	36%	3674

# SUMMARY OF EXPENDITURES

#### Territorial Divisional Funds

Sub-Project No.	Construction	Maintenance	Total
	(1511512 40004		\$ 800.00
10B	-4-14000000000000	\$ 800.0D	4 690.00
3533	********		417.40
35C		411.42	411.42
35 G	***		
351		200,00	200.00
35L	********	582.86	5 <b>82.</b> 86
35Q	**********	,-,,	***************************************
35R	2,888.58	.4.41144-1	2,388.58
75.A	3,770.00	1,200.00	4,970.00
75C	,	***************************************	v*
Totals	5 6,638.58	\$ 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 114 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 § 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 i miles of road. The cut on Chester Creek Hill was widened and I 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 form areas. They are adequate for the purpose though generally parrow for automobile traffic and soft in wet weather. The Bogard Road should be completed.

# DISTRIBUTION OF EXPENDITURES

*******	Miles	Expenditure	Dollars per Mile
Type Wagon Road	 041/	\$ 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

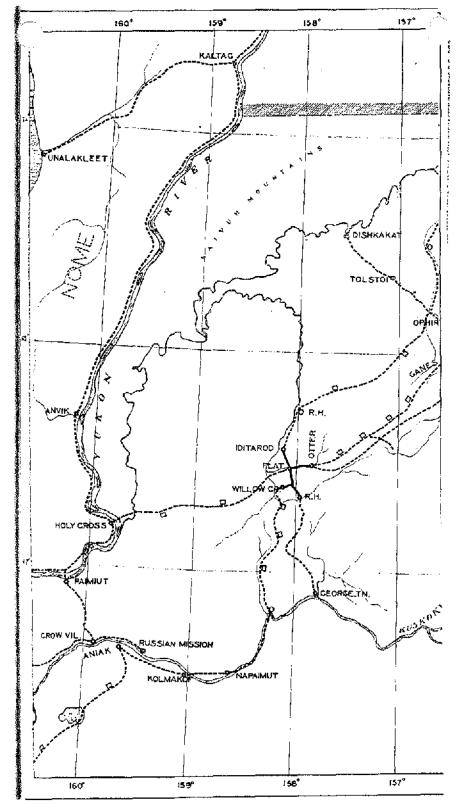
This district embraces the upper valley of the Kuskokwim River and extends west as far as the Yukon River, thus including the valleys of the Iditarod and Innoko Rivers. The chief mining operations are centered about Iditarod, Tokotna, and Ophir,

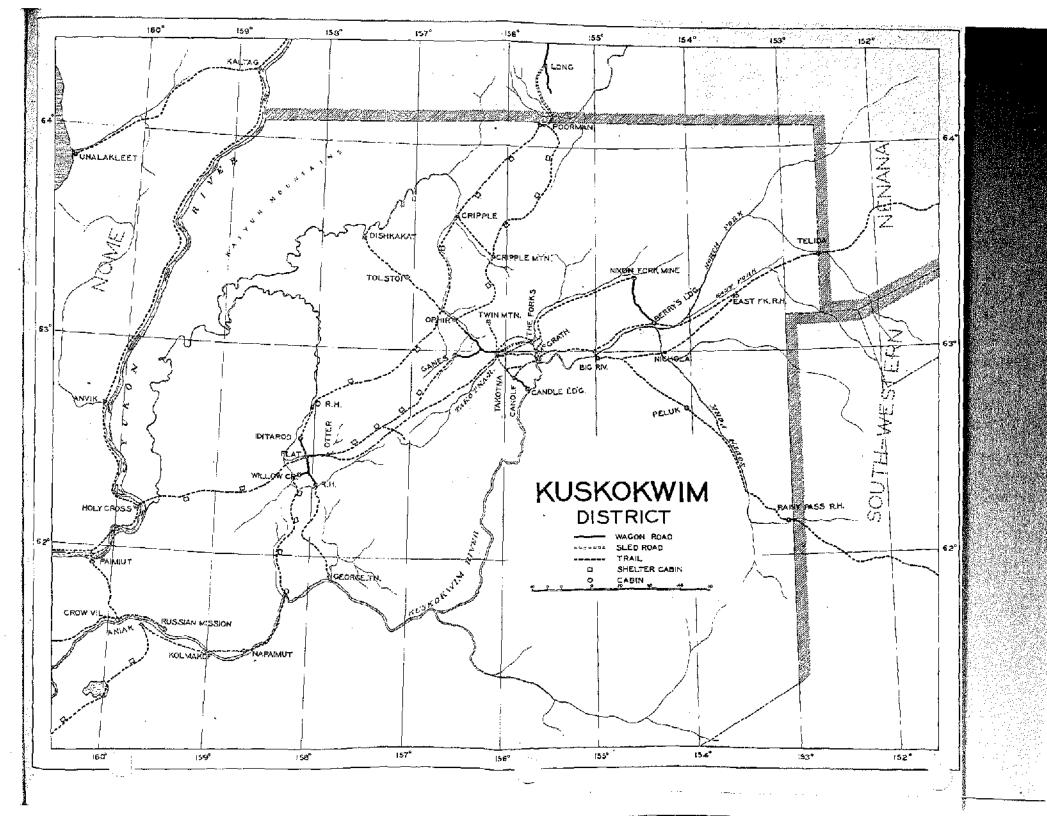
This district comprises one of the most inaccessible parts of Alaska. Freight for Tokotna and vicinity is sent by ship from Seattle to Bethel and thence by river boat up the Kuskokwim River. Freight for Iditarod and vicinity is sent by ship from Seattle to Seward, thence by rail to Nenana and by river 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- Projec		Wagon	Sled		Total
No.	Name of Route	Road	Road	Trail	Miles
20C	Rainy Pass-Big River	****		110	110
20DA	Tokotna-Ophir		19	••••	19
20DB	Ophir-Dishkaket			55	55
32A	Tekotna-Flat		P++4	95	95
32AA	Tokotna-Flat (via Moore Creek)			93 7	93
32AB 32AC	Fint-Moore Creek (Summer)				2 6
32AC 32B	Iditarod-Flat	8	••••	12	1 <u>.</u> 5
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	1714		5
33D	Head Flat Creek-Willow Creek	41 <u>/4</u> 3 3		****	4%
33 E	Willow Creek-Chicken Creek	3			S
33 F	Flat City-Otter Discovery	3	****		3
33G	Candle Landing-Candle Creek	9		****	5
33H	Flat Aviation Fleld			60	
34A	Flat-Holy Cross-Anvik		174.	80	Şu Su
34B	Iditarod-Shageluk-Anyik			75	75





28B	Poorman-Cripple			47	47
38C	Ophir-Cripple (Winter)		37-0	47	47
38D	Ophir-Tokotna	181/2			18%
38F	Poorman-Ophir		A	125	125
38G	Tokotna-Tokotna Landing	11/2	****	1017	11/2
38H	Ganes Creek Road	13	4***		13
64A	Cripple-Cripple Mt. (Summer)			12	12
64AA	Cripple-Cripple Mt. (Winter)		14		14
8UA	McGrath-Tokotna (Summer)			5	5
80AA	McGrath-Tokotna (Winter)			18	18
80E	McGrath-Telida			94	94
80C	McGrath-Candle Creek			11	11
80D	Nixon Fork-Nixon Mine	****		37	37
80 🖸	Tokotna-Twin Peaks			12	12
SuF	Medfra-Nixon Mine	13	****		13
8002	Nixon Fork-Tokotna (Summer)			151/2	151/4
SIIGG	Nixon Fork-Tokotna (Winter)		1416	20 /2	141/6
90D	Shelter Cubins				*** - 123
D-11 9.2	Control Control of the Control of th				
	Totals	77%	471/2	11561/2	128174

# SUMMARY OF EXPENDITURES

Number	Federal	Territorial	Construction	Maintenance	Total
20C		***********	***********		
20DA 20DB	\$ 396.43			3 <b>96.43</b>	396,43
32A	468,33			463.33	463.33
32AA	103.30			100.00	ruo.aa
32AB			/1-0-1		
32AC	74.89		/1-/	74.89	74.89
32B	6.258.20		\$ 3.858.20	2,400.00	6,258.20
32C	225.88		Q 0,000.20	225.88	235.88
32D	1.607.60		500.00	1.107.60	1,607,60
32DD		***************************************			1,001100
32E		\$ 1,691,19	1.691.19	***************************************	1.691.19
32F	1,950.26	,	1.650, 26	300.00	1.950.20
33C	623.80			833.80	623.80
33D	739.95		4-1-4	730.95	730.95
33E			***************************************		
33F	480.60		***************************************	480.60	480.60
33 C			***************************************		**************************************
33 H	(a)	1.200.00	1.200.00	Antaria	1,200,00
34.A					-44 ***********************************
3416	500.00		500,00	***************************************	500,00
38B	***************************************		***********		
38C	475.79			475.79	475.79
38D	28,558.16		23.008, 16	5,650.00	28,558.16
31916	702.59			702.59	702.59
38G	h	445-37-7-3-77		11717-7	
38H	*************	5.158.85	2.158.85	3,000,00	5.158.85
64 A.			************		************
64AA	611.05	***************************************	611.05		611.05
30A	60,20	***********	********	69.20	60.20
80AA	831.42	*********		831.42	831.42
808	408.20			408.90	408.90
81 C?		4. *** *** *** *** ***		******	************
8010			.,		***********
80 E	113.16		113.16	g-dd-14-1	113.36
S0F	************		4441111111111	*************	
81·C	160.56	***************************************		160.56	160.50
80 <b>GG</b>	108.16			108.16	168.16
911 <b>D</b>		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

<sup>(</sup>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.

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

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

38H—This project includes the former routes 28H and 381. Total length 13 miles wagon road.

64AA—This sled road branches from the Cripple-Poorman winter trail 3½ 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:

328—One mile of this road was surfaced. A branch road 200 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.

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

38D—The road was advanced 3½ miles during the season. The work included 3 miles graded, 2,620 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 bety and supplies to soble a	486.5
32AA	rritz Romanouse	New slove and pipe (neralled	25.00
320	prown Creek	New Stove nine installed	5.00
32C	rust Chance Capin	New Stove nine installed	5.00
الملاقات	Donian Creek	Corrugated from road planed	77.50
32D	Bonanza Creek	12x14 cabin built, stove and bunks	
		installed	346.50
38B	Silver Creak	Labor blacing corresponded iron woof	32.50
80D	Crooked Creek Hill	Roofing paper placed on roof	67.50
		Total	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 1925.

# DISTRIBUTION OF EXPENDITURES

Туре	Miles	Expenditure	Dollars per Mile
Wagon Road Sled Road Trall	52 47% 639%	\$41,810.56 1,115.64 5,624.32	\$ 804.95 23.49 8.79
Totals	739	\$48.550.52	\$ 65.70

# NOME DISTRICT.

E. F. Bauer, Acting Supt., July 1, 1925 to Feb. 1, 1926 Assistant Supt., Feb. 1 to June 30, 1926

Ross J. Kinney, Supt., Feb. 1 to June 30, 1926

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

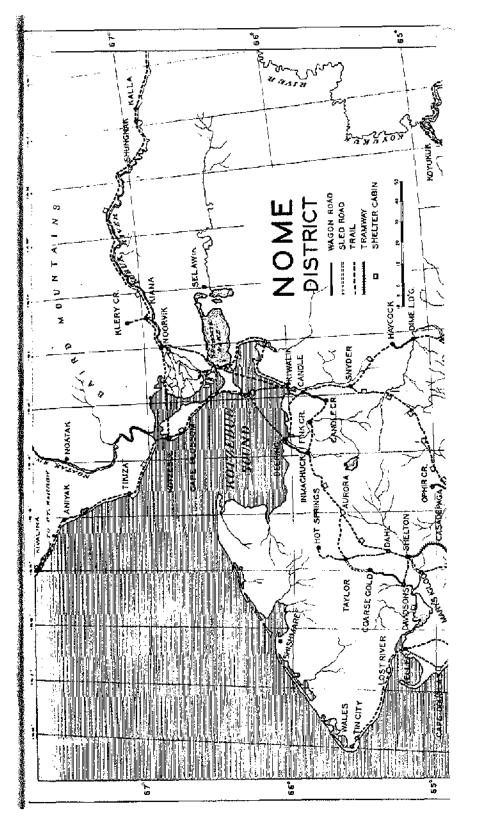
On account of the length and severity of the winter, the isolated location, and the lack of timber for protection and fuel. a considerable portion of the personnel of this District spend the winter outside, leaving on the last boat sailing from Nome the latter part of October and returning on the first 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 wither up streams in horse drawn scows in summer or over sled roads in winter.

