

range and drains into Bering Sea. Within the valleys of the Copper and Susitna Rivers rise two very rugged mountain groups, the Wrangell and Talkeetna ranges.

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

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

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

The subsoil of the vast interior of Alaska is permanently frozen. This is a condition handed down from a preceding period when the climate of Alaska was much colder than at present. For about four months during the summer the average temperature is about 55° to 60° while 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 retard surface drainage. The result is that in proceeding across country in Alaska in its normal condition in summer one wades through a peat-like muck, water-soaked and ankle to knee deep. The going is made rough by the profusion of bunches of grass root growth known locally as "niggerheads."

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

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

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

Alaska is well provided with navigable streams which now serve the same purpose in the Territory as did the rivers in the states before the construction of the railroads. The Yukon, Kuskokwim, Innoko, Iditarod, Koyukuk, Tanana, Kantishna, and the Tolovana Rivers, together with The Alaska Railroad, the Copper River and Northwestern Railway, the White Pass and Yukon Railway, and the Richardson and Steese Highways form main routes of commerce. From the seacoast or from points on these main routes freight is moved still closer to its destination on the smaller streams in light draft boats or over short feeder roads.

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

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

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

The average cost of transporting a ton of freight one mile by bobsled on a winter sled road, as shown by the table on page 33 is 96c as compared with a cost for summer movement of 60c by auto truck or \$1.50 by wagon. It generally follows that for isolated mines and small mining communities in the remote interior the construction of wagon and automobile roads is not warranted.

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

CONSTRUCTION.

Road construction in Alaska 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 attain 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 used. Fortunately the scrub timber generally available, makes good corduroy.

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

Bridges are built of native or imported timber or steel, depending on their importance. Fir has been found to be the most suitable material for timber bridges but improvements in methods of local timber production now in progress will, if successful, make possible some use of Alaska hemlock for structural purposes.

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

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

Summer trails follow the driest—or 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 improvements throughout rather than to make extensive improvements on one route or portion of a route which cannot be advantageously used until the remainder or the connecting routes are so improved.

TRAFFIC STATISTICS.

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

The data thus collected indicates a considerable annual saving in cost of transportation of freight due to the construction of roads by the Commission. It is doubtful, however, if a large portion of the 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.

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

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

Winter:	Per Ton-Mile
Bob-sled (sled road).....	\$ 0.90
Double-ender (trail).....	1.30
Dog-team (trail).....	6.30
Summer:	
Truck (wagon road).....	.60
Wagon (wagon road).....	1.50

Pack train (trail).....	4.80
Man (no trail).....	26.67*

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

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.

The available records of traffic show a reasonable increase for the calendar year 1929 over that of previous years. Although the records are incomplete it is possible to make a comparison between the 1928 traffic and that for 1929 over the more important routes in the various districts. This comparison, shown in the table below, is necessarily limited to passenger and freight traffic over automobile roads.

Comparative Statement of Traffic Over Typical Routes

Route	Persons		Motor Vehicles		Tonnage	
	1928	1929	1928	1929	1928	1929
Haines-Pleasant Camp.....	6,229	6,941	2,916	2,297	257	260
Richardson Highway:						
Valdez	15,312	18,658	4,509	7,314	272	388
Willow Creek	3,912	1,387	552	687	117	204
Grundler	3,983	8,088	1,228	1,298	378	421
Richardson	4,286	4,546	1,769	1,770	443	459
Summit-Fairbanks Creek	3,239	1,892	878	726	1,537	987
Steele Highway	2,371	1,816	337	419	240	350
Wasilla-Fishhook	4,563	3,989	2,431	2,002	1,099	950
Wasilla-Knik	3,870	4,005	1,387	1,615	126	188
Wasilla-Matanuska	5,390	6,144	2,932	3,101	265	270
McKinley Park Road	4,391	6,860	1,692	3,930	695	710
Nome-Council	424	517	156	190	14	44
Totals	55,740	59,829	19,598	24,318	5,258	5,211

For the above routes it is shown that the following increases have occurred in the 1929 traffic as compared with the 1928 traffic:

Number of persons.....	7.5%
Number of motor vehicles.....	24.1%

These increases show a very gratifying reaction from the recent work performed by the Commission. The following statement shows the 1929 traffic on some of the typical routes and indicates an astonishing aggregate of traffic upon trails in remote sections which would be greatly benefited if the trails were improved to wagon or auto-truck standard:

1929 TRAFFIC CENSUS.

District	No. Route	Station	Period	No. of Persons	Motor Vehicles	Wagons	Stags	Pack Horses	Tonnage
SOUTHEASTERN									
Haines-Pleasant Camp	3A&B	Wells	Jan.-Dec.	6,941	2,207	28	273	.....	260
VALDEZ									
Valdez-Chitina-Fairbanks	41A	Valdez	June-Oct.	18,656	7,344	.....	.....	.....	368
Valdez-Chitina-Fairbanks	41A	Canon	June-Oct.	8,082	3,132	.....	.....	.....	360
Valdez-Chitina-Fairbanks	41B	Flekell	May-Oct.	1,688	792	.....	.....	.....	358
Valdez-Chitina-Fairbanks	41C	Willow Creek	May-Oct.	1,374	687	.....	.....	.....	204
CHITINA									
Chitina-Valdez-Fairbanks	.....	Chitina	May-Oct.	7,218	3,203	20	.....	.....	632
Chitina-Valdez-Fairbanks	.....	Dry Creek	May-Dec.	4,241	2,086	14	71	12	846
Gulkana-Chistochina	65A	Gakona	May-Sept.	3,350	1,368	22	.....	.....	443
McCarthy-Dan Creek	57	McCarthy	Jan.-Dec.	2,182	835	80	120	93	306
FAIRBANKS									
Fairbanks-Chitina-Valdez	.....	Richardson	May-Oct.	4,646	1,779	.....	.....	.....	469
Fairbanks-Chitina-Valdez	.....	Grundler	May-Oct.	3,086	1,298	.....	.....	.....	424
Fairbanks-Circle	7C	Fairbanks	May-Dec.	37,170	23,426	142	21	.....	14,982
Fairbanks-Circle	7C	Fox	May-Dec.	34,733	22,136	142	21	.....	12,878
Fairbanks-Circle	16	Miller House	Jan.-Sept.	1,816	449	4	152	.....	350
Fairbanks-Circle	15	Birch Creek	May-Oct.	1,106	427	16	.....	.....	60
Summit-Fairbanks Creek	7A	Meehan	May-Aug.	1,892	726	36	.....	.....	987
Ruby-Poorman	38A&B	Long	Jan.-Dec.	927	65	62	351	.....	241
Dunbar-Brooks	63	Dunbar	Jan.-Dec.	320	.....	.....	176	.....	113
Ferry-Eva Creek	88A	Ferry	Jan.-Dec.	290	16	45	49	.....	23
SOUTHWESTERN									
Seward-Nash	10B	Seward	Jan.-Dec.	16,485	5,106	209	563	.....	669
Nancy-Susitna	20H	Nancy	Jan.-Dec.	93	.....	.....	25	.....	3
Willow Creek Extension	35D	Lucky Shot	May-Nov.	700	106	210	120	.....	301
Wasilla-Fishhook	35E	Fishhook	Jan.-Dec.	3,989	2,002	48	123	.....	950
Wasilla-Kulk	35F	Wasilla	Jan.-Dec.	4,006	1,616	84	93	.....	185
Wasilla-Palmer-Matanuska	35H&J	Wasilla	Jan.-Dec.	6,144	2,101	444	169	.....	330
Houston-Willow Creek	35N	Houston	Jan.-Dec.	150	.....	.....	448	.....	270
Fishhook-Goldmint	35O	Houston	Jan.-Dec.	800	200	200	100	.....	402
McKinley Park Road	46D	Fishhook	Jan.-Dec.	6,860	3,930	8	686	78	710
Iliamna Bay-Iliamna Lake	48	Park Headquarters	Jan.-Nov.	240	.....	180	.....	320	36
Talkeetna-Cache Creek	51	Iliamna	Apr.-Nov.	369	.....	11	224	58	46
Anchorage Loop	75	Talkeetna	Jan.-Dec.	40,626	13,664	193	124	.....	169
		Anchorage	May-Dec.	40,626	13,664	193	124	.....	169

Alaska Highway Loop	7b	40,636	13,864	183	174	169
Barrow	7c	169				
Talkeetna	7d	169				
Talkeetna-Cook Inlet	7e	40,636	13,864	183	174	169
Anchorage Loop	7b					

District	No. Route	Station	Period	No. of Persons	Motor Vehicles	Wagons	Sleds	Pack Horses	Tonnage
Anchorage-Lake	75A	Anchorage	Jan.-Dec.	35,394	10,928	0	1,640	24	446
Cantwell-Valdez Creek	76	Cantwell	Jan.-Dec.	110			22	24	20
Albert Highway	94	Kodiak	May-July	399	41	46		62	42
NOME									
Nome-Council	8	Safety	June-Oct.	517	190	17			44
Nome-Bessie	13A	Nome	May-Nov.	28,396	10,080				2,126
Bessie-Snako River	13B	Bessie	May-Nov.	2,440	760				157
Nome-Osborne	13F	Nome	May-Nov.	2,250	1,530				225
Bessie-Buster	13K	Buster	May-Nov.	4,500	1,580				25
Tin City-Goodwin	67F	Tin City	June-Oct.	275	200				133
Seward Peninsula Railroad	89A	Nome	June-Nov.	1,447	949				2,001
KUSKOKWIM									
Iditarod-Plat	3213	Plat	Jan.-Dec.	1,092	260	104	266		950
Iditarod-Ophir	320	Ophir	Jan.-Dec.	294			178		22
Plat-Crooked Creek	321	Plat	Jan.-Dec.	198			152		30
Plat-Head Plat Creek	330	Plat	May-Nov.	940	64	60			100
Head Plat-Willow Creek	331	Willow	May-Nov.	384	16	34			22
Willow-Chicken Creek	331a	Chicken	May-Nov.	264	10	28			29
Plat-Older Discovery	331b	Plat	May-Nov.	55	46	103			216
Plat-Anvik	34A	Plat	Jan.-Dec.	245			213		30
Iditarod-Anvik	341	Iditarod	Jan.-Dec.	85			63		10
Ophir-Ophir	380	Ophir	Jan.-Dec.	135			106		16
Ophir-Takotna	381	Takotna	Jan.-Dec.	1,278	385	15	542		320
Little Creek Road	381A	Little Creek	Jan.-Dec.	214	87	5			78
Ganex Creek Road	381B	Yankee Creek	Jan.-Dec.	156	122	6			90
McGrath-Takotna	39A	McGrath	Jan.-Dec.	649			533		60
McGrath-Pelida	39B	McGrath	Jan.-Dec.	467			396		40
Medfra-Nixon Mine	39C	Medfra	Jan.-Dec.	441		14	49		27
Tuluksak-Bethel	9213	Bethel	Jan.-Dec.	1,969			1,471		65
Quinhagak-Goodnews Bay	9214	Quinhagak	Jan.-Dec.	124			103		30
Togiak-Nushagak	9211	Togiak	Jan.-Dec.	285			246		16
Lewis Point-Naknek	921	Naknek	Jan.-Dec.	416			307		32
Naknek-Egegik	92J	Egegik	Jan.-Dec.	183			118		10
Crooked Creek-Aniak	92L	Aniak	Jan.-Dec.	516			437		38
Aniak-Tuluksak	92M	Aniak	Jan.-Dec.	385			320		16
Holy Cross-Kallshak	921	Holy Cross	Jan.-Dec.	217			174		10
Upper Landing-Bear Creek	92Q	Bear Creek	Jan.-Dec.	196	43	16			76

TWENTY-SIX YEARS' SERVICE.

With the period covered by this report the Alaska Road Commission concludes its twenty-sixth year of service. The work accomplished consists of the construction and maintenance of 1,797½ miles of wagon and tram road, most of which is suitable for automobiles, 1,403¾ miles of winter sled road, 7.184 miles of trail and 712 miles of flagged trail. This work has been done at a total cost of \$16,985,521.16 of which \$8,605,506.32 was for new construction and \$7,380,014.84 for maintenance. \$10,965,437.79 of the funds expended were derived from War Department appropriation acts. The balance, \$5,020,083.37 or over 31 per cent. of the total expenditures, was obtained from Alaskan sources. The work accomplished, the funds expended for new work and maintenance and the amounts derived from Federal and Alaskan sources are shown on the diagram opposite. The work accomplished by the Commission naturally divides itself into three periods or phases.