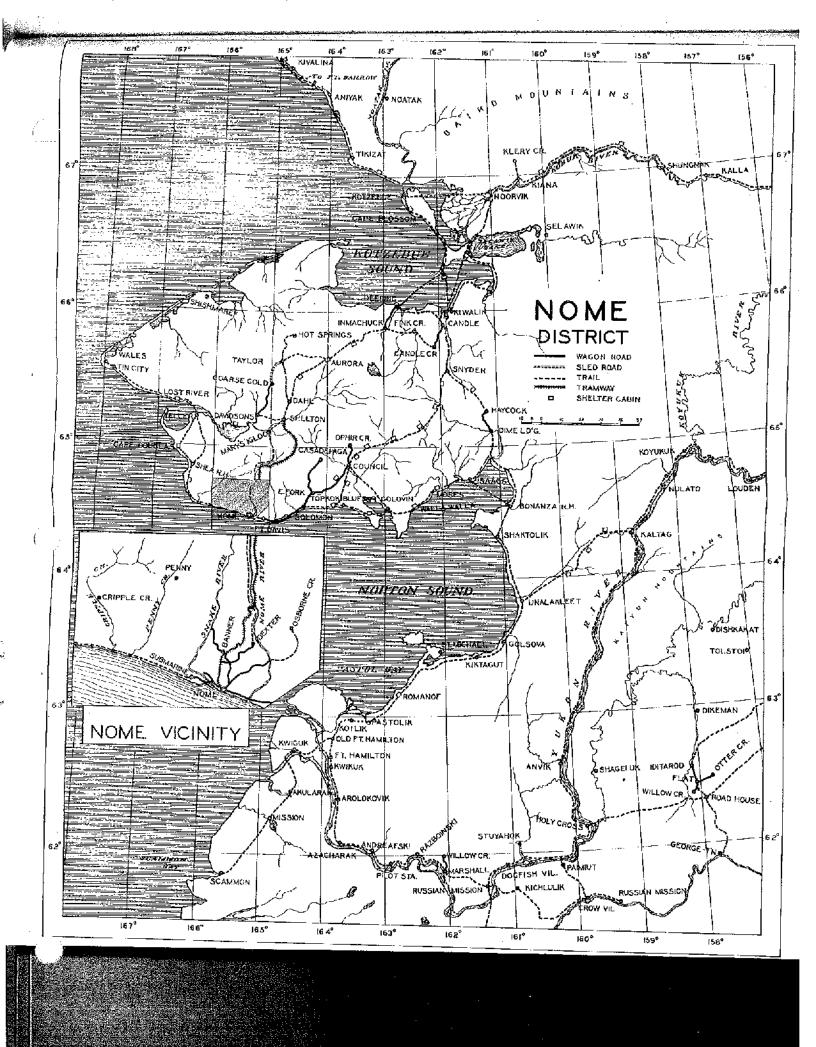
The most important projects are the system of local roads serving the extensive mining activities about Nome, the Nome-Shelton Tram and connecting trail extending on through Dahl to Deering and Candle, the road from Nome to Council and Casa de Paga, and the system of winter trails extending throughout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

Shelter cabins and ariation 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-		Wagon	Sled		Total
Projec	Name of Route	Road	Road	Trail	Miles
No.		57		25	82
8	Nome-Council	12			12
8D	Council-Ophir Creek	20			29
8H	Casa de Paga Road	20 5			5
8J	Shovel Creek	31,6		•	314
13A	Nome-Bessle	3 1/2	1.64		31.
13B	Bessle-Banner	2 72	•	****	2 2
13C	Bessie-Little Creek	5 1/2		****	514
13F	Nome-Osborne	5		****	5
13K	Bessie-Buster	•		280	280
18	Kaltag-Nome	•		240	240
18A	Bonanza-Kotzebue	.*	••••		240
18B	Golovin-Council			35	80
21	Unalakleet-St. Michael	***	****	80	Dri .
25 C	Nome-Wireless	,3⁄4	••••	****	,12
25)D	Mouth of Center Creek	2		****	2
35E	Submarine Paystreak	3			3 3
25F	Anvil-Glacier	3			
25 G	Snake River Extension	3			I
$25\mathrm{K}$	Nome City Wharf		****	****	
25 L	Nome Aviation Field	****		1**-	
$25\mathrm{M}$	Telephone Lines				•••
26	Candie-Candle Creek	6	****		6_
26A,	Kugruk River Approach	3/4		77.15	14
26B	Bear Creck Trall	-1-4		45	45
27	Deering-Inmachuk	25			25
28	Shelton-Candle Trail			152	152
28A.	Nome-Taylor	****		135	135
37	Topkok-Candle Winter Trail			154	2.54
41	Kiana-Cleary Creek			12	12
41.A.	Kotzebuc-Shungnak	••••		200	200
41 B	Kotzebue-Point Barrow			590	50.1
42	St. Michael-Kotlik Trail			70	70
49	Davidson's Landing-Taylor	24	16	·	40
62	Dime Creek	9			9
67	Nome-Teller		•••	80	SI.
67A.	Teller-Cape Prince of Wales			142	142
67 B	Teller-Bluestone			18	18
67C	Teller-Mary's Igloo		•••	40	41
68	Flogging Trails			712	712
73	Marshall Road	41/	150		414
73A	Kotlik-Marshall			190	190
73B	Stuyahok	****	11		11
73C	Scammon Bay Trail			89	89
89A	Seward Peninsula Railroad	87			87
90B	Shelter Cabins		1145		
w /12	ETACLES DEMISS MANAGEMENT AND				
	Totals	28032	27	3179	348015





SUMMARY OF EXPENDITURES.

Sub-Project Number	Federal	Territorial	Construction	Maintenance	Total
8	\$ 7,632.43	\$26,970,000	a) \$ 8,402.43	\$16,200.00	\$24,602.43
8TO		***************************************		**********	
8H	227.52	500.00	*************	727,52	727.52
8J		A 100 00		- 450.50	4 004 44
14A	2.831.90	3,500.00	4,931.90	1,400.00	6.331.90
13B	288.91	450.00	500.00	738.91	738.91 1,541.82
13C	641.83	900.00 90.00	500.00	1,041.82 $141.43$	1,5%1,62
13F 13K	51,42 1,821.95	2,806.00	3,121.95	1.500.00	4.621.95
18	1.169.88	1.800.00	2.000.00	969.88	2,969.88
18A	84.78	150.00	2,000.00	234.78	234.78
18B	,				207.10
21	62.28	100.00	,	162.28	162.28
25C	*		-4-11		102.20
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	590.09		963.53	963,53
25 K				manufacture (	
25L		2.500.00	2,500,00		2,500.00
25M		2.149.10		2.149.30	2,149.10
26	520.69	500.00		1,020,69	1,020,69
26A.	4841944194			-,	
26B	***************************************	1:	***************************************		
37	2,495.06	3.090.00	1.500.00	3.995.06	5,495.06
28		.,	***************************************	***************************************	A4 : 101 - FF1 : 17-TF
28A	155.68	300.00		455.68	455.68
37	************	F789.1881.1811.187	hate lder teams th	***************************************	
41		4 44			
41A		***********	,	4	
41 <b>B</b>	1,041.56	859.28	1,900.84	** ***	1,900.84
42			***************************************	**************	* 1 (2) (****************
49	1,016.84	1,600.00	************	2,616.84	2,616.84
62	1.50	1.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2.50	2.50
67	297.90	400.00	***************************************	697.90	697.90
67.A			***************************************	****************	
67 <b>B</b>	***************************************	***************************************			******

(a)—Includes \$5,740.28 miscellaneous refunds and reinbursements on account of improvement of Name Harbor.

\$46,561.46(b) \$36,850.33

1,100.00

7,049.25

1.754.55

2,609.90

700,00

2,672.08

4,643.40

17,400.00

\$58,760,38

917.53

4,043.40

1,100.00

2,672.08

25,049.25

\$95,610.71

1,443.40

.....

25,049,25

Totals......\$49,049.26

400,00

73

73B

73C

89A

#### DESCRIPTION

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

25K—This dock, located inside the jettles 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.

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

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 cordaroy 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.

68-3681/2 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
g	East Fork Solomon Stove	19.51
8 18	Fox RiverWood delivery	50.00
18	Topkok	62.40
18	Moses	117.60
18	CheokukRepairs	25.00
18	Whaleback	350.00
18	Walla Walla,Cabin and dog barn reconstructed,	• • • •
	stove, etc.	217.50
18	Kaltag Mile 22Cabin and stove	350.00
18.A.	Quartz Cr. Stove, etc.	22.45
18A	CallahansRepairs, stove and wood	87.80
18.A.	Choris Pen. Materials	5.35
18A	Arctic Circle Stove	15.00
28.A.	Nome RiverOutht car	112.62
41A	Hunt River Cabin bullt	298.00
41B	AukilukRepairs	103.80
41B	Kivalina	100.00
iiB	Tulukuk Materials and Freight	175.00
41B	Head Choris Peninsula Materials and Freight	175.00
67	Cape Douglas and	110.00
91	WoolleyRepairs	186.00
67A.	Lost River anterials for barn	39.05
67C	Agrapuk Repairs, Cabla and bara	
976	ASSETTION FURNIS, ORDER MINI MINI MINI MINI	1.00.00

#### 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 specders. 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 tens. 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

Туре	Miles	Expenditure	Unit Cost Dollars per Mile
Wagon Road	1711/2	\$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	3 <b>6</b> 8½	4,043.40	10.97
Totals	2,052	\$88,289.53	\$ 43.03

# SUMMARY OF FUNDS EXPENDED BY DISTRICTS.

	COOPERATIVE FUNDS			
District	Federal	Territorial	Tota:	
Juneau Headquarters Southeastern \$ Eagle	32,649.82(a)	\$ 24,577.01(b) 845.13	S 67,226.83	
Bethel	2.957.45	449.00	845.12 449.00 19.507.45	
Chitina	6.876.35	7,560.00 4,283.22	11,159.57 8,102.42	
Nenana	3,051.88 8,101.48	5,040.54(c) 15,235.15	23,336,63	
Kuskokwim	20,192,87	18,786.81(d) 9,095.56	38,979.68 9,095,56	
Nome	49,049.25	45,5 <b>61.</b> 46 (e)	95,610,71	
Totals\$	122,889.10	\$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 \$802.00 from the Fairbanks Exploration Co. and \$955.00 from the City of Fairbanks, on account of furnishing gravel from dragline.
- (d)-Hucludes \$500.00 reimbursement from Alaska Railroad on account of Moose Creed road work in 1925.
- (e)—Includes \$5.740.28 miscellaneous refunds and reimbursements on account of improvement of Nome Harbor.

#### TOTAL FUNDS

District Juneau Office and Ge	Construction	Maintenance	Total
		\$ 22,100.00 15,059.66	\$ 34,317.29 57,226.83
Eagle Bethel	9,025.27	10,303.58	19,329.83 3,368.91
Valdez Chitina	114,850.69	79,147,44 101,746,29	193,998.13 246.196.20
Fairbanks	286,714.96	112,210,19 28,997,65	398.925.15 59.973.32
Southwestern	112,344.08	35,589.75	147,933.88
Nome		18,313,60 58,760,38	54,437,40 95,610.71
Totals	\$828,045.38	\$483,272,31	\$1,311.317.69

\*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, trainway, 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 transway,

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 CON-GRESS 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 Chilkoo: 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 1926. \$7,500 were expended.

# Lowell Creek Survey.

At the request of the Secretary of the Interior dated May 16, 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 relined 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 wouchers received and placed in the account, including June 30, 1926.

#### RECEIPTS

Received since from:	
War Warrants	103,548,29
Transfers from Officers	1 252 646 56
Sales, etc., Alaska Fund	. 1,404,040,00
Rain bureamones	11.885.47*
Reimbursements	9,279.09
Refunds	719.85
Contributions	2,672,00
Tobil DEDUCTIONS:	\$1,427,112.58
EBDOCITORS.	
Deposited to credit of Trensurer of United           States Balance on hand close f.y. 1935         \$46.390.32           Sales, etc., Alaska Fund         11.385.47           Reimbursements         9.279.09           Refunds         710.85           Deposit of Contributions         2,872.96	70 <b>.937.</b> 78
	\$1,856,174.85
DISBURSEMENTS	

# EXPENDITURES IN DETAIL.

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

	by the Territory of A	MIASKA ANU	Others	
Acet. No.		onstruction	Maintenance	Totals
3A 3B	Haines-Wells		\$ 6,025,14 \$	8,085.14
ав	Sec. Pleasant Camp Extension, 2nd	13,050.00	5,120,00	18,170.00
3B	Sec. Pleasont Camp Extension, 3rd	15,500.00	P	<b>15,500.0</b> 0
3C	Sec. Porcupine Extension	7,511.69	25.00	7,511.69 25.00
3D	Haines-Mud Bay		2 <b>61.75</b>	261.75
žΕ	Haines-Chilkool		64.50	64.50
4BA	Valdez-Ptarmigan Drop, 1st Sec.	9.700.00	9,200,00	18.990.00
4BA	Valdez-Ptarmigran Drop, 2nd Sec.	11,200.00	8,000.00	19,200.00
<b>∢</b> BA	Valdez-Ptarinigran Drop 3rd.	10,635,00	7,300.00	<b>17,935</b> .00
4BA	Valdez-Ptarmigun Drop, 4th	14,070,00	5,060.00	19,130.00
4BA	Valdez-Plarmigan Drop, 5th Sec.	15,130.68	3,009.50	18,330.68
4BB	Pinradean Drop-Ernesting, 1st		•	
4BB	Sec. Ptarmigan Drop-Ernestine, 2nd	8,300.00	8,939.00	16,330.00
4BB	Sec. Ptarmigan Drop-Ernestine, 3rd	<b>9.520.</b> 69	10,100.00	19,626.60
4C	Sec. Ernestine-Willow Creek, 1st	7,227.69	19,942.00	17,269.69
4C	Sec	10,120.00	8,520.00	18,650.00
	Ernestine-Willow Creek, 2nd Sec.	12,130,31	6,205.00	18,335,31
4D	Willow Creek-Gulkana, 1st Sec.	12,200.00	6,300.00	18.590.09
4D	Willow Crock-Gulkana, 2nd Sec.	14,204.39	4,960.06	19.104.39
4D	Willow Creek-Culkana, 3rd Sec.	13,100.00	4,000.00	17,100.00
4F;	Galkana-Sourdough Sourdough-Mile 163 Mile 168-Delta River, 1st Sec Mile 168-Delta River, 2nd Sec	500.00	7.816.29	8,316.20
4F	Sourdough-Mile 168	8,754.59	5,400.00	14,154.59
4 G	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 Delta River-Rapids, 2nd Sec Delta River-Rapids, 3nd Sec Rapids-Grundler, 1st Sec Rapids-Grundler, 2nd Sec	7,250.00	9,100.00	16,350.00
4H1	Delta River-Rapids, 2nd Sec	9,300.00	8,200.00	17,500.00
4H1	Delta River-Ripids, and Sec	8,101.57 9,210.00	9.020.00 19.150.00	17,121.57
4H2 4H2	Daniela Competer and Con-	19,307.69	9,050,00	19.360.00 19.357.69
	Compaling Dishardson, 1st Sec.	8,500,00	4,260.00	12,700.00
41 41	Grundler-Richardson, 1st Sec Grundler-Richardson, 2nd Sec	6,690,00	5,720,00	12.410.00
4J	Richardson-Salchaket, 1st Sec.	10,500.00	5,430,00	15,920.60
4J	Richardson-Salchaket, 2nd Sec.	8,180.09	7,600.00	15,780.00
4J	Richardson-Salchaket 2rd Sec.	10,402,64	5.130.00	15,592.64
4K	Richardson-Salchaket, 3rd Sec. Salchaket-Fairbanks, 1st Sec.		9,210,00	9,210.00
4K	Salchuket-Fairbanks, 2nd Sec	15,077.92	4,020,00	19,097.92
4KA	Salcha Bridge	12,207.89	2,725,00	14.932.89
5A.	Dunbar-Fort Gibbon Willow Creek-Tonsina, 1st Sec. Willow Creek-Tonsina, 2nd Sec.		1,440,48	1,440.48
6A	Willow Creek-Tonsina, 1st Sec.	7,600,00	3,275.00	10,875.00
6A	Willow Creek-Tonsing, 2nd Sec.	8,035.85	2,475.90	10,510,85
6B	Tonsina-Chitina Chitina Depot	5,220.08	7,220.00	12,440.08
6D	Chitina Depot	3,389.78	750.00	4.139.78
7A	Summit-Chatanika Ester Creek	8,354.40	4,500,00	12.854.40
7D	Ester Creek	920.00	2,279.01	3.199.01
7G	Farbanks-Gilmore, 1st Sec Fairbanks-Gilmore, 2nd Sec	13,427.00	3,800,00	17,227.00
7G	Fairpanks-Gimore, and Sec	14,503.87	2,700.00 3,100.00	17,203.87 $7,614.38$
71	Cilmore Summit	4,514.38 <b>5</b> 00.00	3,100,00 1,203,06	1.703.06
7.J 7.Y	Fairbanks-Chena Hot Springs., Fairbanks-Wireless Road	500,00	1,205.00 15.00	15.09
1.4	Nome-Council, 1st Sec.		14.050.00	16.050.00
8	Nome-Council, 2nd Sec.	6.402.43	2,150,00	S.552.43
9	51000c-country and new transmi	Gyreyay eg	MARKETTA TO	O, OOM TO

<sup>\*-</sup>Does not include \$72.36-collections by General Accounting Office.

<sup>\*\*—</sup>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.

Acet.				
No.	Name of Route C		Maintenance	Totals
ŞН	Casa de Paga	***************************************	727.53	727.53
114	#IN THE ALL A PARTY		1,535.30	1,535.89
HAA	Amorican Summit-King Solo-			_,
4477			1,069.00	5,429.14
11.B 11.C	Liberty-Fortymile Steel Creek-Jack Wade Steel Creek-Jack Wade (Summer) Sinel Creek-Wallice's Fort		171.50	171,50
1100	Stool Cease Inels Wide	F018 F03F 1 P3F4 P8	325.26	325,25
13.4 -1,7	mank translation trade (Seni-		162.50	162.58
HD	Strel Crack-Walter's Fork Eagle-Seventymile Jack Wade-Chicker Steel Creek-Canyon Creek Liberty Cubin Torns	**************	308.20	308,20
1:12	Eagle-Seventyralie	916.00	1.301.80	2,211.80
11.F	Jack Wade-Chicken	B*7644344	814,26	814.20
11 G	Steel Creek-Canyon Creek	Ar Warrings	92.00	32.50
11.H			77.15	77,15
11I 11L	Domestel Creek	500.00	1,485.49	1,985.49
11M	Franklin-Chicken Crock Jack Wade - Walker's Fork	mt #244	156.50	156,50
11391	Jack Wade - Walker's Fork (Summer)		107.06	
11MM	Jack Wales Mouth of Wallon's	+6> ++++=	1,25.69	125,00
W. W. W. C. C.	Jack Wade-Mouth of Wulker's Fork		114.50	542.25
13A	Norce-Bessia	4,931.90	1,400.00	114.50 6,331.90
1333	Note-Bessia Bessic-Banner		738.91	739.31
13C		500.00	1.041.82	1,541.83
13₽	Nome-Ostorne		7A: 49	141.42
13.K	Nome-Ostorns Ecssis-Buster Sitks National Monument Sitks National Cemetery Circle-Miller House	2 444 65	1,500,00	4,621.95
144	Sitks National Monument	300,00	1,272,65	1,573.65
1413	Sitka National Cemetery	+00.00	631.82	781.82
15 16	Circle-Miller House		3.185.91	3,135,91
TIE	Contractivities and the Trouble Two	0 04 A 5 C	****	
16	Sec. Chatanika-Miller Flouse, 2nd	\$.219.90	10,130.00	18,340.90
	582	16,127,00	3,000,00	19,127,00
16	Chatanika-Miller House, 3rd	50° 573° 50°	3.000.00	18/12/,00
	200.	17,800.00	2,809,00	19,809,96
16	Chatanika-Miller House, 4th		wie de sis é	* ************************************
	594°C.	19,726.00	**************************************	19,725.00
3.6	Chatanika-Miller House, 5th			
16		19,910.00	***************************************	1.9,910.00
18	Chafanika-Miller House, 6th Sec.	44 400 44		
16	Chains Miller Herry	19.650.00	45941.1.0.1.00	19,860,10
70	Chatanika-Miller House, 7th	19,975.00		******
16	Chatanica Willer House Cik	19,575.00		19,975,60
	Chatanika-Miller House, Sib	19.703.48	National management (1)	19,763,48
17 18	Fort Gibbon-Kaltag	2011 001 10	514.00	514.00
	ENGLES I AS AFTER ON CONTRICT	2,000,00	969.83	2,969,88
18A	Bonanga-Kotzebue	,,.	234.78	234,78
2010 A	Bonangg-Kotzebue Tokeina-Ophir Unalakiogt-Si Michael		396.43	356.43
21	Unalakteet-St. Michael		162.28	182.28
22 23A	Hot Springs-Sullivan Creek	*******	3,075.95	3,075.∳\$
23B	Snowshoe-Beaver Beaver-Caro	* ***********	916.81	916.31
23.C	The Court	5,250,00	9.330.10	14,470,10
23 D	Big Creek Caro-Flat Creek Mouth of Center Creek	1,060.00	967.57	1,967.57
250	Mouth of Cleater Crople	,	529.32 122.15	529.32
SEE		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	359,39	1,99,15
25 F	Anvil-Gineier	1.488.41	<b>9</b> 00.00	269.23 2,289.41
#G	Snake Edver Extension	*1700111	963.53	963.53
35 L.	Norre Aviation Field	2,500,00	4	2,500,00
25M	Seward Peninsula Telephone			
A 14	Anvil-Gineter Snake River Extension Nome Aviation Field Seward Peninsula Telephone Lines		2.149.10	2,149,10
26	Candle-Candle Creek		1,020.69	1.020,69
27	Deering-Inmachuk	1,500.00	3.395.66	5.495.95
23.A. 23	Candie-Candis Creek Deering-Irmachuk Nome-Taylor Fort Gibben-Eettles Buttles-Coldfool	************	155.63	455.68
20 A	Partition California	Part 84 Mark day	786.75	780.75
307C	i ford Speed town I marefred themen	1 1000 000	120.75	130.75
30A.	Hot Springs Taffe	1 g (44) (4) (4) (4) (4) (4) (4) (4) (4) (4	5,473,77 658,47	6.973.77
31	Carlbon Creek	V6-1/2-1/08	125.71	1,258.47
32A	Tokoina-Ffat (Summer)	,	462.33	4463.233 4463.233
33A C	ibit Springs Landing Eureka Hot Springs Tofty Carlbon Creek Tokoina-Fiat (Summer) Candle Creek-Tokotna		74.83	74,49