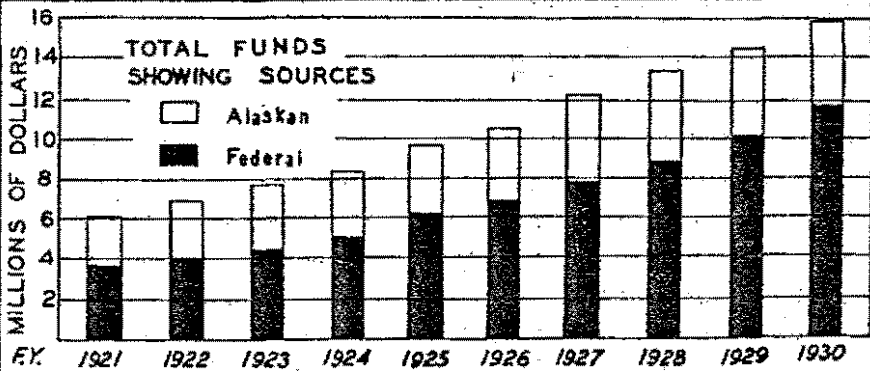
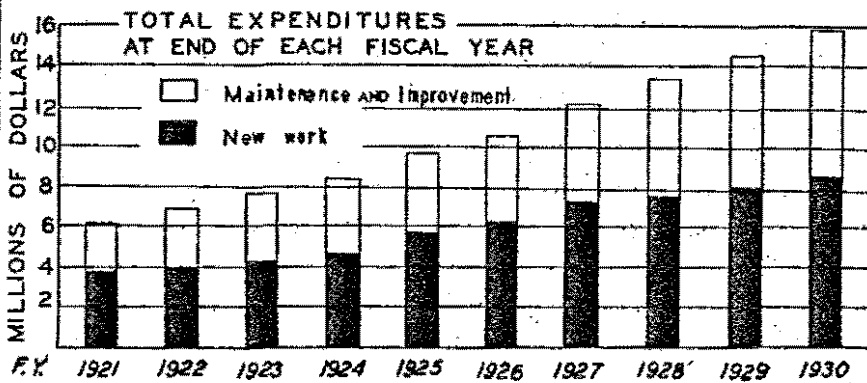
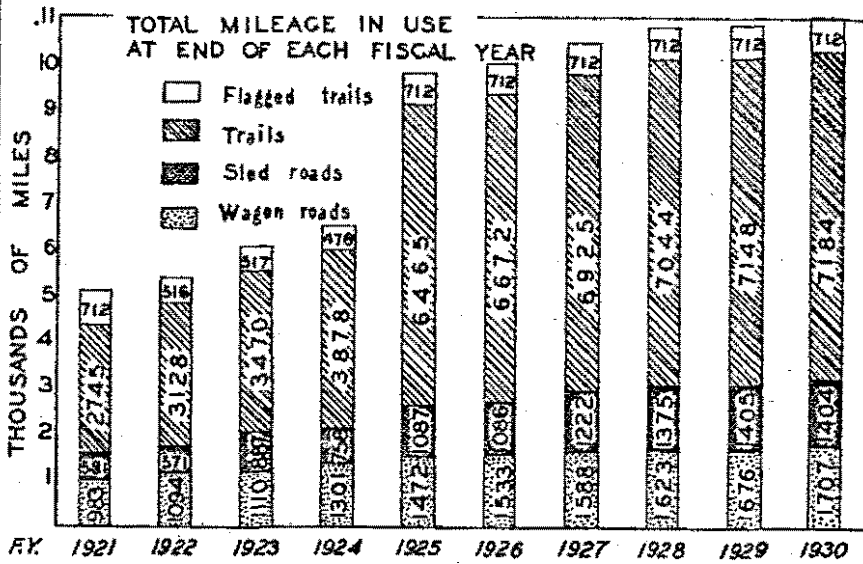
The first was that covered by the period of time during which General Wilds P. Richardson, U. S. Army, Retired, was President of the Commission and extended from 1905 to 1917. This was essentially a period of pioneering. While this period covered nearly all the stampedes into the Territory, settlements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

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

During this second period the work of the Road Commission along with many other Federal works both in Alaska and the U. S., suffered from lack of support because of the precedence given to war activities. Appropriations during the last two years of the period were reduced to \$100,000 per year, prices were high and labor scarce. Under such disadvantages the gain in mileage was slight and maintenance funds were available only for the most urgent requirements. However, such roads as were needed for the commerce of the Territory were

ROAD CONSTRUCTION and EXPENDITURES

ALASKA ROAD COMMISSION - 1905 - 1930.



kept open. Major Wm. H. Waugh, Engineers, U. S. Army, was President of the Commission during this period.

The third period, 1920 to the close of the fiscal year, 1930, has been characterized by increased appropriations, broader legislation, procurement of mechanical equipment, reopening of old trails and roads, heavier construction to withstand motor traffic, and adjustment of lines of communication to the vast change brought about in Alaska by the completion of The Alaska Railroad from Seward which reached Fairbanks in 1923. Federal appropriations increased and other resources were secured so that funds available for the current season's work aggregate \$1,250,000. General James G. Steese was President of the Commission from 1920 to 1927, inclusive.

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 calls only for additional funds for construction.

The Commission prepared a new ten-year program in 1920, 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 aggregated \$3,220,000. The program as then revised, in order to speed up the completion of the work, called for the expenditure of \$9,000,000 during the second five years of the ten-year period. Appropriations for the second five-year period aggregated \$4,325,000. Progress has been accordingly somewhat curtailed.

A new program prepared in 1929 covering the fiscal years 1932 to 1941 inclusive has been submitted to the Secretary of War and transmitted by him to Congress for consideration. This program calls for total Federal appropriations in addition to contributed and tax funds, of \$14,247,000.

Fiscal Year	Working Year	For Maintenance and Improvements	For New Construction	Total for maintenance, improvement and new construction	Estimated Receipts from Alaskan Sources			Federal Appropriations Required
					Alaska Fund	Territorial Appropriations	Total from Alaska	
1932	1931	\$ 886,000	\$ 400,000	\$ 1,286,000	\$ 130,000	\$ 100,000	\$ 230,000	\$ 1,056,000
1933	1932	871,000	600,000	1,471,000	130,000	100,000	230,000	1,241,000
1934	1933	866,000	900,000	1,766,000	130,000	100,000	230,000	1,536,000
1935	1934	856,000	900,000	1,756,000	130,000	100,000	230,000	1,526,000
1936	1935	841,000	900,000	1,741,000	130,000	100,000	230,000	1,511,000
1937	1936	882,000	1,000,000	1,882,000	130,000	100,000	230,000	1,652,000
1938	1937	918,000	900,000	1,818,000	130,000	100,000	230,000	1,588,000
1939	1938	964,000	900,000	1,864,000	130,000	100,000	230,000	1,634,000
1940	1939	978,000	600,000	1,578,000	130,000	100,000	230,000	1,348,000
1941	1940	996,000	400,000	1,396,000	130,000	100,000	230,000	1,166,000
Totals		\$9,947,000	\$7,600,000	\$16,547,000	\$1,300,000	\$1,000,000	\$2,300,000	\$14,247,000

PROPOSED OPERATIONS.

This report covers operations up to June 30, 1930, or practically the working season of 1929. Current operations (working season of 1930) will be covered in the annual report for 1931. About \$1,250,000 is available from all sources for the year. These funds will be expended on the rehabilitation and maintenance of the existing road and trail system, for the construction and maintenance of aviation fields, and for other special work performed with Territorial funds. 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. In addition to contributed and tax funds, an estimate of \$1,056,000 in accordance with the 1929 program has been submitted for the fiscal year ending June 30, 1932, and included in the annual report of the Department. This sum if made available will permit a continuation of the improvement of the Richardson and Steese Highways, ordinary maintenance and some improvement of the shorter systems and a continuation of construction work, on an increased scale, on the important Gulikana-Chisana route, and on a few smaller projects.

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 later. He visits each district office periodically to standardize methods and accounts. By means of the cable, telegraph, and radio, the general office is in constant touch with each district office.

WASHINGTON, D. C., SUB-OFFICE.

Routine business with the War Department is carried on through the Chief of Engineers, U. S. Army. The President of the Commission is required to defend the annual estimates of the Commission in person before the Appropriations Committees of Congress.

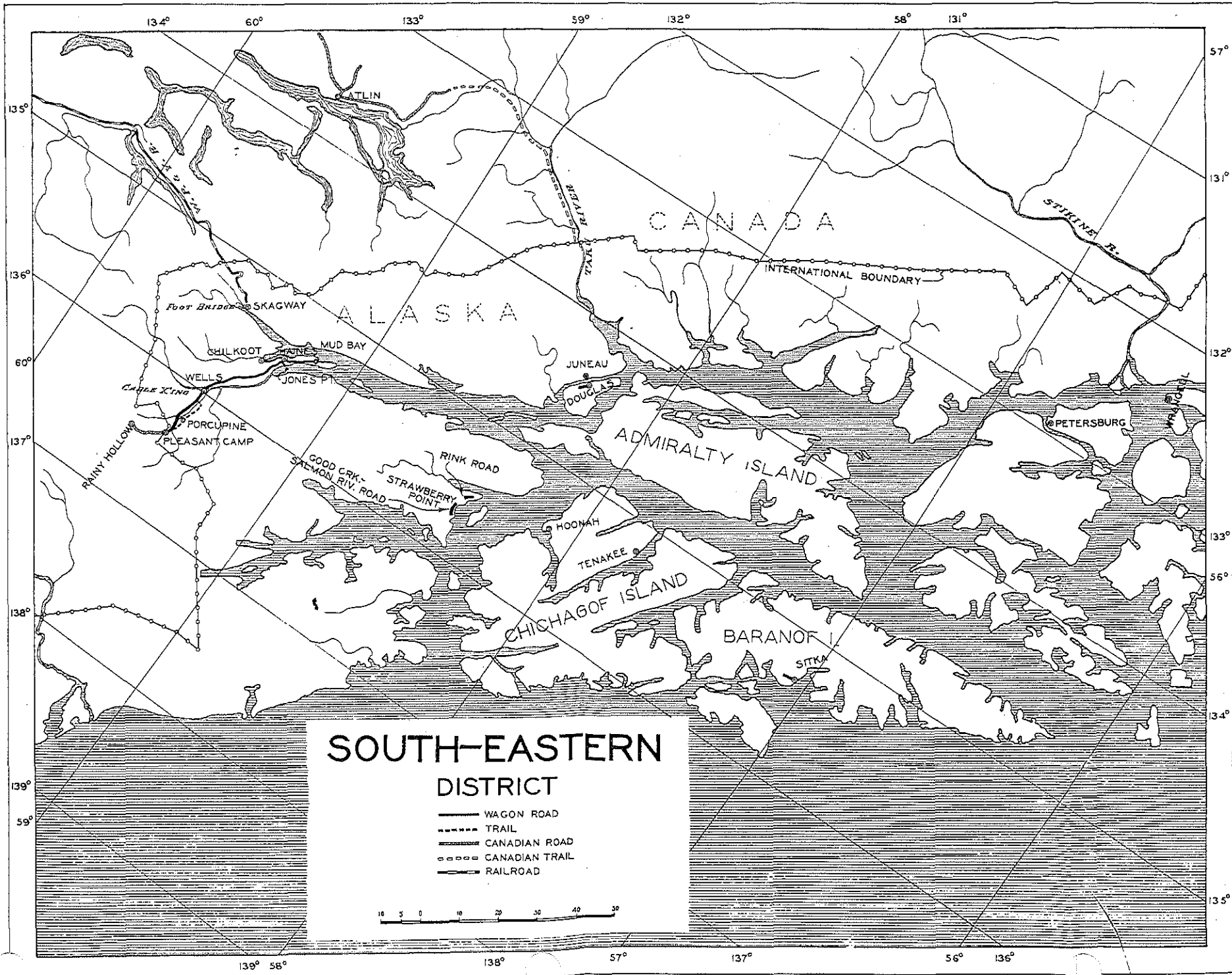
SEATTLE, WASH., ENGINEER OFFICE.

By informal arrangement, the District Engineer, U. S. Engineer Department, Seattle, Wash., acts 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 qualified representative in Seattle and to provide for office space, fuel and light, clerical help, etc.

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

The supplies purchased include practically everything from bridge iron, metal culverts, forage, subsistence and heavy road machinery, to small tools, office equipment, and stationery. Cost of the supplies purchased and the cost for the entire transaction including advertising, acceptance, inspection and shipment, and all expenses incidental thereto, were as indicated in the following table:

Fiscal Year	Cost of Supplies Purchased	Seattle Office Charge	Per Cent
1924	\$ 183,247.50	\$ 3,048.17	1.67
1925	192,082.70	3,933.91	2.05
1926	249,945.06	3,647.97	1.46
1927	154,846.65	3,343.28	2.16
1928	165,192.35	3,390.34	2.05
1929	188,231.31	3,546.26	1.88
1930	213,123.37	3,413.10	1.60
Totals	\$1,346,659.14	\$ 24,323.03	1.80



SOUTH-EASTERN DISTRICT

- WAGON ROAD
- - - TRAIL
- CANADIAN ROAD
- o o o o CANADIAN TRAIL
- RAILROAD



SOUTHEASTERN DISTRICT.