Acct.				
No.	Name of Route	ionstruction		Totals
32B	Iditared-Flat Ophir-Iditared (Winter) Flat-Creeked Creek (Winter) Toketha Aviation Flat	3,858.20	2,400.00 225.88	6,258.20 £25.88
32C 32D	Plat-Cranked Creek (Winter)	500.00	1.107.60	1,607,60
22 E	Toketna Aviation Field	1,691.19	4-344.74.1 bit 43534+	1.691.19
32F	Tokotna Depot	1,650.26	205.50	1,950.26
28C	Flat-Crooked Creek (Winter). Toketna Aviation Field Toketna Depot Flat Crey-Flet Creek Head Flat Creek-Willow Creek Flat icty-Otter Discovery Flat Aviation Field leitered-Shagaluk Arghouse: Extension	T-C-070147017007	627.80 780.95	623.23 730.35
33D	Head Plat Creek-Willow Creek		480.60	480.60
33H	Flat Aviation Field	1.280.00	H45749544994444	1,200.00
34B	Iditared-Shageluk	500.00		550,60
35A	Archange Extension Shorry Stanon	1,200.00 1,119.32	1,767.42	2,967.42 1,119.32
35AA 35AB			227 2874 2474 34744 March 1984 24747	194.20
33 D	Willow Creek Extension Wasilla-Fishhook Wasilla-Kulk Wasilla-Finger Lake-Paimer	**************************************	2,865,60	2,965.60
3570	Wasillo-Fishbook	***************	4,284.53	4,284,58
35 F*	Wasing-Knik	2,616.00	2,956.52	4,665,62 220,30
35H 35J	Washington Lake-Frimer	3,520,09	229.30 2.317.62	5,837,62
35K	Maranaska Trunk Road	0,024,49	391.50	391.50
26N	Wasilia-Matanuska Matanuska Trunk Rond Houston-Willow Creak Mineral Creek	TTT->701643>4497	249.60	249,00
38	Mineral Creck	6,817,01	3,341,00	10,158.01
36A			349.44	349.44
38A 38C	Kuny-Long	************	4,183.79 475.79	4,183,79 475,79
380	Onhir Toxoton 1st Sec.	15,240.00	2,340.00	12,580.00
38D	Ophir-Teketes, 2nd Sec.	12,768.16	3,219.99	15,978.16
28E	Loug-Poorman (Summer)	11,725.58	2,360,00	13.925.88
28F	Ruby-Long Ophir-Cripple Ophir-Tozotna, 1st Sec. Ophir-Tozotna, 2nd Sec. Long-Poorman (Summer) Poorman-Ophir	A *** Ar	702.59	902.59
3811 38K	Ganes Creek Read Ruby Aviation Field	6,±00,000	3,000.00	5,159.85 660,00
411	Danielas-Garinson Channel	2.102.16	\$00.00	2.902.18
41 B	Douglas-Gastmeau Channel	1,000.84	*******	1,990.84
44A	Skagwny-Emuggler's Cove	E4C724 > 004 > 4040 A	658.80	\$ <b>58.</b> 80
46	Kobi-Eureks	4 P Feb. 2 A	659,75	659.75
46D	McKinley Park Roud, 180 Sec.	15,230,00 18,260,06	49.16	15,279.16 18,200.00
46D 46D	McKinisy Park Roud, 2nd Sec.	19.060.24	E747 C1477 444 A444	19,060.24
46E	McKinley Park Road, Lat Sec. McKinley Park Road, 2nd Sec. McKinley Park Road, 3rd Sec. Diamond-Telida	400000000000000000000000000000000000000	968,89	968,88
45F	Neuma Cemetery Kobi-Bonnifield Lake Minchumins Aviation	31-4C1284+ down 444	619.20	619,20
18 <u>14</u>	Kobi-Bonnineld		60,90	60.90
特民	Lare Minensing Aviston	<b>ታደብ</b> ለክ		756.00
47	Field Coldfoot-Wiscown Wiscown Aviation Field Uliamna Bay-liamna Lake Dayldson's Landing-Taylor Tallecotna-Cache Creek Cache Creek Trail Peters Creek Trail Peters Creek Trail Facta-Circle	190,00	657.24	657.24
47A.	Wineman Aviation Field	2,000.00		2,696,60
48	Illamna Bay-Illamna Lake	6,770,60	725.00	6,495.00
48	Dayldson's Landing-Taylor	Distriction and	2.616.84 0.000 10	2,616.84
51 51A	Canha Chak Trett	1.270.00	8,229.12 706.28	10.229.12 1.976.28
518	Peters Creek Trall	2.807.93	620.00	4,427,93
51 C	Upper Yentha	1.114.91		1,114.91
53	Eagle-Circle Circle-Fort Yukon Fort Yukon Aviation Field	743,00	941.78	1,683.78
53A	Circle-Fort Yukon	3 950 66	1,219,85	1,219.65 1,190.82
5313 44	Chisana-Nizina	1,190.89 770.19		776.10
58	Kenal-Russian River	1.200.00	1,908.37	2,103,87
57	McCarthy-Nizine	9,291.88	6,220.00	15.021.88
57 <b>A</b> .	Minima Divon Buldon	2,000,60	3.876.25	6.676.35
59	Pairbanks Dridge	5 445 00	13.85	13.85
59A	Pairbinks Laget	3,402,09	1,331,44	3,043.69 1,321.44
\$1 62	Feirbanks Bridge Fairbanks Dopot Streinn-Kuskulana Dime Creek	. /	2.50	2,50
53	Dinbar-Ercoks	3.500.00	1,705.92	4,306.03
$60\mathbf{B}$	Brooks-Anny Greek	**** **** ***, ***	277.10	277.10
83C			4,190,59	4,190.59
58 <b>19</b> 54AA	Colorda Celeda - Macernia	294.00 611.05 12.500.00		294.04 610.05
66A	Calkana-Chistachim. 1st See	12,500.00 3,500.06	2.185.69	15,6%5,00
35A	Galkana-Chistochina, 2nd Sec	3,000.06		5,696.06
65D	Erocks Train Livengeed Aviation Field Cripple-Cripple Moentain Gulkana-Chistochina, Ist Sec. Ketchurastuk-Tanana Crossing. Chicken-Ketchurastuk	************	\$07.00	<b>3</b> 07.00
65E	Chicken-Ketchumstok	*************	144.50	344.50

#### Acct. No. Name of Route Construction Maintenance 65F Grundler-Tanana Crossing ....... 602.26602.26Slana-Chisana Reconnaissance... 385.04 385,04 65C 67Nome-Teller 697.90 697.90 68 Flagging Trails ..... 4,043.40 4,043,40 Old Hamilton-Scammon Bay .... 73C 1,100,60 Anchorage-Eagle River Anchorage-Whitney 5.800.00 4.973.60 10,773,60 1,500.00 5,127,47 Anchorage Warehouse 75D 427.98 437.98 75E McDonald Road 755.13 21.00 150.00 Cantwell-Valdez Creek 21.00 76 Seward Warehouse 79 **16.**00 16.50 Minchumina Portage Recon. .... 500.60 McGrath-Tokotne (Summer) .... 60.20 60.20 80AA McGrath-Tokotna (Winter) ... 831.42 831.42 McGrath-Telida ..... 408,90 49**8**.90 Tokotna-Twin Peaks ...... 113,16 113,16 80G Tokotna-Nixon Fork (Summer) 160.56 160.50 ...... Tokotna-Nixon Fork (Winter) 80GG 108.16 108.16Good Creek-Salmon River ...... 1,493,32 81 300.00 1.793.32 Fourth of July Creek ..... 86 1.040.39 600.00 440.39 Ferry-Eva Creek Seward Peninsula Raliroad, 1st 1,400.00 11,565,79 10,155.79 Sec. 7,649,25 4,200.00 11,849,25 Seward Peninsula Ralfroad, 2nd 13,200.00 13.200.00 Sec. ...... Shelter Cabins, 2nd Division .... 1,754.55 917.63 2,672.68 Shelter Cabins, 3rd Division .... 417.303,279.03 Shelter Cabins, 4th Division .... 432.70 3,773.34 3,340,60 112.60 92A Bethel-Quinbugak ..... 112.69 Bethel-Akiak ..... 222.77Crooked Creek-Anjak ..... 277.42 277.42 92M Aniak-Tuluksak 25.00 25.00Akiak-Canyon Creek ..... 306.00 306.40 Tuluksak-Bear Creek ..... 1.185.12 920 1.185.12 92P Holy Cross-Kaltshak ..... 500.00500.30 116.29 Chulitna Trail 116.29 Bull River Trail 1.183.51 200.00 1,383.51 Indian River Footbridge ..... 4.0013.754.29 500.00 14,254.29 Kodiak-Abberts Kanatak-Becharof Lake ..... 50.7550.75 Chlekuloon-King River 413.66 413,58 Homer Project 7.382.577,382.57 Nuka Bay ..... 4,302.86 98 A 4.302.66Juneau Office and General 22,100.00 34,317.29 \$828.045.38 \$483.272.31 \$1,311,317.59 Totals .....

## EXPENDITURES IN DETAIL—COOPERATIVE FUND.

(included in Preceding Table.)

#### FIRST DIVISION.

Acct. No.	Name of Route	Federal	Territorial	Total
3.4.	Haines-Wells\$	6,885.14	\$ 1,200.00	8 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
14.4.	Sitka National Monument	610.64	962.01(b)	1,572,65
14B	Sitka National Cemetery	531.82(c)		781.82
40	Douglas-Gastineau Channel	1.702.16	1,200.00	2,902.16
44A	Skugway-Smuggler's Cove	358.80	200.00	558.80
81	Good Creek-Salmon River	693.32	1,100.00	1,793.32
	Totals	22,649.82	\$ 24,577.01	57,226.83

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

(b)-Includes \$552.01 contributed by the National Park Service.

(e)-Includes \$290.17 allotted by the Quartermaster General.

#### SECOND DIVISION.

Acct.	Name of Route	Federal	Territorial	Total
8	Nome-Council		\$ 16,970.00(d) \$	
8HI	Casa de Para Road	227.53	500.00	727.52
13.A.	Nome-Bessie	2.831.90	3,500,00	6,331,90
13B	Bessie-Banner	288.91	450.00	738.91
13C	Bessie-Litle Creek	641.82	900.00	1,541.82
13F	Nome-Osborne	51.42	90.00	141.42
13K	Bessie-Buster	1.821.95	2,800.00	4.621.95
18	Kaltag-Nome	1,169.88	1,800.00	2,969.88
18A	Bonanza-Kotzebue	84.78	150.00	234,78
21	Unalakleet-St. Michael	62.28	160.00	162.28
25D	Mouth of Center Creek	42.15	80.00	122.15
25E	Submarine Paystreak	119.39	240.00	359.39
25 F	Anvil-Clacler	1,189.41	1,200.00	2,389.41
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	2,495.06	3,000.00	5,495.0G
28A	Nome-Taylor	1 <b>55.6</b> 8	300.00	455.68
41B	Kotzebue-Pt. Barrow	1,041.56	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	409.90	697.90
68	Flagging Trails	1,443.40	2,600.00	4,043,40
73C	Scammon Bay Trail	400.00	700.00	1,100.00
Ae8	Seward Peninsula Railroad	25,049.25		25,049,25
90B	Shelter Cabins		3,672.08	2,672.08
	Totals\$	49,049.25	\$ 46,561,46(e) \$	95,610.71

<sup>(</sup>d)—Includes \$5,740.28 miscellaneous refunds and reimbursements on account of improvement of Nome Harbor.

<sup>(</sup>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	Tota!
35J	Wasilla-Matanuska	2.159.06	\$ 3,678.56	\$ 5,837.62
36 36 A.	Mineral Creek-Valdez	<b>2,957.4</b> 5	7,200.56	10,158.01
55 AL	Kenal-Russian River	1,908.87	$349.44 \\ 1.200.00$	349.44 3.108.87
57.A.	Nizina Bridge	6.876.35		6,876.35
61	Streina-Kuskulana		1,321.44	1,321.44
75	Auchorage-Eagle River	7,078.60	3,709.00(f)	10,773,60
75B	Anchorage-Whitney	3,027.47	2,100.00	5,127,47
75E	McDonald Road	455.13	300.00	755.12
90C	Shelter Cabins	**********	3,270,03	3,270,03
93.A.	Bull River Trail	783.51	600.00	1,383.51
98	Homer-Kachemak	3,482,57	3.900.00	7.382.57
98.A.	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(g) \$	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
$32\mathbf{E}$	Tokotna Aviation Field	****	1,691,19	1.691.19
33I <del>I</del>	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
46F	Nenana Cemetery	219.20	400.00	619.20
. 46H	Lake Minchumina Aviation		100100	013,20
	Field		750.00	759,001
47A	Wiseman Avlation Field	************	2.000.00	2,000,00
.53B.	Fort Yukon Aviation Field	*	1,190,89	1,190,89
63	Dunbar-Brooks	222 19	3.972.90	4,206,02
63B	Brooks-Amy Creek		277.10	277.10
63C	Brooks Tran	4.190.59		4.190.59
63E	Livengood Aviation Field	7.100.474	294.00	294 (m
90D	Shelter Cables		3.773.30	
			0,710.00	3,773,30
	Totals	11 162 26	\$ 30.656.38	41 070 71
	—	11,100.00	φ ου.υ-ου.35 \$	41,879,74

(g)—Includes \$802 from Fairbanks Exploration Company and \$965 from the City of Fairbanks on account of furnishing gravel from dragline.

# SUMMARY,

First Division         Federal           Second Division         \$2,649.82           Third Division         49,049.25           Pourth Division         11,163.36	46,561.46 30,620.03	Total \$ 57,226,82 95,610,71 66,648,75 41,819,74
Totals \$122,889.16	\$132,414.88	8255.302.98

# DISTRIBUTION OF EXPENDITURES.

	DISTRIBUTION OF EXPENDITURES.	
0111	Salaries	63.276.86
0112	Wages	574,429.35
0200	Stationery	1,414.74
02013	Other Office Supplies Medical and Hospital Supplies	413.36
0210	Medical and Hospital Supplies	163.14
0220	Scientific and Educational Supplies	16.25
0230	Fuel (including gasoline and oils)	37, <b>315</b> .15 37.50
0240 0250	Fuel (including gasoline and oils) Wearing Apparel Forage and Other Supplies for Animals	30.499.07
0260	Provisions	134,204.55
0270	Powder, explosives, etc.	3,965.26
0280	Sundry Supplies (Including lubricants, etc.)	17,458,66
0290	Construction Materials	84,163.65
03	Construction Materials Subsistence (persons)	47,803.37
04	Subsistence and care of animals	1,105.70
0500	Telegraph Service Telephone 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 Printing and Binding	72,978.90
0890 0810	Lithographian Exception of	1,009.00 0.0 <b>0</b>
0830	Lithographing, Engraving, etc.  Photographing, Making Prints, etc.  Furnishing of Heat, Light, Power and Water	340.79
19	Furnishing of Flact Light Power and Water	1,756.66
1106	Renta (building structure room etc.)	2.780.00
1110	Rents (building, structure, room, etc.)  Other Rents (inc. hire of teams, rent motor equip.)  Repulrs and Alterations to Equipment, Machinery, etc.	57,448.05
12	Repairs and Alterations to Equipment, Machinery, etc.	51,737.34
13	Miscenaneous Current Expenses (inc. exchange, etc.)	4.963.56
3010	Equipment, (furniture and fixtures)	5,632.32
3040	Livestock (horses, dogs, etc.) Other Equipment	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
	<del>-</del>	····
	\$	1,311,317,69
	DISTRIBUTION BY APPROPRIATIONS.	
From a	appropriations for support of War Department:	
F.Y	. 1923-1924, Act of March 2, 1923	161.93
F.Y	. 1923-1924, Act of March 2, 1923	158.29
$\mathbf{F}$ . Y	. 1925-26, Act of February 12, 1925	748,389,69
F.X	. 1926-27, Act of April 16, 1926	264,867.62
Nai	donal Cemeteries, 1925	2,17
_ Nan	donal Cemeteries, 1926	288.90
From t	he Alaska Fund, Act of Jan. 27, 1905, as amended	115,035,11
From (	Contributed Funds, Act of June 30, 1921:	
Ter	ritory of Alaska, Roads, Bridges and Trails\$107,505.28	
	Aviation Fields 10,226.08	
	Aviation Fields 10,226.08 Shelter Cabins 9,715.41	100 FOE PG
	Aviation Fields         10,226.08           Shelter Cabins         9,715.41           Telephone Lines         2,143.10	129,595.87
O+h	Telephone Lines	129,595.87
Oth	Telephone Lines	129,595.87
Oth	Telephone Lines	129,595.87
Oth	Telephone Lines	
Oth	retephone Lines 2,143.10  ters. The Alaska Railroad \$500.00  National Park Service, Sitka 562.01  Fairbanks Exploration Company 802.00	129,595.87 2,819.01
	Telephone Lines	
From s	retephone Lines 2,149.10  ters. The Alaska Rallroad 500.00  National Park Service. Sitka 562.01  Fairbanks Exploration Company 802.00  City of Fairbanks 955.00  appropriations for support of Interior Dept.:	2,819.01
From s	Tetephone Lines         2,149.10           ters. The Alaska Railroad         \$ 500.00           National Park Service. Sitka         562.01           Fairbanks Exploration Company         802.00           City of Fairbanks         955.00	

Total \_\_\_\_\_\$1,311,317.69

# DISTRIBUTION OF WAR DEPARTMENT APPROPRIATIONS BY PROCUREMENT AUTHORITY NUMBERS.

Act of February 12, 1	1925		
Authority No.			
Eng.235P-920-A1070-5	6°′		
1387	***********	<b>8,969</b> .03	
3316			Hebsirs and alterations
4275	*******	443,491,95	Wages-all employees.
4568		56,249.83	Installation of roads, walks.
			bridges and drainage,
4586	10-000111-0000	7,935,61	Construction of drainage,
		*1080.01	Construction of trumways, fer- ries and trails.
4625		28,604,39	The and trails,
	*	20,004.00	
4648		E1 450 40	laneous services.
4822		51,678.43	
4845		2,339.72	Sundry Office Supplies,
4930	10		Supplies not listed specifically,
Weat	***************************************	29,990.85	Transportation of equipment.
5070			etc.
2010		8,851.89	Reimbursement of travel ex-
			penses (transportation of per-
			sons.)
·	-	··	•
Total		748,389,69	
Act of April 15, 1928			
Authority No.			
Authority No.			
"Eng.208P-920-A1070-67	~\$	27.36	Telegrams,
1387		59,348.62	Machinery not otherwise listed.
3316	***********	8,141.83	Repairs and alterations.
4276		44,881,75	Wages-all employees.
4568	****	23,779,66	Installation of roads, walks.
			bridges and drainage.
4586		3.014.08	Construction of tramways, fer-
	,,.,,,,	2424,100	ries and trails.
4625		10.332.13	Food and trains.
		20,002,13	Food and lodging and miscel-
4648	**********	47,616,29	laneous services.
4822		798.70	Provisions,
4845		50.027.57	Sundry Office Supplies.
4930	1		Supplies not listed specifically.
		14,656.61	Transportation of equipment,
5070		0.040.00	etc.
447.5	P\$ **** * *** * ***	2,248.02	Reimbursement of travel ex-
			penses (transportation of ner-
			sons.)
Total	-	24.00= 45	

# I. APPROPRIATIONS.

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

A	·ct	of—				a t	-		
June	,		\$	150,000.00	May	ct c 2.	1917	\$	500.000.00
June	20,	1906		35,000.00a	July	9.	1918	**************************************	
Mar.	. 2	1907		250,000,00	July	11.			100,000.00
May	11,	1908		250,000.00	June		1920		100,000.00
Mar.	3.	1909	**	350,000,00	June		1921		350,000,00
Mar.	23,	1910		100.000.00	June		1922		425,000.00c
Mar.	3,	1911		150,000,00	Mar.		1923	4*************************************	465.000.00
Aug.	24,	1912		125,000,00	June	7	1924		650.600.00d
Mar,	2,	1913		155,000,00b	Dec.	6.	1924	71	725,000.00
Apr.	27,	1914		125,000.00	Feb.	12.	1925		55,000,00e
Mar.	4,	1915		165,000.00	Apr.		1926	*********	900,000,00
Aug.	29.	1916		500,000.00		-0,	1020	1	900,000,00
a Fo	- 17			-		7	Potal		525 600 00

a—For Fairbanks-Council Survey.
b—Includes \$55,000.00 for Valdez dike.
c—Includes \$10,000.00 for Nome-Keewallk Survey.
d—Includes \$600.00 for survey Juneau Dock.
e—Deficiency to cover Increase of Compensation, 1925.

2. Construction and Maintenance of Wagon Roads, Bridges and Tralls, "Alaska Fund."

L INCOT	year—			d year—	
1905		28,130.56	1916		172,952,67
1306		112,462,19	1917		136,677.26
1907		115,259,29	1918		199,308.52
1908		144,041.56	1919		161,163,37
1900		103,713.67	1920		138,529.19
191#		182,028,17	1921		92,661.68
		122,843,40	1922		97,461.62
1912		207,947.59	1923		119,227.10
1913		173.171.07	1924		115,803,20
		175,734.28	1925		123,871.33
		147.602.97	1926		137,431,66
1020		211,002401	1020		20.120200
				Total	3,013,912.85
Proceed	ls from Sales, Refu	nds, etc. si	nce 19	20	47,077.83
				-	
	Grand Total				3,060,090.18
	ease of Compensat	ion, War I	Departr		
Fiscal 1918 1919 1920	ease of Compensat	145.20	Departr	nent.	4,322.09 32,846.67 56,805.54
Fiscal 1918 1919 1920	rease of Compensat year—\$	145.20	Departr Fisca 1922 1923 1924	l year—	32,846.67 56,805.54
Fiscal 1918 1919 1920 1921	rease of Compensat year—	145.20	Departr Fisca 1922 1923 1924	l year—	32,846.67 56,805.54
Fiscal 1918 1919 1920 1921 4. Nat	year— \$ ional Cemeteries.	145.20	Pisca 1922 1923 1924	rotal	32,846.67 56,805.54
Fiscal 1918 1919 1920 1921 4. Nat Fiscal	year— \$ ional Cemeteries.	145.20 940.00	Pisca 1922 1923 1924 Fisca	rotal	32,846.67 56,805.54 95,059.50
Fiscal 1918 1919 1920 1921 4. Nat Fiscal	year— \$ ional Cemeteries.	145.20	Pisca 1922 1923 1924 Fisca	rotal	32,846.67 56,805.54 95,059.50
Fiscal 1918 1919 1920 1921 4. Nat Fiscal	year— \$ ional Cemeteries.	145.20 940.00	Fisca 1922 1923 1924 Fisca 1926	rotal	32,846.67 56,805.54 95,059.50
Fiscal 1918 1919 1920 1921 4. Nat Fiscal 1925	year— \$ ional Cemeteries.	940.00 302.17	Departr Fisca 1922 1923 1924 Fisca 1926	Total	32,846.67 56,805.54 95,059.50
Fiscal 1918 1919 1920 1921 4. Nat Fiscal 1925 5. Roa	ease of Compensat year—  S  S  S  Sonal Cemeteries. year—  S  ds and Tralls, Nat	940.00 302.17	Fisca 1922 1923 1924 Fisca 1926	Total	32,846.67 56,805.54 95,059.50
Fiscal 1919 1919 1921 1921 4. Nat Fiscal 1925 5. Roa Act of	ease of Compensat year—	145.20 940.00 302.17 Jonal Parks	Fisca 1922 1923 1924 Fisca 1926 T	rotni	32,846.67 56,805.54 95,059.50 300.00 '602.17
Fiscal  1918  1919  1920  1921  4. Nat  Fiscal  1925  5. Roa  Act of	ease of Compensat year—  S  S  S  Sonal Cemeteries. year—  S  ds and Tralls, Nat	145.20 940.00 302.17 Jonal Parks	Fisca 1922 1923 1924 Fisca 1926 T	Total	32,846.67 56,805.54 95,059.50 300.00 '602.17
Fiscal  1918  1919  1920  1921  4. Nat  Fiscal  1925  5. Roa  Act of	ease of Compensat year—	145.20 940.00 302.17 Jonal Parks	Fisca 1922 1923 1924 Fisca 1926 T	rotni	32,846.67 56,805.54 95,059.50 300.00 '502.17
Fiscal  1918  1919  1920  1921  4. Nat  Fiscal  1925  5. Roa  Act of	tonal Cemeteries.  year—  stonal Cemeteries.  year—  S  ds and Tralls, Nat	145.20 940.00 302.17 Ionai Parks 80,000.00	Fisca 1922 1923 1924 Fisca 1926 T. Act May	rotal	32,846.67 56,805.54 95,059.50 300.00 '502.17 50,000.00