Supervised from Juneau Office.

Lt. E. C. Itchner, July 1 to July 31, 1929.

Lt. P. R. Garges, Aug. 1, 1929 to Jan. 31, 1930.

Lt. J. G. Christensen, Feb. 1 to June 30, 1930.

Joe McKenzie, General Foreman, Haines.

Peter Trierschild, General Foreman, Sitka.

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

Due to the rugged topography and the excellent system of sheltered waterways through transportation will always be by water, short road systems serving areas developed along the coast.

All road expenditures in this district were upon co-operative projects supported by the Territory and the Alaska Road Commission, with the exception of the Haines-Chilkoot, Gastineau Bar and Sitka-Pioneer Cemetery Road, which are exclusively Territorial projects. The Sitka National Monument is a co-operative project with the National Park Service, and the Sitka National Cemetery is largely supported by funds from the Quartermaster General.

SUMMARY OF SUB-PROJECTS.

Sub-Project	Name of Sub-Project	Road	Trail	Total Miles
1000	Gastineau Channel Bar	—	—	—
1001	Juneau Wharf	—	—	—
1002	Haines-Wells	24 $\frac{1}{2}$	—	24 $\frac{1}{2}$
1003	Pleasant Camp Extension	17 $\frac{1}{2}$	—	17 $\frac{1}{2}$
1004	Porcupine Extension	5	15	20
1005	Haines-Mud Bay	19	—	19
1006	Haines-Chilkoot	3	—	3
1007	Haines-Jones Point	11 $\frac{1}{2}$	—	11 $\frac{1}{2}$
1008	Sitka-Indian River	3	—	3
1009	Sitka National Monument	—	2	2
1010	Sitka National Cemetery	—	—	—
1011	Sitka Pioneer Cemetery Road	—	—	—
1012	National Cemetery Road	—	—	—
1013	Douglas-Gastineau Channel	2	—	2
1014	Skagway Trails	—	6	6
1015	Skagway Aviation Field	—	—	—
1016	Good Creek-Salmon River	11 $\frac{1}{2}$	—	11 $\frac{1}{2}$
1017	Elk River	—	—	—
	Totals	67 $\frac{1}{2}$	23	90 $\frac{1}{2}$

(*) Cooperative with Territory of Alaska.
 (**) Entirely supported by Territorial Funds.

DESCRIPTION.

For detailed description see Part II Annual Report for 1929. The following changes and additions should be noted:

3E—This road was relocated. The route now follows the shore

line, well above high tide, around the peninsula north of Haines. It is suitable for light motor traffic.

44B—This aviation field is located in the north end of the Skagway townsite. It is laid out 310 ft. by 1960 ft.

OPERATIONS DURING THE YEAR.

Important operations other than routine maintenance are summarized by subprojects as follows:

3E—Two and one-fourth miles of this road were reconstructed on a new location. The work involved the removal of 6,226 cu. yds. rock and 1,298 cu. yds. earth. 496 cu. yds. of surfacing were placed on three-fourths mile of road. Labor valued at \$1,000 was furnished by residents along the route.

14—A 60-ft. span was constructed (renewal) over Indian River.

14A—A 60-ft. section of bulkhead protecting the west abutment of footbridge over Indian River was rebuilt.

14B—Forty-nine interments of bodies from abandoned military posts were made. The road inside the boundaries of the cemetery was continued.

44B—Necessary surveys were made, the area cleared and grading is 40 per cent complete.

81—A landing dock, 30 ft. by 42 ft., was constructed off the shore opposite the mouth of Salmon River to replace the scow originally used.

EAGLE SUB-DISTRICT.

Supervised from the Juneau Office.

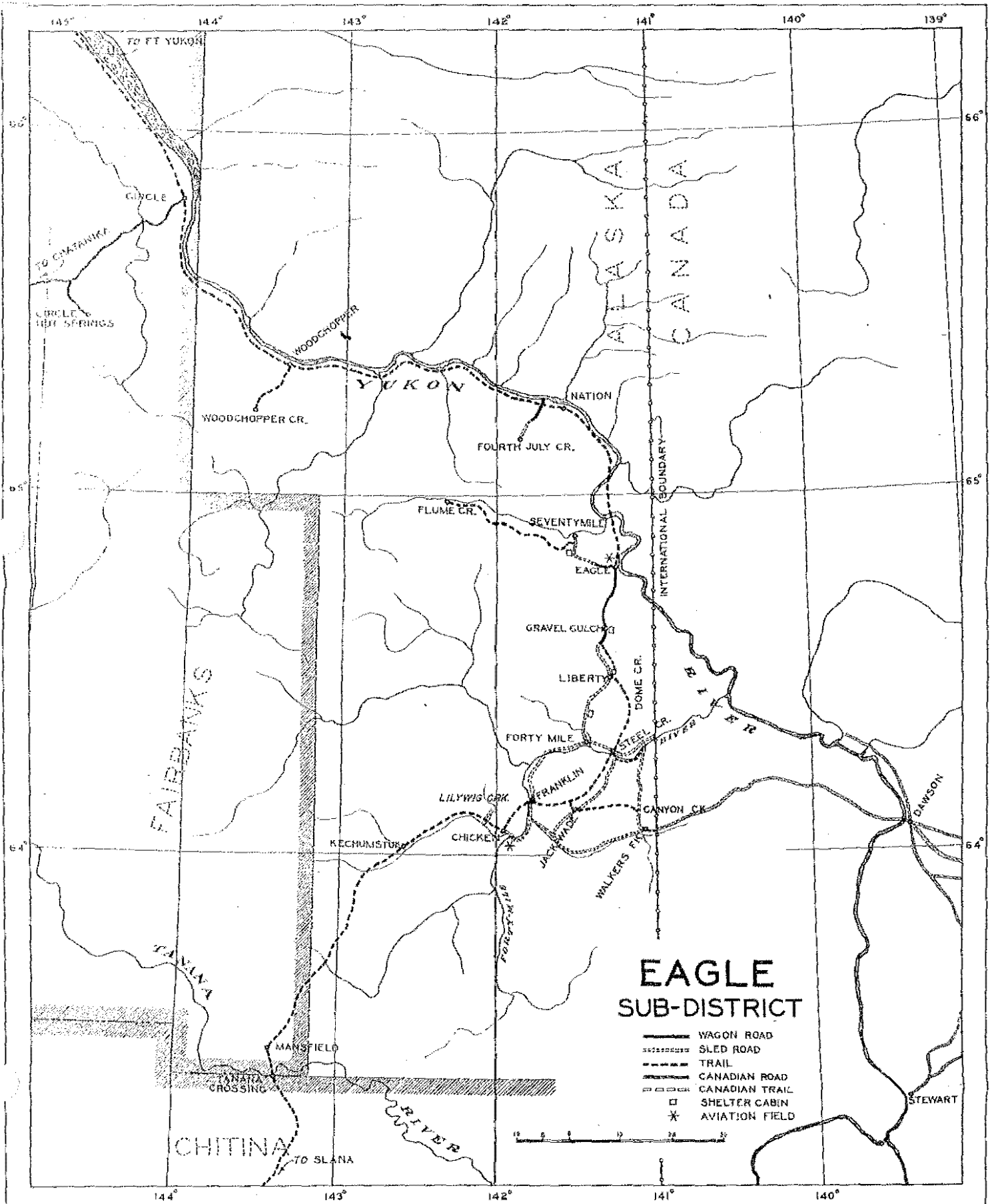
D. F. Millard, General Foreman in Charge, Eagle.

June 1 to October 31, 1929.

April 1 to June 30, 1930.

This sub-district includes that part of the Territory north of 63° 30' north latitude and east of the 144th meridian. It includes a region of early development in the history of Alaska. During the past few years, no extensive development has occurred. The system of winter sled roads and summer trails giving access from Eagle to the Fortymile and Seventymile districts, includes the most important projects within the sub-district.

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



EAGLE SUB-DISTRICT

- WAGON ROAD
- - - SLED ROAD
- · - · TRAIL
- - - CANADIAN ROAD
- · - · CANADIAN TRAIL
- SHELTER CABIN
- * AVIATION FIELD



145° 144° 143° 142° 141° 140° 139°

66° 65° 64°

TO COMATANKA
CIRCLE
CIRCLE HOT SPRINGS
WOODCHOPPER
WOODCHOPPER CR.
YUKON
NATION
FOURTH JULY CR.
FLUME CR.
SEVENTYMILE
EAGLE
GRAVEL GULCHING
LIBERTY
FORTY MILE
LILYWIS CRK.
FRANKLIN
JACKWIS
WALKERS FL.
CANYON CK
STEEL CR.
DOME CR.
RIVER
FAIRBANKS
TANANA
MANSFIELD
TANANA CROSSING
CHITINA
TO SLANA
DANSON
STEWART

ALASKA
CANADA

INTERNATIONAL BOUNDARY

SUMMARY OF SUB-PROJECTS.

Sub-Project No.	Name of Sub-Project	Road	Sled Road	Trail	Total Miles
11A	Eagle-Liberty	29	7	—	27
11AA	American Summit-Liberty	—	—	12	12
11B	Liberty-Fortymile	—	23	—	23
11C	Steel Creek-Jack Wade	—	15	—	15
11CC	Steel Creek-Jack Wade	—	—	15	15
11D	Steel Creek-Walker's Fork	—	27	—	27
11E	Eagle-Seventymile	4	14	49	69
11F	Jack Wade-Chicken	—	—	20	20
11G	Steel Creek-Canyon Creek	—	—	5	5
11H	Liberty-Dome	—	—	10	10
11I	Dome-Steel Creek	—	—	12	12
11J	Fortymile-Franklin	—	29	—	29
11K	Fortymile-Steel Creek	—	8	—	8
11L	Franklin-Chicken	—	19	—	19
11LI	Franklin-Chicken	—	29	—	29
11M	Jack Wade-Walker's Fork-Boundary	—	—	18	18
11MM	Jack Wade-Mouth Walker's Fork	—	12	—	12
11N	Lillywig Creek	—	1 $\frac{1}{2}$	—	1 $\frac{1}{2}$
11P**	Chicken Aviation Field	—	—	—	—
11Q**	Eagle Aviation Field	—	—	—	—
53	Eagle-Circle	—	—	160	160
65D	Kechumstuk-Tanana Crossing	—	—	60	60
65E	Chicken-Kechumstuk	—	—	28	28
56	Fourth of July Creek	5	5	—	10
57	Woodchopper Creek	—	—	8	8
59D**	Shelter Cabins 4th Division	—	—	—	—
Totals		29	174 $\frac{1}{2}$	358	591 $\frac{1}{2}$

(**) Entirely supported by Territorial Funds.

DESCRIPTION.

For detailed description see Part II Annual Report for 1929. The following additions and changes should be noted:

11P—The area was enlarged to total length of 1,000 ft., width varying from 164 ft. to 286 ft.

11Q—The area was enlarged to length 1,500 ft., width varying from 230 ft. to 350 ft.

OPERATIONS DURING THE YEAR.

The operations other than routine maintenance are summarized by sub-projects as follows:

11A—Six new culverts were installed and one 16-ft. bridge built.

11P—This landing field was enlarged to a length of 1,000 ft., the width varying from 170 ft. at the south end, 286 ft. at the center to 164 ft. at the north end. The new area was stripped, plowed and graded.

11Q—Three buildings of the abandoned military post were dismantled and removed from the area and the sites leveled. This provides additional area suitable for landing.

BETHEL SUB-DISTRICT.

Carl Lottsfeldt, Superintendent, Takotna.

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.

A much needed winter trail has been established extending from McGrath in the upper Kuskokwim Valley, via Aniak, Bethel, Goodnews Bay, Togiak, Dillingham and Naknek to Kanatak.

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, the Bear Creek sled road and Yukon-Kuskokwim Portage, which are cooperative projects.

SUMMARY OF SUB-PROJECTS.

Sub-Project No.	Name of Sub-Project	Sled Road	Trail	Total Miles
90C**	Shelter Cabins-3d Division	---	---	---
90D**	Shelter Cabins-4th Division	---	---	---
92A	Bethel-Quinhagak	---	90	90
92B	Bethel-Tuluksak	---	44	44
92C	Akiak-Russian Mission	---	75	75
92D	Bennett's Cutoff	---	18	18
92E	Yukon-Kuskokwim Portage	129	---	129
92F	Quinhagak-Goodnews Bay	60	---	60
92G	Goodnews Bay-Togiak	53	---	53
92H	Togiak-Nushagak	125	---	125
92I	Lewis Point-Naknek	86	---	86
92J	Naknek-Egegik	60	---	60
92L	Crooked Creek-Aniak	74	---	74
92M	Aniak-Tuluksak	60	---	60
92N	Aniak-Canyon Creek	45	---	45
92O	Tuluksak-Foothills	32	---	32
92P	Holy Cross-Kaltshak	---	53	53
92Q*	Upper Landing-Bear Creek	26	---	26
Totals		26	985	1,011

(*) Cooperation with Territory of Alaska.
 (**) Entirely supported by Territorial Funds.

DESCRIPTION.

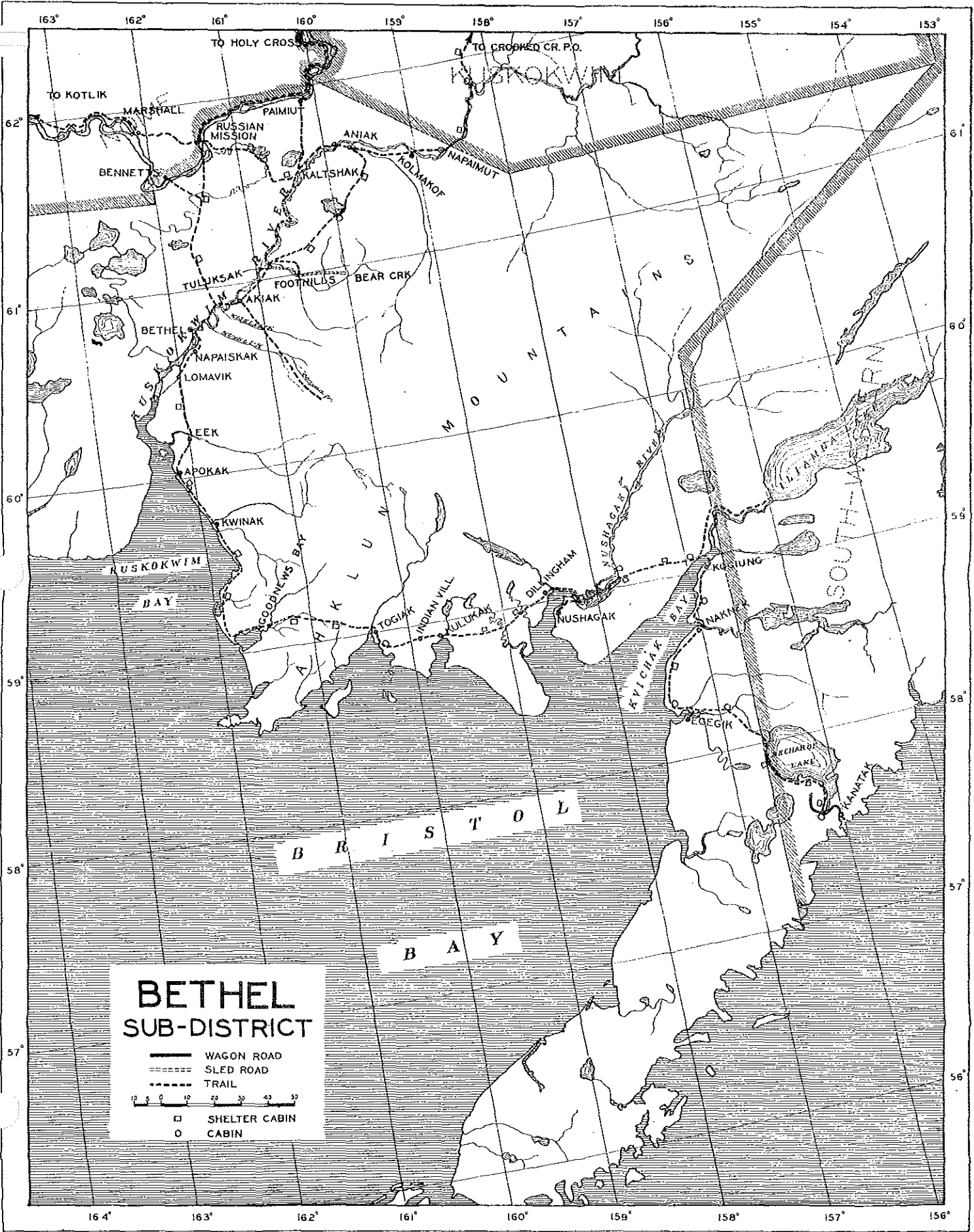
For detailed description see Part II Annual Report for 1929.

OPERATIONS DURING THE YEAR.

Important operations other than routine maintenance are summarized by sub-projects as follows:

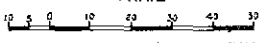
90C—Shelter Cabins, 3rd Division:

No. Route	Location	Work Done	Cost
92I	Portage Creek, 33 miles from Dillingham	12 ft. by 14 ft. log cabin with corrugated iron roof built	\$600.00



BETHEL SUB-DISTRICT

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



90D—Stoker Cabins, 4th Division:

No.	Location	Work Done	Cost
83M	Exotic, 25 miles below Kasaan	Additional bills for cabin	\$ 69.97
87O	Footline, 39 miles from Tolusak	New stove placed	15.00
	Baina Peak	Frame cabin 12 ft. by 14 ft. built	800.00
Total			\$865.97

92E—A high steel rail tram was constructed over the first portage from the Yukon River. A canal 3,000 ft. long, 7 ft. wide and 3½ ft. in depth was excavated across the second portage and a steel rail tram was partially completed over the third and last portage. The work involved laying 4,300 lin. ft. of track and the excavation of 2,375 cu. yds. of material. Three winches were installed for raising loaded cars up steep grades from the water.

92H—The section of trail between Togiak and Kulukuk, a distance of 30 miles was tripodded with 2 inch by 2 inch material. These tripods were placed 14 to the mile.

VALDEZ DISTRICT.

T. H. Huddleston, Supt., Valdez.

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

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

The Richardson Highway is supported by the Alaska Road Commission exclusively. Other expenditures in this district were either upon cooperative projects or exclusively Territorial projects.

SUMMARY OF SUB-PROJECTS.

Sub-Project	Name of Sub-Project	Road Miles
43A	Valdez-Ptarinigan Drop	34
43B	Ptarinigan Drop-Ernestine	30
43C	Ernestine-Willow Creek	29
35*	Valdez-Mineral Creek	8
36A**	Granby Road	5
26B**	South Second Street, Cordova	¼
64**	Valdez Dyke	—
60A**	Valdez Aviation Field	—
60B**	Upper Tonsina Aviation Field	—
78	Valdez Depot	—
Total		105¼

(*) Cooperative with Territory of Alaska.
 (**) Entirely supported by Territorial Funds.

DESCRIPTION.

For detailed description see Part II Annual Report for 1929. The following changes and additions should be noted:

60B—This landing field, 250 ft. by 1,000 ft., is located along the Richardson Highway west of the Upper Tonsina Roadhouse, Mile 80 from Valdez.

OPERATIONS DURING THE YEAR.

The important operations other than routine maintenance are summarized by sub-projects as follows:

4BA—Seven and one-half miles were regraded and widened. This involved the removal of 9,035 cu. yds. of rock. 10,798 cu. yds. of gravel were placed as surfacing on 2½ miles of road and in fills. 162 lin. ft. of framed bent trestles (renewals) were constructed and 44 lin. ft. of trestles replaced with fills. 54 metal culverts were installed.

4BB—12,106 cu. yds. of gravel were placed as surfacing on 8½ miles, completing the surfacing on this subproject. A 45-ft. truss bridge was replaced by fill requiring 1,360 cu. yds. of material. 29 lin. ft. of trestle bridges (renewals) were constructed and 16 metal culverts installed. A relocation of 750 ft. was constructed in Mile 34.

4C—38 lin. ft. of trestle bridges (renewals) were constructed and 7 metal culverts installed.

60—21,180 sq. ft. of brush fascine mattress were placed and loaded with 2,186 lin. ft. of ballast, consisting of rock rolled in wire netting, to protect the face of the dyke from scour.

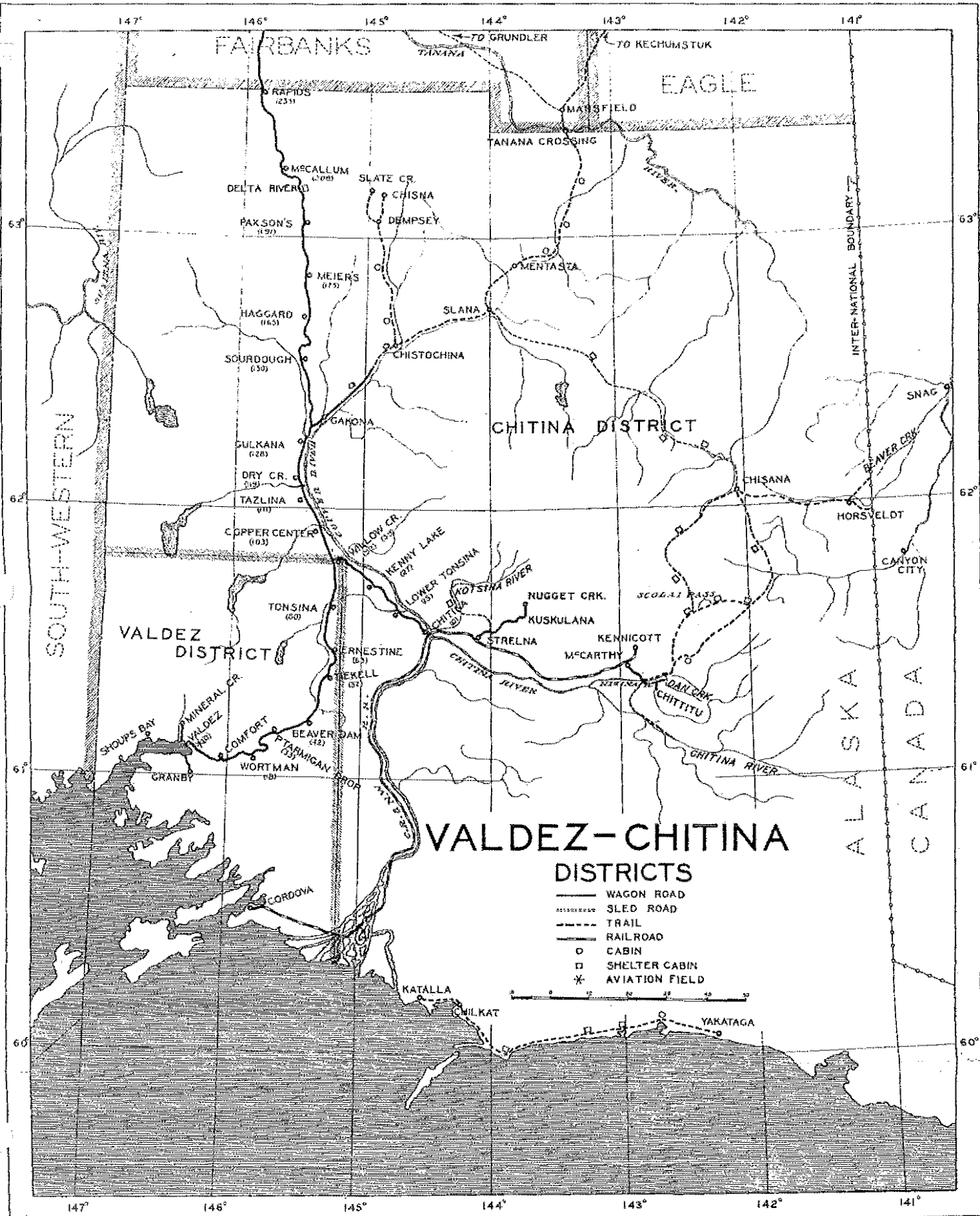
60B—The area was cleared, grubbed and leveled. 3.6 acres were cleared and grubbed, 1,950 cu. yds. of earth and 79 cu. yds. of boulders were removed. Timber was slashed back 250 ft. from each end of the field.

CHITINA DISTRICT.

R. J. Shepard, Superintendent, Chitina.
Frank Shipp, Asst. Superintendent, Chitina.
Wm. J. Niemi, Asst. Engineer, Chitina.