# 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		\$201,264.55
Approved May 7, 1921. Public Roads. Bridges, Tralls, and Ferries:		
Fiscal Year:		
1921	28,000.00 43,237,28	
1922	88,512.88	159,750.16
Approved May 5, 1921, Nizina River Bridge,		
Fiscal Year:		
1922	5.000.00	
1923	20,000.00	25,000.00

A)	pproved May 7, 1921, Shelter Cabins. Fiscal Year:		
	1922 1923	<b>6.</b> 500.00 <b>3,500.0</b> 0	19,000.95
A	pproved May 4, 1923. Public Roads, Bridges, Trails and Ferries: Fiscal Year:	4	
	1924 1926	91.325.35 76,478.45	167,803.50
Αp	ppoved May 4, 1923, Shelter Cabins: Fiscal Year:		
Ap	1924	15,000.00	15,000,00
	Fiscal Year:		
Αp	1926 proved April 30, 1925, Shelter Cabins;	113,850.00	113,850.0-
	Fiscal Year;		
	1925 1926	2,500.00 17,500.00	20,060.64
Аp	proved April 30, 1925, Telephone Lines. Seward Peninsula:		
	Fiscal Year:		
	1926		2,149.10
	Total Territory		\$714.817.61
2.	By Others:		
	Fiscal Year 1922:  City of Valdez City of Wrangell City of Sikka Alpine Club of Skagway		\$ 1,683,77
	Fiscal Year 1923:		
	City of Valdez	601.83 777.71	1,379.54
	Fiscal Year 1924:		
	Stewart & Denhart National Park Service City of Nome	540.00 500.00 3,500.00	4,540,66
	Fiscal Year 1925:		
	The Alaska Railroad National Park Service Tanana Valley Dredging Co. P. L. McDonald	342.37	883.12
	Fiscat Year 1926:	<del></del>	
	The Fairbanks Exploration Co. City of Fairbanks The Alaska Rallroad National Park Service	802.00 955.00 500.00 562.01	2,819,41
	Totals, Others		11,395,44
	II. Total Contributed Funds		
	L MALLET / FFA		φιΔ0,1ώ3.º3

# ANNUAL REPORT ALASKA ROAD COMMISSION.

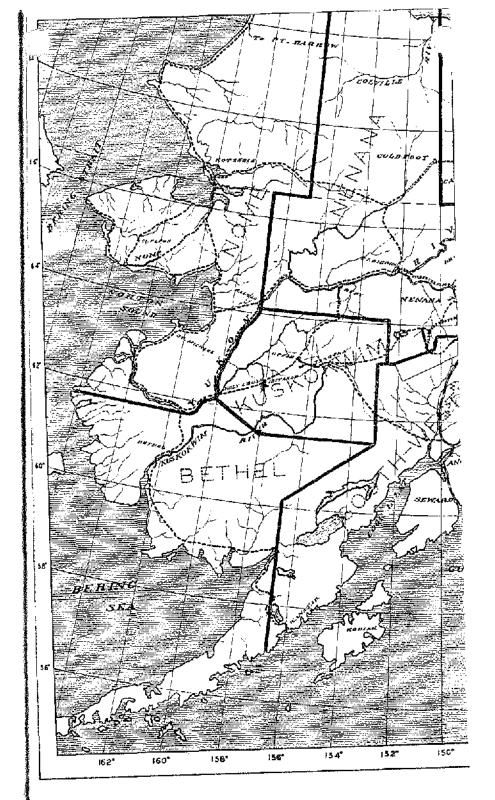
# III. EXPENDITURE OF OTHER FUNDS SUPERVISED BY THE COMMISSION.

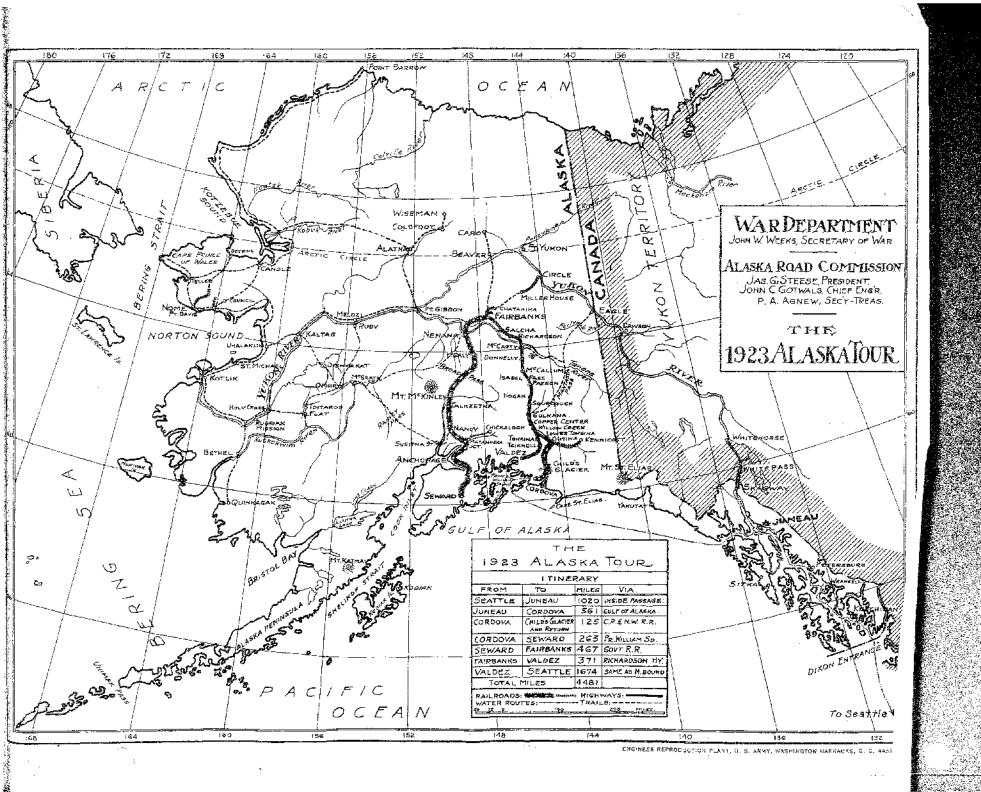
	· · · · · · · · · · · · · · · · · · ·
Iscal Year 1920 and prior years	\$1,221,574.09
fiscal Year 1921:	
. For the Territory of Alaska:	6.00
Kuskulana Bridge	0.00
For the Chief of Engineers, U. S. Army: Rivers and Harbors, Fish Traps, etc	2.50
Totals	2,352.50
Iscal Year 1922:	
For the Territory of Alaska:	
Chairman, 3rd Division	2.19
Chairman, 3rd Division \$ 7,81 Chairman, 4th Division 21,36	5.00
For the Chief of Engineers, U. S. Army: Rivers and Harbors, Fish Traps, etc 47,50	3.46
For the Quartermaster Ceneral, U. S. Army: Chilkoot Barracks water supply2,50	2.02
Total	79,182.67
A C MAK	
Iscal Year 1923:	
, For the Territory of Alaska:	
Chairman, 3rd Division\$ 10.88 Chairman, 4th Division\$ 15,77	55.72
Chairman, 4th Division 15,73 Seward Peninsula Railroad 24,01	17.11 14.00
	14.00
For the Chief of Engineers, U. S. Army: Rivers and Harbors, Fish Traps, etc 21.14	45,12
For The Alaska Rallroad	70.09
Total	\$1,662,302.04
fiscal Year 1924:	
For the Territory of Alaska:	
Chairman 2rd Division\$ 14.9	93.86
Chairman, 4th Division 20,0	00.50 25.00
. For the Chief of Engineers, U. S. Army;	
Rivers and Harbors, Fish Traps, etc 81,9	31.56
For The Alaska Railroad	78.70
i, For the National Park Service: Mt. McKinley National Park Road	00,25
Total	\$1,591,929.22
Fiscal Year 1925:	
1. For the Territory of Alaska:	
Chairman, 3rd Division	0 <b>6.14</b> 0 <b>0.0</b> 0
Chairman, 4th Division 5,0 Kaltag Portage Survey 3	12.72
2. For the Chief of Engineers, U. S. Army: Rivers and Harbors, Fish Trups, etc. 54,4	
For the Quartermaster General, U. S. Army:	
3. For the Quartermaster General, U. S. Army: Chilkoot Barracks Water Supply	00.00
Total	\$ 78,036.76

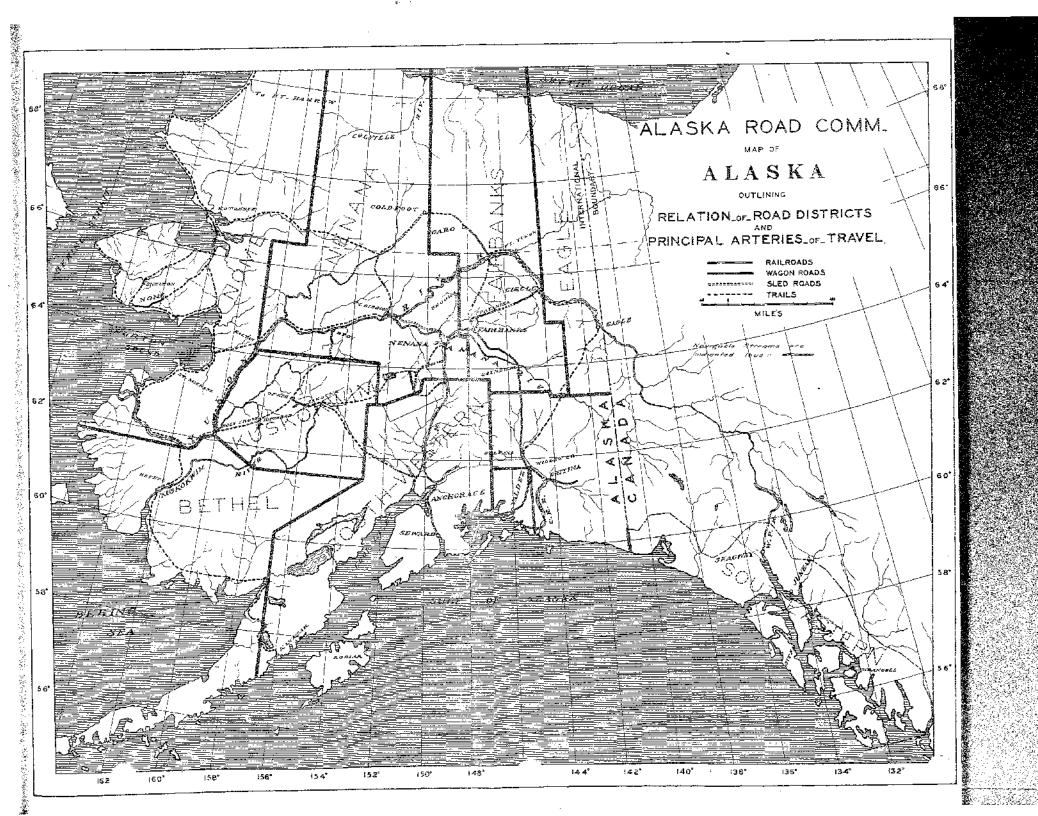
1. For the Territory of Alaska:

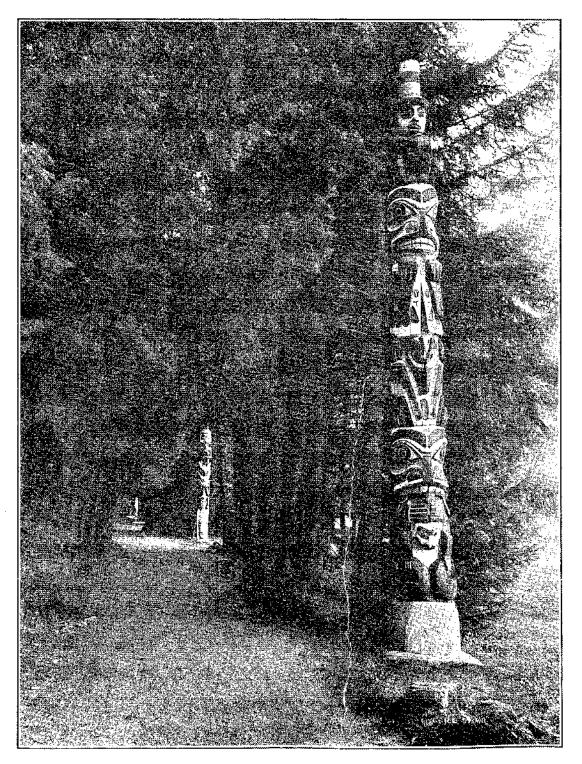
# ANNUAL REPORT ALASKA ROAD COMMISSION.

No.   Name	4 .	Chairman, 3rd Division				\$	9,882.86
Overhead   San	Acet.	Name	Miles		Expenditi	1124	
108   Seward-Nash   31/2   800.00	210.						
SSL   Palmer-Matanuska   644   582.86     Speard Road   344   4,970.00     Totals   2334   \$ 9,882.86     Totals   2334   \$ 9,882.86     Chairman, 4th Division   \$ 12,369.60     Acct.   No.   Name   Miles   Expenditure     Overhead   \$ 85.60     7AA Cleary Creek   3 805.46     7B Fox-Olnes   13 164.50     7C Fairbanks Creek   13 3,887.82     7DA College Spur   54 98.60     7DB St. Patrick's Creek   234 3,603.73     7DA College Spur   54 386.33     7DA College Spur   54 88.00     7DB St. Patrick's Creek   234 3,603.73     7DA College Spur   54 88.00     7DB St. Patrick's Creek   234 3,603.73     7DA College Spur   54 88.00     7DB St. Patrick's Creek   24 3,603.73     7DA Lazelle Road   24 186.33     7DA Lazelle Roa		Seward-Nash	21/4	т.	800.00		
SSL   Palmer-Matanuska   644   582.86     Speard Road   344   4,970.00     Totals   2334   \$ 9,882.86     Totals   2334   \$ 9,882.86     Chairman, 4th Division   \$ 12,369.60     Acct.   No.   Name   Miles   Expenditure     Overhead   \$ 85.60     7AA Cleary Creek   3 805.46     7B Fox-Olnes   13 164.50     7C Fairbanks Creek   13 3,887.82     7DA College Spur   54 98.60     7DB St. Patrick's Creek   234 3,603.73     7DA College Spur   54 386.33     7DA College Spur   54 88.00     7DB St. Patrick's Creek   234 3,603.73     7DA College Spur   54 88.00     7DB St. Patrick's Creek   234 3,603.73     7DA College Spur   54 88.00     7DB St. Patrick's Creek   24 3,603.73     7DA Lazelle Road   24 186.33     7DA Lazelle Roa		Palmer-Matanuska River	1 3/2		411.42		
Totals		Palmer-Matanuska	644				
Totals	35R	Bogard Road	31/2		2.888.58		
Chairman, 4th Division	75A	Anchoage-Lake Spenard	4		4,970.00		
No.   Name   Miles   Expenditure				•	9,882.86		
No.   Name	4 40.4	Chairman, 4th Division		-		\$	12,360.00
Overhead		Name	Miles	1	Expendite	ıra	
7A		Overhead	****				
TDB St. Patrick's Creek		Cleary Creek	3				
TDB St. Patrick's Creek		Fox-Olnes	13		164.50		
7NA   Isabelle Creek		Callaga Calla	13				
7NA   Isabelle Creek	7DB	St Patrick's Creek	72 21/6				
7NA   Isabelle Creek		Lazelle Road	24				
7NA   Isabelle Creek		Little Eldorado Creek	6		847.67		
7NA   Isabelle Creek		Oines-Livengood	54		513.25		
### Totals	7N	Farmers-Birch Hill	9				
### Totals		Formare-Chene Slough	414		10,00 498 14		
### Totals		Central House-Circle Hot Springs	9 72				
### Totals		Brooks-Aviation Field	11/4				
Rivers and Harbors, Fish Traps, etc.   \$ 47,521.95			~	\$	12,360.00		
Rivers and Harbors, Fish Traps, etc.   \$ 47,521.95	2. Fo	r the Chief of Engineers, U.S. Arm	1V:				
Improvement of Nome Harbor		<del>-</del> '	-			\$	47 521 45
Preliminary Examination of Port Alexander					06 409 AF	4	44,002.35
Preliminary Examination of Port Alexander		Improvement of Wrongell Harbor		₽ .			
Preliminary Examination of Port Alexander		Improvement of Wrangell Narrows	3				
Preliminary Examination of Port Alexander		Preliminary Examination of Resul	rrection		·		
### Ander   Preliminary   Examination of Yukon River at Holy   Cross   100.00		Dily			142.30		
Preliminary Examination of Saxman Harbor   12.50		ander	Alex-		250.00		
Preliminary Examination of Saxman Harbor   12.50		Preliminary Examination of Yukor	River				
Preliminary Examination of Saxman Harbor   12.50		at Holy Cross	Pivon		100,00		
Preliminary Examination of Saxman Harbor   12.50		at Fort Yukon	Tri Act		50.00		
Preliminary Examination of Saxman Harbor   12.50		Preliminary Examination of Hyde	r Har-				
Preliminary Examination of Wrangell   21.00   7.810.38   21.00   7.810.38   21.00   7.810.38   21.00   7.810.38   21.00   7.810.38   21.00   7.810.38   21.00   7.810.38   21.00   7.810.38   21.00   7.810.38   21.00   21.		Preliminant Eventination of Sarmer	n Har-		200.00		
Preliminary Examination of Wirangell   21.00   1.		bor			12.50		
Public Hearings, Fish Traps, etc.   7,810.38		Preliminary Examination of W	rangell				
Total \$ 47,521,95  3. For the Quartermaster General, U. S. Army: Chikkoot Barracks Water Supply \$ 5,000,60  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 500.00 Wiseman—Aviation Field 1,513.25 Flat—Aviation Field 1,513.25 Flat—Aviation Field 500.06  Total \$ 8,276.25 Total Supervised Funds, Fiscal Year 1926 83,041.06 HH. Total, Supervised Funds 4,718,418.33		Public Hearings, Fish Traps, etc.	***				
3. For the Quartermaster General, U. S. Army: Chilkoot Barracks Water Supply \$ 5,000.00  4. Miscellaneous: Valdez—Repairs to Dike \$ 4,628.00 Fort Yukon—Aviation Field 600.00 Brooks—Road to Aviation Field 225.00 Ruby—Aviation Field 500.00 Wiseman—Aviation Field 1,613.25 Flat—Aviation Field 600.06  Total \$ 8,276.25 Total Supervised Funds, Fiscal Year 1926 83,041.06 HH. Total, Supervised Funds 4,718,418.33			-		<del></del>		
## Chilkoot Barracks Water Supply ## 5,000.00  ### 4. Miscellaneous:    Valdez—Repairs to Dike		Total	\$	47,	<b>521,95</b>		41-1
4. Miscellaneous:  Valdez—Repairs to Dike \$ 4,638.60 Fort Yukon—Aviation Field 600.00 Brooks—Road to Aviation Field 225.00 Ruby—Aviation Field 500.00 Wiseman—Aviation Field 1,513.25 Fint—Aviation Field 600.00  Total \$ 8,276.25 Total Supervised Funds, Fiscal Year 1926 83,041.65 HH. Total, Supervised Funds 4,718,418.33	3. For	the Quartermaster General, U. S	Army:				
Valdez—Repairs to Dike       \$ 4,638.60         Fort Yukon—Aviation Field       690.00         Brooks—Road to Aviation Field       225.00         Ruby—Aviation Field       500.00         Wiseman—Aviation Field       1,513.25         Fint—Aviation Field       600.00         Total       \$ 8,276.25         Total Supervised Funds, Fiscal Year 1926       83,041.65         III. Total, Supervised Funds       4,718,418.33		Chilkoot Barracks Water Supply				\$	5,009.00
Brooks—Road to Aviation Field   225.00	4. MIs						
Brooks—Road to Aviation Field   225.00		Valdez-Repairs to Dike		5	4,638.00		
Ruby—Aviation Field   500.00   Wiseman—Aviation Field   1,613.25   Flat—Aviation Field   600.06     600.06     70tal   \$ 8,276.25   Total Supervised Funds, Fiscal Year 1926   83,041.06     111. Total, Supervised Funds   4,718,418.33   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418.34   4,718,418		Fort Yukon—Aviation Field			600.00		
Total         \$ 8,276.25           Total Supervised Funds, Fiscal Year 1926         83,041.65           III. Total, Supervised Funds         4,718,418.33		Drocks—Road to AVIRTION Field					
Total         \$ 8,276.25           Total Supervised Funds, Fiscal Year 1926         83,041.65           III. Total, Supervised Funds         4,718,418.33		Wiseman-Aviation Field					
Total         \$ 8,276.25           Total Supervised Funds, Fiscal Year 1926         83,041.65           III. Total, Supervised Funds         4,718,418.33		Flat-Aviation Field					
Total Supervised Funds, Fiscal Year 1926 83,041.65 III. Total, Supervised Funds 4,718,418.33			_			٠	0 DHA 01
III. Total, Supervised Funds 4,718,418.33				500			
Ground Fotal, All Funds							
		Grang Total, All Funds	**********	·	~~~~	\$16,2	\$05,803.23