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

The most important projects within the district are the Richardson Highway extending from Chitina on the Copper River and Northwestern Railway up the Copper and Gulkana River Valleys and then across



FAIRBANKS

EAGLE

CHITINA DISTRICT

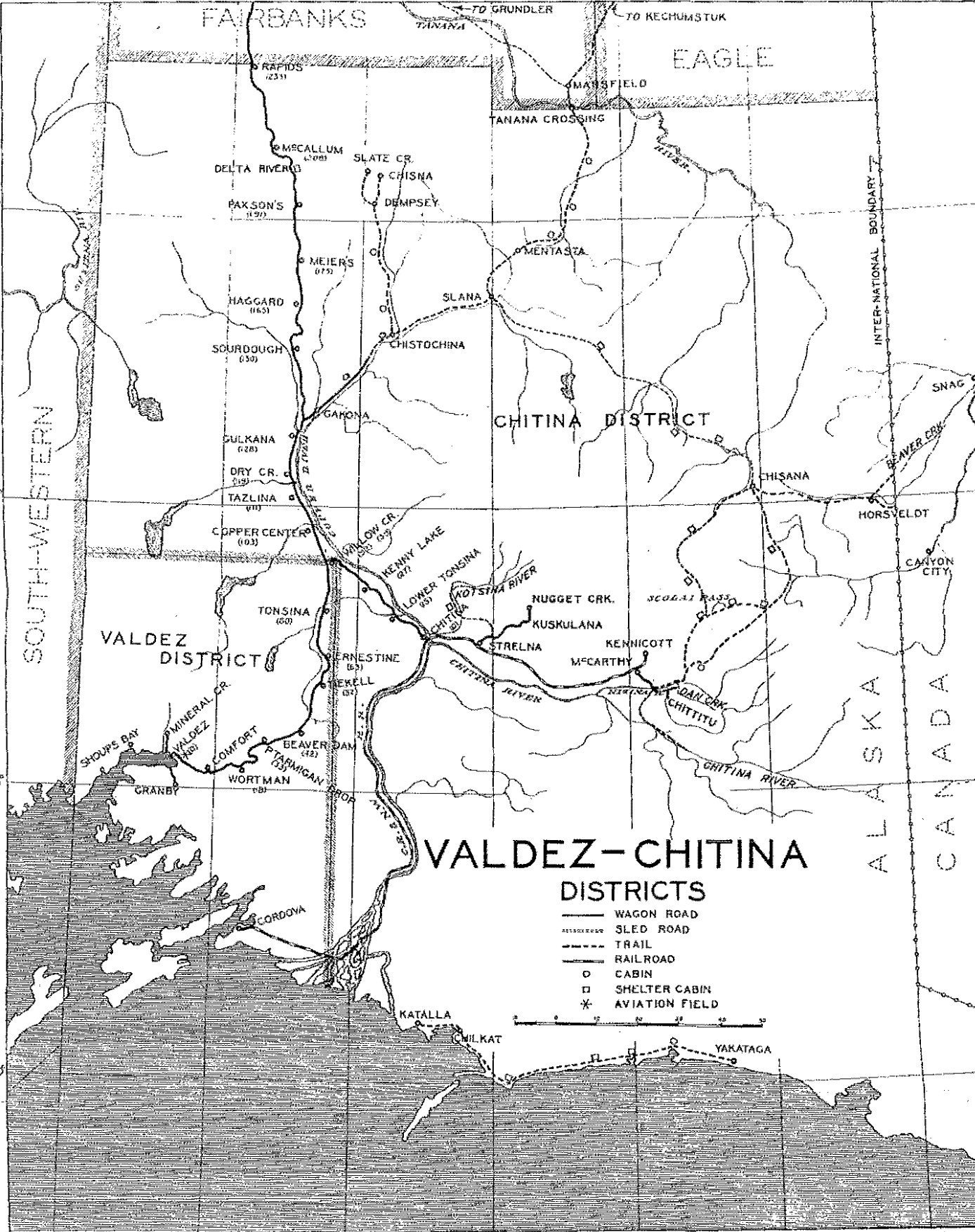
VALDEZ DISTRICT

VALDEZ-CHITINA DISTRICTS

ALASKA CANADA

SOUTH-WESTERN

INTERNATIONAL BOUNDARY



the Alaska Range through Isabelle Pass to Rapids on the Delta River, and the Gulkana-Chisana route now under construction.

The Richardson Highway and all other projects in this district are supported by the Alaska Road Commission exclusively with the exception of the McCarthy-Dan Creek Road, the Kotsina and Nizina-Chitina River trails which are supported by the Alaska Road Commission and the Territory jointly, and the Streina-Kuskulana Road, the Chitina Native School Road, Aviation Fields and Shelter Cabins which are supported by the Territory exclusively.

SUMMARY OF SUB-PROJECTS.

Sub-Project No.	Name of Sub-Projects	Road	Trail	Total Miles
6D	Chitina Depot	---	---	---
6E*	Chitina-Native School	1	---	1
6E**	Lower Tonsina Aviation Field	---	---	---
6G**	Copper Center Aviation Field	---	---	---
6B	Chitina-Tonsina	15	---	15
6A	Tonsina-Willow Creek	24	---	24
4D	Willow Creek-Gulkana	35	---	35
4E	Gulkana-Sourdough	21 1/2	---	21 1/2
4F	Sourdough-Mile 168	18	---	18
4G	Mile 168-Delta River	38	---	38
4H1	Delta River-Rapids	25 1/2	---	25 1/2
38CA**	Cordova Aviation Field	---	---	---
54	Nizina-Chisana	---	78	78
51A**	Chisana Aviation Field	---	---	---
54B**	Nabesna Aviation Field	---	---	---
56A	Katalla-Yakataga	---	60	60
67*	McCarthy-Dan Creek	29	---	29
57A	Nizina River Bridge	---	---	---
57B*	Nizina-Chitina River	---	25	25
57C	McCarthy-Kennecott River	1 1/2	---	1 1/2
57D	Chitina Branch	6	---	6
57E	Green Rutte Road	15	---	15
57F**	McCarthy Aviation Field	---	---	---
61A*	Streina-Kuskulana	12 1/2	---	12 1/2
61A*	Kotsina Trail	---	20	20
61B**	Nugget Creek Extension	5	---	5
61E	Fernan Trail	---	10	10
61F	Bremner Trail	---	30	30
65A	Gulkana-Chistochina	55	5	60
65B	Chistochina-Slate Creek	---	10	10
65C	Chistochina-Tanana Crossing	---	140	140
65G	Siana-Chisana	---	97	97
69C**	Shelter Cabins, 3rd Division	---	---	---
Totals		274	515	789

(*) Cooperative with Territory of Alaska.
 (**) Entirely supported by Territorial Funds.

DESCRIPTION.

For detailed description see Part II Annual Report for 1929. The following changes and additions should be noted:

54A—This landing field, 150 ft. by 1,000 ft., is located just north of the village of Chisana.

54B—This landing field, 200 ft. by 900 ft., is located on the west side of the Nabesna River opposite the mouth of Jack River.

57D—Length of this road extended to 6 miles.

61F—This trail extended. Total length 30 miles.

65A—This road is under construction. Length of usable road is 35 miles, trail 5 miles.

OPERATIONS DURING THE YEAR.

The important operations other than routine maintenance are summarized by sub-projects as follows:

4D—The Gulkana River bridge was renewed. The work involved the erection of three 100-ft. timber spans on creosoted pile foundations inclosed with rock filled cribs, and 188 lin. ft. of pile trestle approach.

4G—10 miles of road were regraded and widened, 25,184 cu. yds. of gravel were placed as surfacing on 16½ miles and 78 metal culverts were installed.

4H1—5¼ miles of road were regraded to standard width in heavy sidehill work. 2,294 cu. yds. of gravel surfacing were placed and 16 metal culverts installed.

6F—Additional leveling was performed.

54—A cable crossing for foot travelers was erected over the Chitstone River.

54A—The area was cleared of large stones and leveled. Proper markers were placed.

54B—The area was cleared of small brush and large stones and partially leveled. Proper markers were placed.

57D—Three-fourths mile was cleared and stripped preparatory to grading and one mile partially constructed was regraded and widened.

61F—One-half mile of trail was graded 4-ft. wide leading up from the Chitina River and 13 miles of new trail were cut.

65A—Three-fourths of a mile of relocation was constructed in Mile 2 involving the removal of 8,103 cu. yds. of material. Between Miles 6 and 16, 5¼ miles of road were regraded and widened to 32 ft. and 4¼ miles were constructed on relocations. Clearing and grubbing were completed to Mile 37 and the road partially graded. Heavy sidehill construction in Miles 26½ to 29 was partially completed. The bridge over the Chitochina River was constructed consisting of five 60-ft. spans and 1,748 lin. ft. of pile trestle, all of native timber procured near the site except chords and floorbeams for the spans. 41 metal culverts were installed.

65C—A definite road location was made over 18½ miles and 3 miles were cleared and grubbed preparatory to grading. Caches of supplies were placed in preparation of this season's work.

FAIRBANKS DISTRICT.

Frank Nash, Superintendent, Fairbanks.
C. E. Burglin, Junior Engineer, Fairbanks.

This district embraces that portion of the Territory between the 144th and 150th meridian 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 projects within this district are the Richardson Highway from Rapids to Fairbanks and the road to Circle, recently named the Steese Highway. 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 and Steese Highways are 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.

SUMMARY OF SUB-PROJECTS.

Sub-Project No.	Name of Sub-Project	Road	Sled Road	Trail	Total Miles
44A**	Richardson-Democrat Creek	1	3	—	4
45A	Rapids-Grundler	45	—	—	45
46	Grundler-Richardson	20½	—	—	20½
47	Richardson-Salchaker	30	—	—	30
47A	Lake Harding Road	18½	—	—	18½
48	Salchaker-Fairbanks	40	—	—	40
48A	Salcha Bridge	—	—	—	—
49	Summit-Chatanika	91½	—	—	91½
50A**	Cleary Creek	2½	—	—	2½
51	Fox-Olson	13	—	—	13
52A**	Lorne-Scaubling Mine	1½	—	—	1½
53	Summit-Fairbanks Creek	13	—	—	13
54A**	Summit-Fish Creek	51½	—	—	51½
55	Essex Creek	91½	—	—	91½
56A**	College Spur	12	—	—	12
57B**	Essex Dome	21½	—	—	21½
58C**	St. Patricks-Happy	33½	—	—	33½
59D**	Essex-Rougier	12	—	—	12
60	Fairbanks-Gilmore	13	—	—	13
61A**	Lucelle Road	21½	—	—	21½
62	Little Eldorado	6	—	—	6
63	Gilmore-Summit	7	—	—	7
64	Fairbanks-Chena Hot Springs	—	64	—	64
65A	Chena River Branch	—	35	—	35
66B**	Palmer Aviation Field	—	—	—	—
67C	Colorado Creek-South Fork	—	1½	—	1½

7K*	Olmes-Livengood	---	---	54	54
7N**	Farmers-Birch Hill	8 $\frac{1}{2}$	---	---	8 $\frac{1}{2}$
7NA**	Isabelie Creek	1 $\frac{1}{2}$	---	---	1 $\frac{1}{2}$
7NE**	Rallaine-Rickert	1	---	---	1
7R	Goldstream-O'Connor Creek	---	6	---	6
7S**	Graehl Bridge	---	---	---	---
7T**	Farmers-Chena Slough	5	2	---	7
7V	Wireless Road	1 $\frac{1}{2}$	---	---	1 $\frac{1}{2}$
7X**	Chena Hot Springs Aviation Field	---	---	---	---
7Y	Fairbanks Aviation Field	---	---	---	---
7Z	Fairbanks Aviation Field Road	1 $\frac{1}{2}$	---	---	1 $\frac{1}{2}$
15	Circle-Miller House	47	---	---	47
15A*	Central House-Circle Hot Springs	8 $\frac{1}{2}$	---	---	8 $\frac{1}{2}$
15C**	Circle Hot Springs Aviation Field	---	---	---	---
15D	Leech Cutoff	---	10	---	10
15F**	Miller House Spur	1 $\frac{1}{2}$	---	---	1 $\frac{1}{2}$
16	Chatanika-Miller House	87	---	---	87
16A**	U. S. Creek Branch	7	---	---	7
16B**	Eagle Creek Spur	1	---	---	1
16C	Chatanika-Miller House	---	87	---	87
23A*	Snowshoe-Beaver	---	---	117	117
23B	Beaver-Caro	75	---	---	75
23C	Rig Creek Trail	---	24	---	24
23D	Caro-Flat Creek	---	45	---	45
23E	Caro-Coldfoot	---	23	53	78
23F**	Chandalar Aviation Field	---	---	---	---
31	Caribou Creek	---	50	---	50
53A	Circle-Fl. Yukon	---	---	67	67
53B**	Fort Yukon Aviation Field	---	---	---	---
59	Fairbanks Bridge	---	---	---	---
59A	Fairbanks Depot	---	---	---	---
65F	Grundler-Tanana Crossing	---	30	94	124
65H**	Tanana Crossing Aviation Field	---	---	---	---
90D**	Shelter Cabins	---	---	---	---
Totals		477	380 $\frac{1}{2}$	337	1,244 $\frac{1}{2}$

(*) Cooperative with Territory of Alaska.

(**) Entirely supported by Territorial Funds.

DESCRIPTION.

For detailed description see Part II Annual Report for 1929. The following changes and additions should be noted:

7Y—This landing field has been enlarged by the addition of an area 1600 ft. square for use by lighter-than-air craft.

7Z—This road, $\frac{1}{2}$ mile in length, leads from the city limits of Fairbanks along the east side of the enlarged airport.

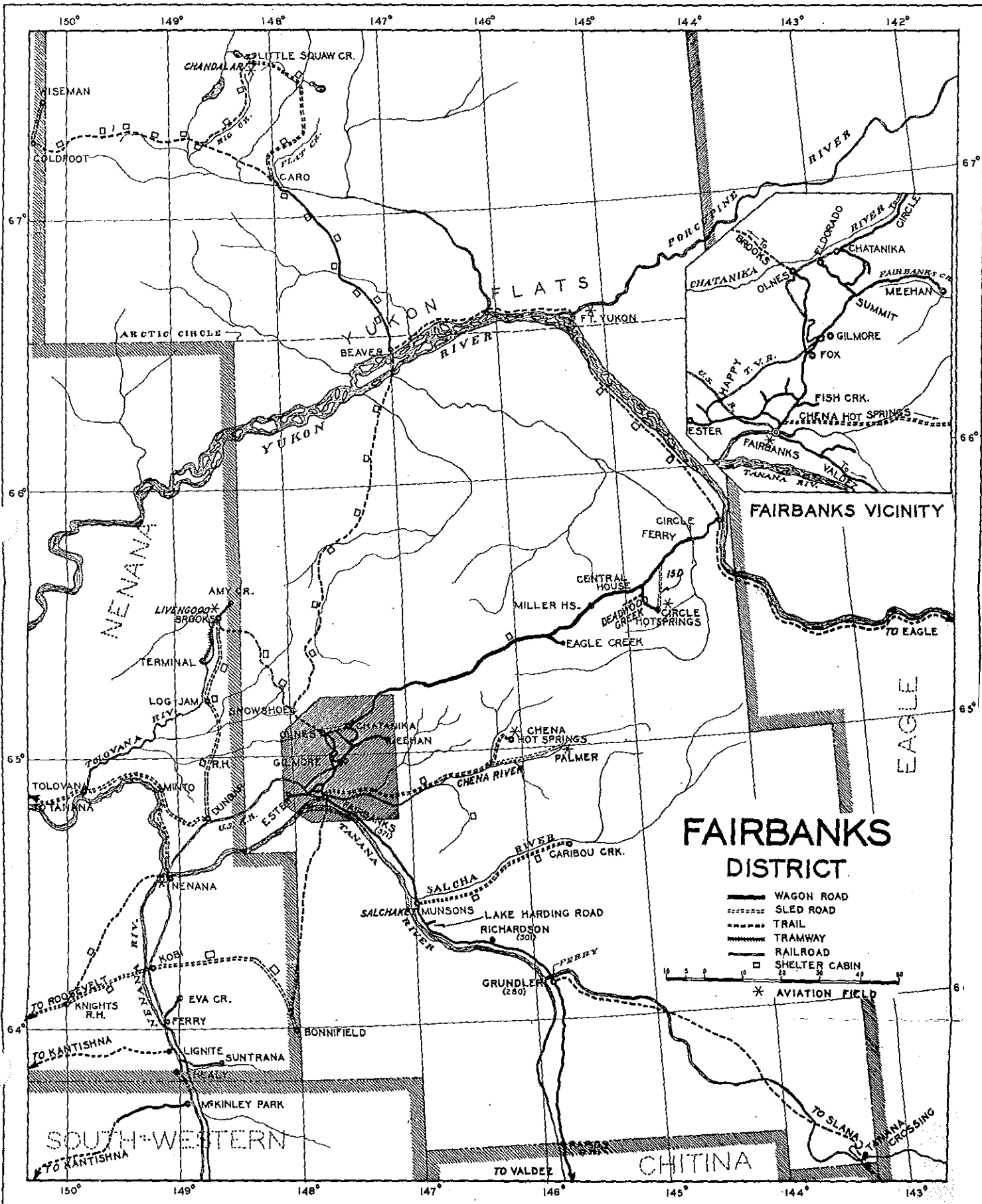
16A—This road branches from the Steese Highway at Mile 57.4 from Fairbanks, follows up the left limit of U. S. Creek, over the divide and down to Nome Creek, serving the Nome Creek Dredging Co. The road is 7 miles in length.

53B—An additional runway, 150 ft. by 600 ft., on the south side of the original runway was provided.

65H—This landing field, 300 ft. by 800 ft., is located on the left limit of the Tanana River opposite the village of Tanana Crossing.

OPERATIONS DURING THE YEAR.

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



150° 149° 148° 147° 146° 145° 144° 143° 142°

WISEMAN
 OLDFOOT
 CHANDALAR
 LITTLE SQUAW CR.
 CARO
 BEAVER RIVER
 YUKON RIVER
 FLATS
 FT. YUKON
 POILC LINE
 CHATANIKA
 BROOKS
 OLNES
 ELDOORDO RIVER
 FAIRBANKS CR.
 MEEHAN
 SUMMIT
 GILMORE
 FOX
 FISH CRK.
 CHENA HOT SPRINGS
 ESTER
 FAIRBANKS
 VALDEZ
 TANANA RIV.
 FAIRBANKS VICINITY
 NENANA
 AMY CR.
 LIVINGOOD
 BROOKS
 TERMINAL
 LOG JAM
 RIV.
 SNOWSHOES
 TOLOVANA RIV.
 DUNBAR
 U.S. R.R.
 GLENDALE
 CHENA HOT SPRINGS
 PALMER
 CHENA RIVER
 RIVER
 CARIBOU CRK.
 SALCHA RIVER
 SALCHAKET
 MUNSONS
 LAKE HARDING ROAD
 RICHARDSON (300)
 GRUNDLER (280)
 FERRY
 TO EAGLE
 EAGLE
 TO ROOSEVELT
 KNIGHTS R.H.
 TO KANTISHNA
 EVA CR.
 BONNIFIELD
 LIGNITE
 SUNTRANA
 MCKINLEY PARK
 SOUTH-WESTERN
 TO VALDEZ
 CHITINA
 TO SLANNA
 TANANA CROSSING

FAIRBANKS DISTRICT

- WAGON ROAD
- - - SLED ROAD
- · · TRAIL
- +—+— TRAMWAY
- +—+— RAILROAD
- SHELTER CABIN
- * AVIATION FIELD

150° 149° 148° 147° 146° 145° 144° 143°

67°

66°

65°

64°

4H2—4.7 miles were regraded and widened. Elimination of sharp curves required the excavation of 5,525 cu. yds. of material. 9 metal culverts were installed and 32 lin. ft. of framed trestle bridges built.

4K—Resurfacing of 4½ miles, requiring 2,229 cu. yds. of gravel was performed, 20 metal culverts were installed and 61 lin. ft. (renewal) of framed trestle bridges were constructed.

7C—A 120-ft. steel span, 16 ft. wide on creosoted pile foundations and 42 lin. ft. of pile driven approach trestle were erected over Noyes Slough near Fairbanks, replacing the original bridge damaged by high water. 45 lin. ft. of framed trestle bridges were renewed.

7I—The grading was extended 1 mile.

7Y—An area 1,500 ft. square was cleared adjoining the former aviation field on the south. A runway 49 ft. wide on a 547 ft. radius was stripped. Eight concrete anchors and a concrete base were constructed in readiness for the erection of a mooring mast. Funds for the work were provided by the Territory of Alaska, the Aero Arctic Society and the citizens of Fairbanks. Use of equipment and labor was contributed by the Fairbanks Exploration Company.

7Z—One-half mile of road was graded and 208 cu. yds. of gravel placed as surfacing.

15—19½ miles were regraded to standard and surfaced. 26,448 cu. yds. of gravel were placed as surfacing, and 13,400 cu. yds. were overcast in widening. 117 metal culverts were installed and 108 lin. ft. of trestle bridges were constructed.

15A—7 miles were grubbed and graded to width of 30 ft. between ditches. 2,209 cu. yds. of gravel were placed as surfacing, 1,640 lin. ft. of corduroy were placed and 41 metal culverts installed. 92 lin. ft. of frame bent trestle bridges were constructed.

16—16½ miles of road were widened 4 ft. and 81 metal culverts were installed.

16A—The route was cleared, grubbed and 6 miles graded. 4,176 lin. ft. of corduroy were laid and covered with material from the ditches. 17 metal culverts were installed. The Nome Creek Dredging Co. contributed a part of the funds for the work.

53B—A new runway, 150 ft. by 600 ft., was cleared, grubbed and leveled. All tall timber around the boundaries of the field was cut.

65H—The area was cleared, grubbed and leveled.

90D—Sheker Cabins, 4th Division.

No. Route	Location	Work Done	Cost
7JA	Moody's, $\frac{1}{2}$ mile from North Fork	New stove	\$ 18.00
7JA	11 miles from North Fork	New stove	18.00
16	82 $\frac{1}{2}$ miles from Fairbanks	18 ft. by 24 ft. log cabin erected	300.00
23B	14 miles from Beaver	Repairs	30.00
23B	36 miles from Beaver	Repairs	50.00
23R	40 miles from Beaver	Repairs	40.00
23B	56 miles from Beaver	Repairs	40.00
23D	27 miles from Caro	12 ft. by 14 ft. cabin built	250.00
53	22 miles from Circle	14 ft. by 16 ft. cabin built	253.32
53A	19 miles from Circle	12 ft. by 14 ft. cabin built	317.50
Total			\$1,316.82

NENANA SUB-DISTRICT.

Frank Nash, Supt., Fairbanks.

This sub-district is a part of the Fairbanks district and is under the supervision of that office. It is roughly described as extending south from the Arctic Ocean between 156° 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, Koyukuk, Livengood, Hot Springs and Bonfield.

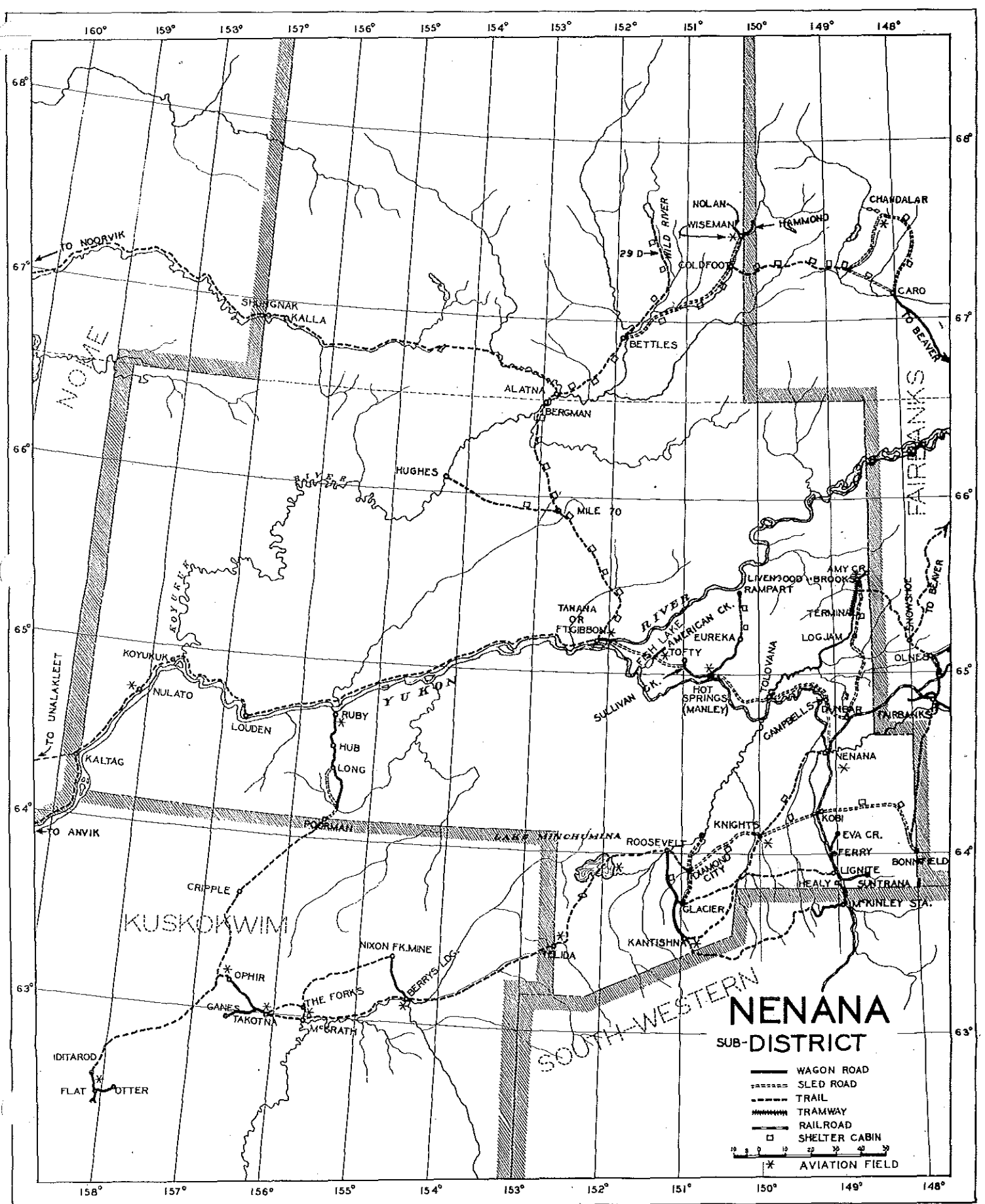
This area is well served so far as summer transportation is concerned by a number of navigable rivers, the most important of which are the Yukon, Tanana, Koyukuk, Tolovana and Kantishna. These rivers and The Alaska Railroad have made the construction of long roads unnecessary. A number of short roads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

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

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

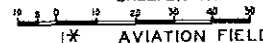
SUMMARY OF SUB-PROJECTS.