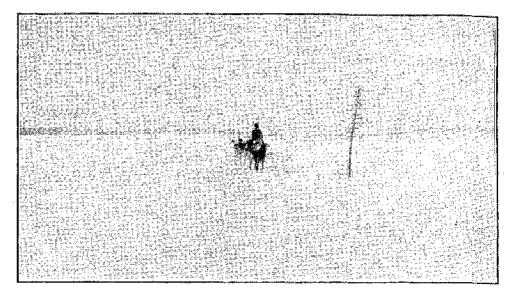




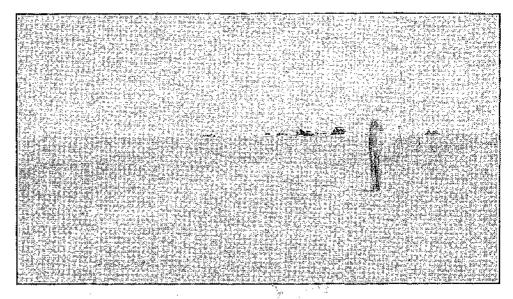




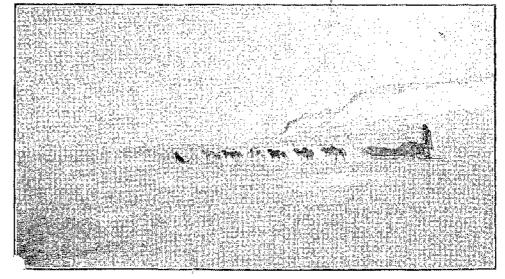
TOTEM POLES, LOVERS LANE, SITKA NATIONAL MONUMENT



NOME TRAIL STAKED WITH SPRUCE TREES ACROSS FROZEN BERING SEA

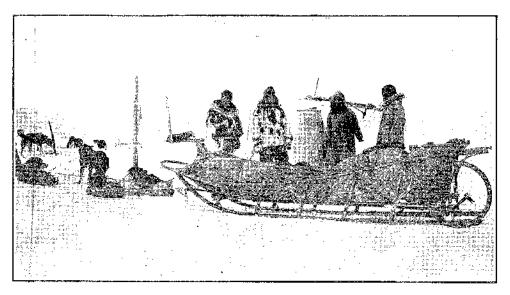


POINT BARROW.TRAIL STAKED WITH JAW BONES AND RIBS OF WHALES NEAR POINT HOPE

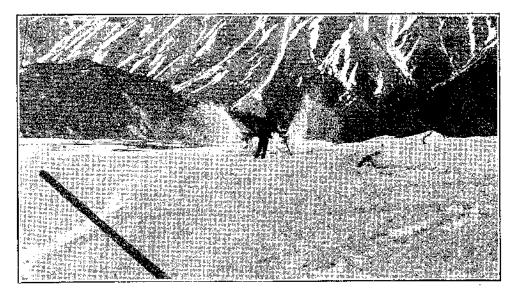


ALASKA ROAD COMMISSION SUPERINTENDENT MEASURING POINT BARROW TRAIL

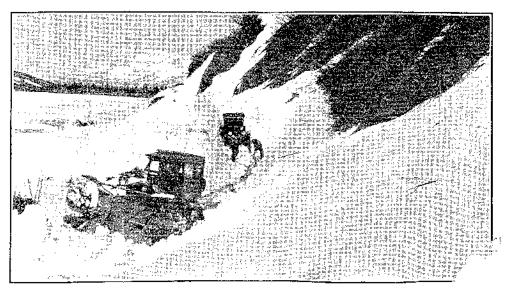




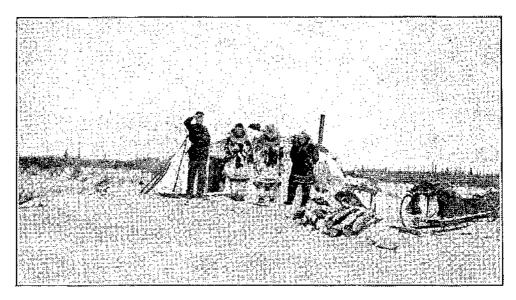
SLED. BICYCLE WHEEL AND CYCLOMETER FOR TRAIL MEASURING



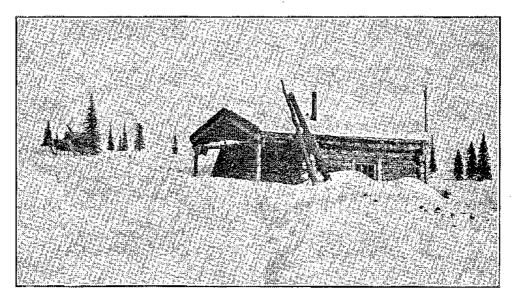
SNOWPLOW IN DELTA CANYON, MILE 212, RICHARDSON HIGHWAY



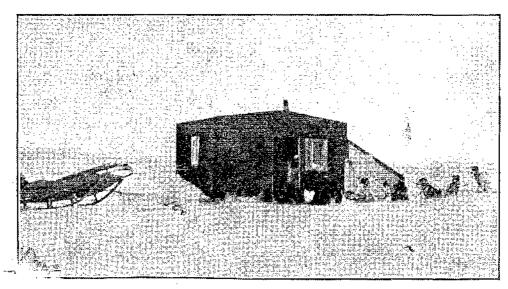
EARLY SPRING TRAVEL, MILE 218, RICHARDSO!



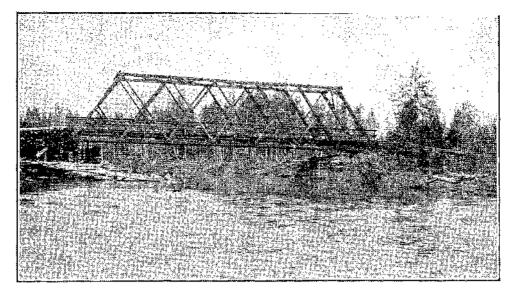
IGLOO TYPE OF SHELTER CABIN, MILE 210, NOME-POINT BARROW TRAIL



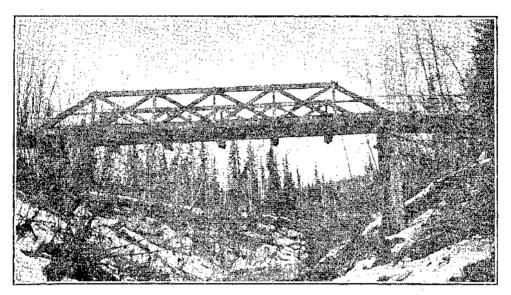
LOG CABIN TYPE OF SHELTER CABIN, MILE 264, NOMENENANA TRAIL



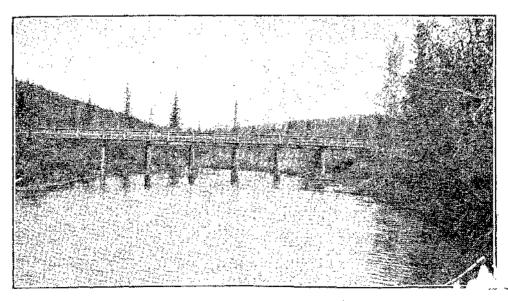
FRAMED SHELTER ČABIN, ARCTIC CIRCLE, MILE 271, POINT BARROW TRAIL



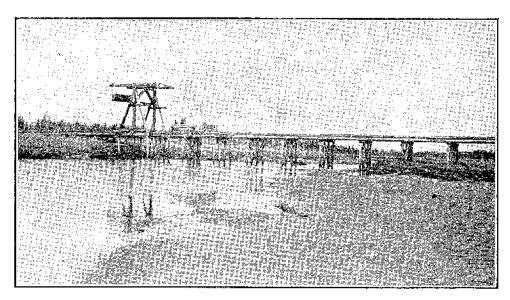
100-FOOT THROUGH TRUSS BRIDGE, MILE 348, RICHARDSON HIGHWAY



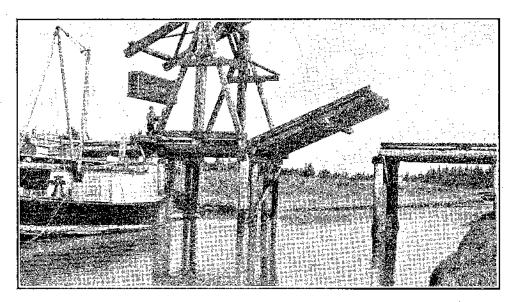
60-FOOT PONY TRUSS BRIDGE, GOLDSTREAM NEAR DUNBAR



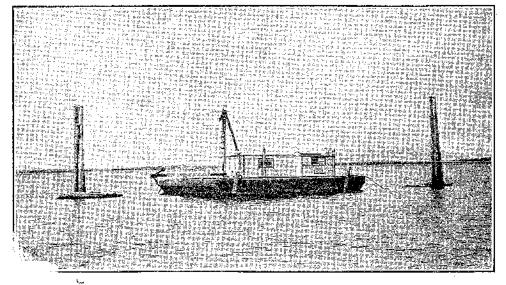
110-FOOT PILE TRESTLE BRIDGE, MILE 331, RICHARDSON HIGHWAY



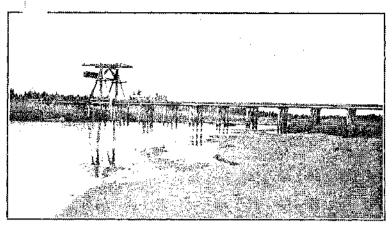
LIFT BRIDGE, SALMON RIVER, STRAWBERRY POINT



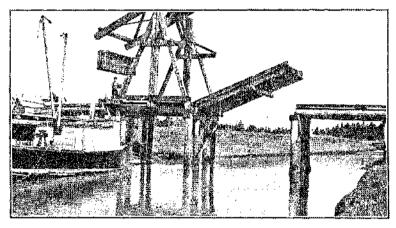
LIFT BRIDGE, GOOD CREEK, STRAWBERRY POINT



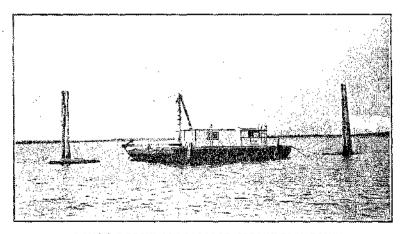
LANDING SCOW, ICY PASSAGE, STRAWBERRY POINT



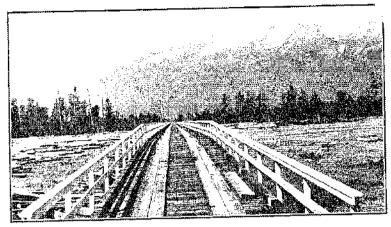
LIFT BRIDGE, SALMON RIVER, STRAWBERRY POINT



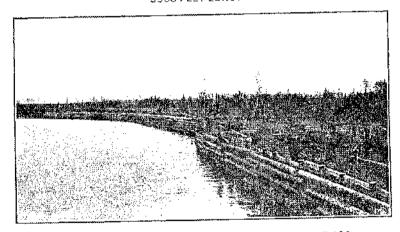
LIFT BRIDGE, GOOD CREEK, STRAWBERRY POINT



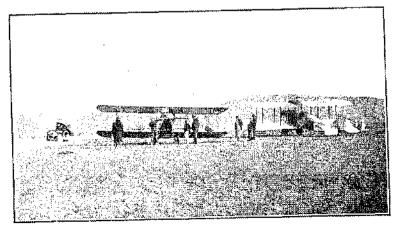
LANDING SCOW, ICY PASSAGE, STRAWBERRY POINT



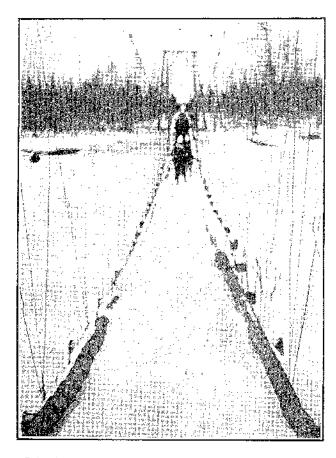
BRIDGE NO. 12, VALDEZ GLACIER DELTA (TOTAL 22 BRIDGES, 3500 FEET LONG)



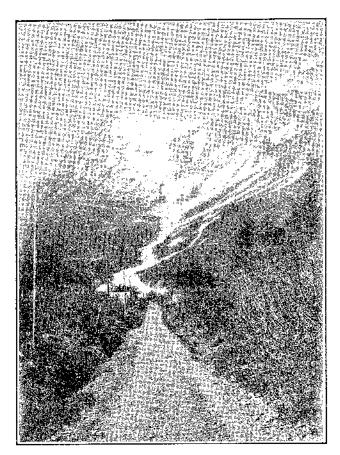
BANK REVETMENT. ABOVE SALCHA RIVER BRIDGE, MILE 330. RICHARDSON HIGHWAY



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



DOG TEAM CROSSING SOUTH RIVER SUSPENSION BRIDGE, KALTAG PORTAGE



SNOWSLIDE GULCH, MILE 16, RICHARDSON HIGHWAY