Sub-Project No.	Name of Sub-Project	Road	Sled Road	Trail	Total Miles
5A	Dunbar-Tanana	2	111	---	113
5B	Nenana-Campbells	---	30 $\frac{1}{2}$	---	30 $\frac{1}{2}$
5C**	Fish Lake-American Creek	4 $\frac{1}{2}$	---	---	4 $\frac{1}{2}$



NENANA SUB-DISTRICT

- WAGON ROAD
- - - SLED ROAD
- · · TRAIL
- ||||| TRAMWAY
- RAILROAD
- SHELTER CABIN
- * AVIATION FIELD



Map labels include: NOORVIK, SPRINGNAK, KALLA, BETTLES, ALATNA, BERGMAN, HUGHES, MILE TO, TANANA OR FT. GIBBON, RIVER, AMERICAN CK., EUREKA, TOFTY, HOT SPRINGS (MANLEY), SULLIVAN, TOLOVANA, GAMPELLS, NEAR, NENANA, KNIGHTS, KOBI, EVA CR., FERRY, BONNIFIELD, HEALY, SUSTRANA, MINLEY STA., KANTISHNA, GLACIER, ROOSEVELT, WITICHUMINA, NIXON FK. MINE, BERRYS LGS., THE FORKS, OPHIR, GANES, TAKOTNA, MCBRATH, IDITAROD, FLAT, OTTER, Cripple, KUSKOKWIM, KALTAG, NULATO, LOUDEN, RUBY, HUB, LONG, Koyuk R., NOLAN, WISEMAN, HAMMOND, CHANDALAR, CARO, TO BEAVER, FAIRBANKS, TO BEAVER, SNOWSHOE, TO BEAVER, TO UNALAKLEET, TO ANVIK.

5E**	American Creek Aviation Field	---	---	---	---
5F**	Tanana Aviation Field	---	---	---	---
5F	Illinois Creek-Moran Creek	---	---	24	24
4*	Rampart-Eureka	4 1/2	25	---	27 1/2
17	Tanana-Katlag	---	---	257	257
17C**	Nulato Aviation Field	---	---	---	---
17D**	Tanana-Koyukuk Station Telephone Line	---	---	---	---
22*	Hot Springs-Sullivan Creek	10	---	---	10
29	Tanana-Bettles	---	---	156	156
29A	Bettles-Coldfoot	---	52 1/2	---	52 1/2
29C	Mile 70-Hughes	---	---	60	60
29D	Wild River Trail	---	---	57	57
29E**	Bettles River Aviation Field	---	---	---	---
30*	Hot Springs Landing-Eureka	24	---	---	24
30A	Hot Springs-Tofry	---	15	---	15
30B**	Manley Hot Springs Aviation Field	---	---	---	---
38A	Ruby-Long	28 1/2	---	---	28 1/2
38E	Long-Poorman (summer)	20	---	---	20
38E	Long-Poorman (winter)	---	29	---	29
38K**	Ruby Aviation Field	---	---	---	---
38L**	Ruby Aviation Field Road	1 1/4	---	---	1 1/4
45	Kobi-Eureka	---	95	---	95
46A	Roosevelt-Kantishna	6	23	---	34
46B	Lignite-Kantishna	---	---	65	85
46C	Nenana-Knight's Roadhouse	---	---	41	41
46D	Diamond-Telida	---	---	93	93
46F*	Nenana Cemetery Road	2 1/2	---	---	2 1/2
46G	Kobi-Bonified	---	45	---	45
46H**	Lake Minchumina Aviation Field	---	---	---	---
46I**	Kantishna Aviation Field	---	---	---	---
46E**	Telida Aviation Field	---	---	---	---
46M**	Nenana Aviation Field	---	---	---	---
47	Coldfoot-Wiseman	---	11	---	11
47A**	Wiseman Aviation Field	---	---	---	---
47B	Nolan Branch	4 1/2	3	---	5 1/2
47C	Wiseman-Hammond	8	---	---	8
55*	Dunbar-Brooks	---	60	---	60
55B**	Brooks-Livengood Creek	6 1/2	---	---	6 1/2
55BA**	Amy Creek Branch	1	---	---	1
55C	Brooks Tram	13	---	---	13
55D**	Brooks Aviation Field Road	1 1/4	---	---	1 1/4
55E**	Livengood Aviation Field	---	---	---	---
55	Ferry-Eva Creek	11 1/2	---	---	11 1/2
57A**	Healy Aviation Field	---	---	---	---
59D**	Shelter Cabins	---	---	---	---
	Totals	147 1/2	661 1/2	773	1,422

(*) Cooperative with Territory of Alaska.
 (**) Entirely supported by Territorial funds.

DESCRIPTION.

For detailed description see Part II Annual Report for 1929. The following changes and additions should be noted:

5E--This field was enlarged to approximately 300 ft. by 1,100 ft.

17C--This field was enlarged to 325 ft. by 1,100 ft.

29E--This field was enlarged to 350 ft. by 1,150 ft.

38E--Usuable length of this road was extended 1 mile. Total length 20 miles.

*Long-Poorman
(Summer Trail)*

OPERATIONS DURING THE YEAR.

The important operations, other than routine maintenance, are summarized by sub-projects as follows:

5E—The field was enlarged. 7.1 acres were cleared, stripped and leveled. 500 lin. ft. of drainage ditches were constructed.

11C—The field was enlarged. 3.8 acres were cleared, grubbed and leveled. The original area was leveled.

17D—288 tripods and 96 poles were erected. 2¼ miles of new line (renewal) were constructed.

29A—3 miles of relocations were constructed consisting of clearing, grubbing and short sections of grading on hillsides.

Poly-Long
38A—1,136 cu. yds. of gravel were placed as surfacing on 2½ miles. 23 metal culverts were installed.

*Long-Room
(Banner)*
38E—1 mile of new road was graded. Clearing and grubbing were completed over 5½ miles and 9,490 lin. ft. of corduroy were placed ready for covering. 49 metal culverts were installed and 51 lin. ft. of bridges constructed. In addition to the above new work, 8 miles were regraded and ditched.

47—9 native timber stringer bridges (renewals) totaling 350 lin. ft. were constructed.

63C—7,047 lin. ft. of new track (renewal) and 430 lin. ft. of trestle were constructed.

80D—Shelter Cabins, 4th Division.

No.	Route	Location	Work Done	Cost
29	12	miles from Tanana	Stove installed	\$ 18.79
29	70	miles from Tanana	Stove installed	19.00
29	96	miles from Tanana	Stove installed	19.00
29A	North Fork, 23 miles from Bettles	12 ft. by 14 ft. cabin built		250.00
46C	36	miles from Nenana	Repairs and stove installed	50.00
46E	52	miles from Diamond	Repairs	50.00
46F	93	miles from Diamond	Stove installed	19.36
Total				\$426.15

SOUTHWESTERN DISTRICT.

M. C. Edmunds, Superintendent, Anchorage, Alaska.

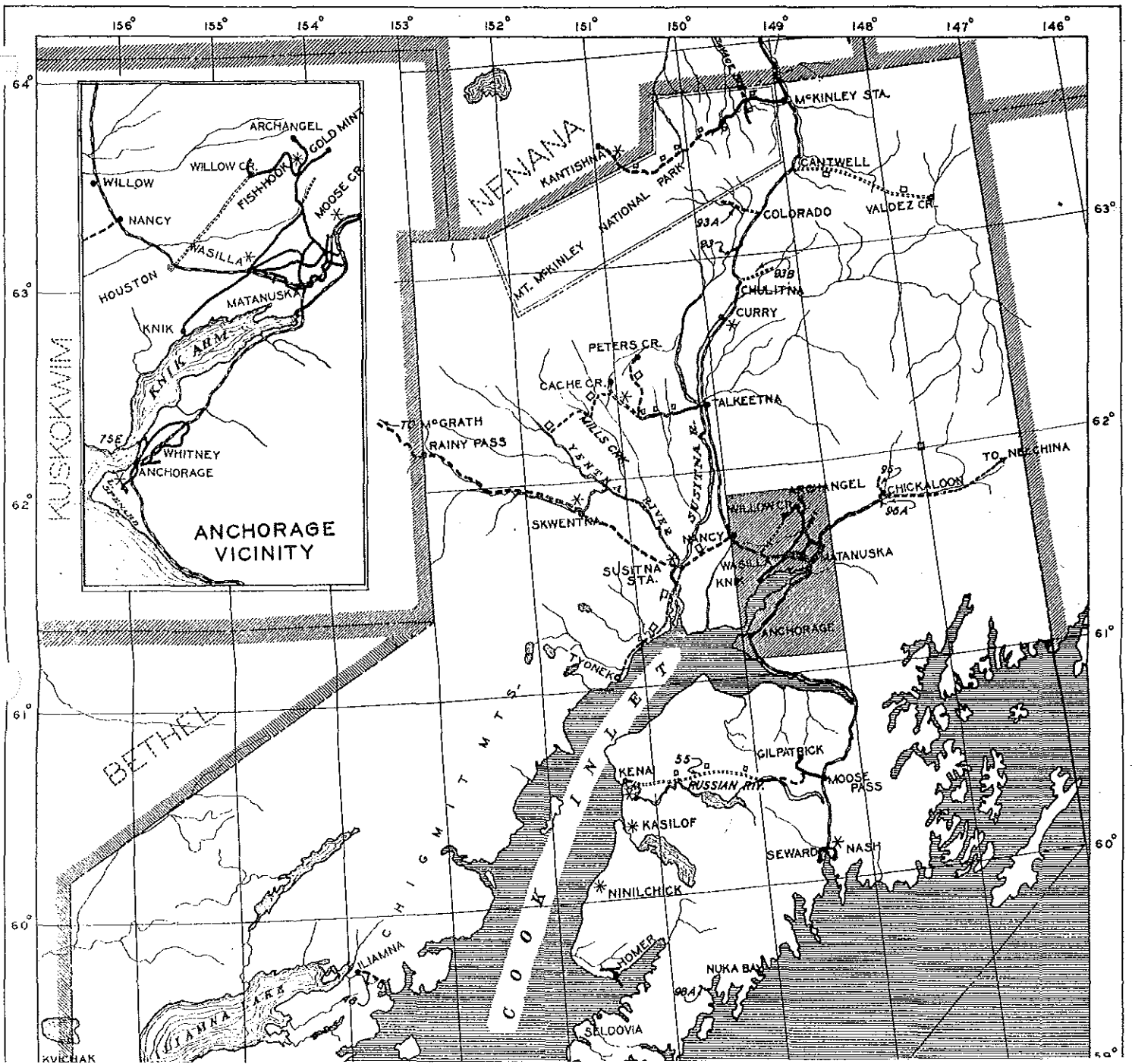
Anton Eide, Assistant Superintendent, Seward, Alaska.

Fred J. Spach, Asst. Engineer, Anchorage, Alaska.

H. E. D. Wallace, Asst. Engineer, Mt. McKinley Park, Alaska.

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

The Alaska Railroad, the Yentna River, 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 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, less important projects by the Alaska Road Commission and the Territory jointly, and the purely local projects by the Territory exclusively.

SUMMARY OF SUB-PROJECTS.

Sub-Project	Road	Sled Road	Trail	Total Miles
Seward-Nash	2½	—	—	2½
Leward Creek Flood Control	—	—	—	—
Seward Aviation Field	—	—	—	—
Susitna-Rainy Pass	—	—	127	127
Nancy-Susitna	—	—	22	22
Susitna-Tyonek	—	—	46	46
Susitna Aviation Field	—	—	—	—
Archangel Extension	5½	—	—	5½
Sherry Branch	—	—	1	1
Palmer-Fishhook	8½	—	—	8½
Palmer-Matanuska River	1½	—	—	1½
Willow Creek Extension	13½	—	—	13½
Gold Chord Branch	2	—	—	2
Wasilla-Fishhook	16	—	—	16
Wasilla-Knik	14½	—	—	14½
Palmer-Springer	3	—	—	3
Wasilla-Finger Lake-Palmer	12	—	—	12
Moose-Palmer	8	—	—	8
Wasilla-Matanuska	7¾	—	—	7¾
Matanuska Trunk Road	8	—	—	8
Palmer-Matanuska	6¼	—	—	6¼
Houston-Willow Creek	—	30	—	30
Fishhook-Goldmint	4¼	—	—	4¼
Edmund Road	3	—	—	3
Bogard Road	7½	—	—	7½
Moose Creek Trail	—	—	12	12
Werner Connection	1¾	—	—	1¾
Moose Creek Aviation Field	—	—	—	—
Fishhook Aviation Field	—	—	—	—
Wasilla Aviation Field	—	—	—	—
Wasilla Aviation Field Road	¾	—	—	¾
McKinley Park Road	43½	—	43½	87
Iliamna Bay-Iliamna Lake	—	—	12	12
Talkeetna-Cache Creek	23½	18	—	41½
Cache Creek Trail	—	—	16	16
Peters Creek Trail	—	—	14¾	14¾
Tazra-Mills Creek	—	—	19	19
Mile 32-Spruce Creek	—	7½	—	7½
Mills Creek-Cache Creek	—	—	35	35
Cache Creek Aviation Field	—	—	—	—
Kenai-Russian River	—	60	—	60

55A**	Kenai Aviation Field	---	---	---
75*	Anchorage Loop	19½	---	19½
75A**	Anchorage-Lake Shepard	4	---	4
75C**	Chester Creek Boat Landing	1	---	1
75D	Anchorage Depot	---	---	---
75E*	McDonald Branch	1¼	---	1¼
75H**	Spenard Aviation Field	---	---	---
75I**	Oilwell Road	2¼	---	2¼
75J**	Anchorage Aviation Field	---	---	---
76	Cantwell-Valdez Creek	---	55	55
76A**	Valdez Creek Aviation Field	---	---	---
79	Seward Depot	---	---	---
90C**	Shelter Cabins, 3rd Division	---	---	---
90D**	Shelter Cabins, 4th Division	---	---	---
92K	Egegik-Kanatak	---	85	85
93	Chulitna Trail	---	3	3
93A*	Bull River Trail	---	12	12
93B*	Indian River	---	9	9
93C**	Curry Aviation Field	---	---	---
93D	Chulitna Tram	---	---	---
94	Kodiak-Abberts	5	---	5
95	Kanatak-Becharof Lake	8¾	---	8¾
95B	Larsen Bay-Karluk River	---	3	3
96	Chickaloon-King River	---	6½	6½
96A	Chickaloon Cable	---	---	---
96B	Chickaloon-Nelchina	---	51	51
98*	Homer Spit	13½	---	13½
98A*	Nuka Bay Trail	---	1¼	1¼
98B**	Ninilchik Aviation Field	---	---	---
98C**	Kasilof Aviation Field	---	---	---
98D**	Kasilof Road	2	---	2
Totals		248	189	500½ 937½

(*) Cooperative with Territory of Alaska.

(**) Entirely supported by Territorial Funds.

DESCRIPTION.

For detailed description see Part II Annual Report for 1929. The following changes and additions should be noted:

10D—This landing field has been relocated north of the Radio Station Road and one mile from Seward. The field consists of two runways, the north-south runway being 200 ft. by 1,400 ft. and the east-west runway 200 ft. by 1,200 ft.

35DA—This road branches from the Willow Creek Extension, Route 35D, at Mile 3.4. It follows the left limit of Gold Chord Creek for one-half mile, thence crossing to the right limit it follows to the head of the creek. It serves three mines, only one of which is now producing.

46D—This road extended to a total length of 43½ miles.

51E—Correct length is 35 miles.

75J—This landing field is located south of the Oilwell Road, one-half mile east of the Anchorage townsite. It consists of two runways, the north-south leg being 400 ft. by 2,260 ft. and the east-west leg, 400 ft. by 1,600 ft.

76A—This landing field is located on the bench on the right limit

of Valdez Creek opposite discovery claim. The field will consist of one 200 ft. by 1,200 ft. runway.

93D—This cable passenger tram is located over the Chulitna River 20 miles from the railroad.

96B—Trail extended to 51 miles in length.

98D—This road as projected will extend from the cannery at the mouth of the Kaslof River, up the right bank of the river for a distance of 7 miles, serving a group of fur farmers. 2 miles have been sufficiently improved to allow the passage of wagons.

OPERATIONS DURING THE YEAR.

The important operations, other than routine maintenance, are summarized by sub-projects as follows:

16D—Both runways were cleared, grubbed and stripped preparatory to leveling. The city of Seward contributed \$1,500 toward the cost of the work.

35D—Construction of the relocation, begun last year, was completed. The work included $\frac{3}{4}$ mile sidehill grading partly in rock, 1,024 cu. yds. gravel surfacing placed on $1\frac{1}{4}$ miles, 13 metal culverts installed and one 14-ft. span bridge constructed.

35DA—Construction of this new road was completed. The work included 2 miles grading, 20% solid rock, 1,407 cu. yds. gravel surfacing placed on $1\frac{1}{4}$ miles, 11 metal and 1 timber culvert installed.

35E—11 miles were regraded and widened 12 ft., 736 cu. yds. gravel placed as surfacing over 1 mile and 14 metal culverts installed.

35K— $1\frac{1}{2}$ miles were regraded and widened 19 ft., 377 cu. yds. gravel surfacing placed on $\frac{3}{4}$ mile road and 2 metal culverts installed.

35L—1,130 lin. ft. of brush corduroy were laid 18 ft. wide and 875 cu. yds. of gravel surfacing placed on $\frac{3}{4}$ mile of road on the flats near Matanuska.

35O—2,431 cu. yds. of gravel surfacing were placed on 2 miles of road and 2 metal and 1 rock culvert installed.

46D—This project is cooperative with the National Park Service, that Service providing the larger part of the funds for its construction.

During the past season new construction was advanced from Sable Pass, Mile 38 $\frac{1}{4}$, to East Fork, Mile 43 $\frac{1}{4}$. 13 miles, previously on a temporary location, were graded between Miles 29 and 31. Preliminary preparation such as ditching and stripping wet sections was advanced to Mile 53. $\frac{3}{4}$ mile of heavy rock sidehill grade in Mile 44

was opened up. 136 metal culverts were installed, 7,406 cu. yds. of gravel were placed as surfacing between the railroad and Mile 27 and 13,402 cu. yds. between Miles 29 and 43½.

403 lin. ft. of standard pile driven trestle and 86 lin. ft. of frame bent trestle were constructed.

One 14 ft. by 16 ft. cabin and two combination garages and caches, 20 ft. by 45 ft. were constructed for storage of supplies. A new warehouse, 30 ft. by 30 ft. and oil shed 15 ft. by 34 ft. were erected at the railroad. The buildings formerly located west of the railroad were moved to the east side at the request of The Alaska Railroad and the old warehouse converted into a garage.

Necessary maintenance of the road, coach road and trails was performed.

Expenditures to date are classified as follows:

Office building	\$ 1,777.68
Warehouse and garage, Headquarters	6,699.49
Cabins and caches	8,791.22
Trail tents	732.50
Trail construction	10,699.53
Reconnaissance	590.00
Road construction	\$26,314.70
Road maintenance	42,024.76
Supplies and materials on hand	23,111.98
Total	\$458,114.82
Fiscal year 1922	\$ 590.00
1923	2,528.99
1924	4,951.74
1925	56,788.17
1926	52,589.40
1927	17,933.02
1928	61,590.39
1929	71,351.39
1930	160,821.31
Total	\$458,114.82
National Park Service	\$481,542.25
Territory of Alaska	732.50
Alaska Road Commission	24,839.82
Contributed	700.25
Total	\$458,114.82

For the current working season (f. y. 1931) \$160,000 of Park Road funds have been allotted.

48—1 mile was widened from 8 to 10 ft. requiring the removal of 2,468 cu. yds. solid rock, 800 cu. yds. loose rock and 560 cu. yds. common excavation.

51—2,047 cu. yds. of gravel were placed as surfacing on 2.3 miles and 750 lin. ft. of corduroy 14 ft. wide laid.

75J—This landing field was cleared, plowed and leveled. The city of Anchorage furnished the ground and contributed \$1,800 toward the cost of construction.

76A—A portion of the field was plowed preparatory to leveling.

90C—Shelter Cabins, 3rd Division:

The following work was accomplished:

No. Route	Location	Work Done	Cost
51C	Mouth of Clearwater	Corrugated iron roof and lumber floor installed	\$ 325.00
52K	Rapids 84 miles from Kanatak	12 ft. by 14 ft. lumber cabin erected	493.59
94B	26 miles from Chickaloon	12 ft. by 14 ft. log cabin erected	550.00
Total			\$1,368.59

93D—A cable passenger tram of 200 ft. span was erected.

94—Narrow sections were widened requiring the removal of 731 cu. yds. solid rock and 1,266 cu. yds. common excavation. 755 cu. yds. surfacing were placed and 9 metal culverts installed.

96B—The trail was extended 15 miles. $\frac{1}{2}$ mile sidehill grading was performed and one 100-ft. span cable tram for passengers was erected over Hicks Creek.

98—21 metal culverts were installed.

98D—The route was cleared and grubbed to Mile 2.4. 695 lin. ft. of corduroy 18 ft. wide were laid and 0.6 mile hand graded.

KUSKOKWIM DISTRICT.

Carl Lottsfeldt, Superintendent, Takotna.

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

This district comprises one of the most inaccessible parts of Alaska. Freight for Takotna 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 Alaska Railroad, to Holy Cross. There it is transferred to small 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, the Ganes Creek and Little Creek Roads are supported exclusively by the Territory, the Iditarod-Flat and Ophir-Takotna Roads by the Territory and Alaska Road Commission jointly, and the remaining projects exclusively by the Alaska Road Commission.

SUMMARY OF SUB-PROJECTS.

Sub-Project No.	Name of Sub-Project	Road	Sled Road	Trail	Total Miles
26C	Rainy Pass-Big River	—	—	110	110
26DA	Takotna-Ophir	—	20	—	20
26DB	Ophir-Dishkakket	—	—	55	55
32A	Takotna-Flat	—	—	95	95
32AA	Takotna-Flat (via Moore Creek)	—	—	93	93
32AB	Moore Creek	—	—	7	7
32AC	Candle Creek-Takotna	—	—	12	12
32B*	Iditarod-Flat	8	—	—	8
32C	Ophir-Iditarod	—	—	76	76
32D	Flat-Crooked Creek (Winter)	—	—	54	54
32DD	Flat-Georgetown (Summer)	—	—	65	65
32E**	Takotna Aviation Field	—	—	—	—
32F	Takotna Depot	—	—	—	—
33C	Flat City-Flat Creek	5	—	—	5
33D	Head Flat Creek-Willow Creek	4½	—	—	4½
33E	Willow Creek-Chicken Creek	3	—	—	3
33F	Flat City-Otter Discovery	3	—	—	3
33G	Candle Landing-Candle Creek	9	—	—	9
33H**	Flat Aviation Field	—	—	—	—
34A	Flat-Holy Cross-Anvik	—	—	103	103
34B	Iditarod-Shageluk-Anvik	—	—	85	85
38B	Poorman-Cripple	—	—	47	47
38C	Ophir-Cripple (Winter)	—	—	47	47
38D*	Ophir-Takotna	22	—	—	22
38DA**	Little Creek Road	3	—	—	3
38F	Poorman-Ophir	—	—	125	125
38G	Takotna-Takotna Landing	1½	—	—	1½
38H**	Ganes Creek Road	15¾	—	—	15¾
38M**	Ophir Aviation Field	—	—	—	—
64A	Cripple-Cripple Mt. (Summer)	—	—	12	12
64AA	Cripple-Cripple Mt. (Winter)	—	—	20	20
64A	McGrath-Takotna (Summer)	—	—	.5	.5
64AA	McGrath-Takotna (Winter)	—	—	17	17
64B	McGrath-Tellida	—	—	92	92
64C	McGrath-Candle Creek	—	—	11	11
64D	Nixon Fork-Nixon Mine	—	—	37	37
64E	Takotna-Twin Peaks	—	—	12	12
64F	Medfra-Nixon Mine	12	—	—	12
64G	Nixon Fork-Takotna (Summer)	—	—	15½	15½
64GG	Nixon Fork-Takotna (Winter)	—	—	14½	14½
64H**	McGrath Aviation Field	—	—	—	—
64J**	Medfra Aviation Field	—	—	—	—
99D**	Shelter Cabins	—	—	—	—
Totals		86¾	82½	1,147½	1,316¾

(*) Cooperative with Territory of Alaska.

(**) Entirely supported by Territorial Funds.

DESCRIPTION.

For detailed description see Part II Annual Report for 1929. The following changes and additions should be noted:

38H—This road was extended up Ganes Creek to total length of 15¾ miles.