

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

EXTRACT FROM THE ANNUAL REPORT OF THE
CHIEF OF ENGINEERS, 1931



WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS

1931

Part I

ANNUAL REPORT OF THE CHIEF OF ENGINEERS, 1931

EXTRACT

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MAINTENANCE OF ROADS, BRIDGES
AND TRAILS, ALASKA

BOARD OF ROAD COMMISSIONERS
FOR ALASKA



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

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, September 28, 1931.

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BOARD OF ROAD COMMISSIONERS FOR ALASKA

OFFICERS OF THE BOARD

President: Maj. Malcolm Elliott, Corps of Engineers, United States Army.

Engineer officer: Maj. Layson E. Atkins, Corps of Engineers, United States Army.

Secretary and disbursing officer: First Lieut. James G. Christiansen, Corps of Engineers, United States Army, to July 31, 1930; First Lieut. Raymond B. Oxrieder, Corps of Engineers, United States Army, August 1, 1930, to January 31, 1931; and First Lieut. Leland B. Kuhre, Corps of Engineers, United States Army, February 1, 1931, to date.

Military assistants, under the immediate orders of the president of the board: First Lieut. James G. Christiansen to November 3, 1930; First Lieut. Raymond B. Oxrieder to July 31, 1930, and from February 1, 1931, to date; First Lieut. Leland B. Kuhre to Jan-

¹ Exclusive of available funds.

uary 31, 1931; First Lieut. Albert H. Burton, Corps of Engineers, United States Army, July 20, 1930, to date; and First Lieut. Walter W. Hodge, Corps of Engineers, United States Army, November 5, 1930, to date.

Organization and duties.—The board was constituted by an act of Congress approved January 27, 1905, and its duties are defined in that act as amended by Congress January 27, 1905, May 14, 1906, and March 3, 1913. The law prescribes that the board shall consist of three members, one of whom shall be an Engineer officer, and the others officers of that part of the Army stationed in said district.

The board has the power and the duty, upon its own motion or upon petition, to locate, lay out, construct, and maintain wagon roads and pack trails from any point on the navigable waters in the District of Alaska to any town, mining or other industrial camp or settlement, or between any such towns, camps, or settlements therein, if in its judgment such roads or trails are needed and will be of permanent value for the development of the district.

The money therefor is derived, in part, from congressional appropriations and in part from the Alaska fund made up of moneys collected for occupation or trade license outside of the incorporated towns in the Territory, 65 per cent of which fund is devoted to the construction and maintenance of wagon roads, bridges, and trails in the said Territory.

The substance of the laws governing the operations of the board is printed on pages 2144 and 2145 of the Annual Report of the Chief of Engineers for 1929. The following act of Congress, approved May 15, 1930 (Pub. No. 228, 71st Cong.), provides for a study regarding the construction of a highway from the United States to Alaska:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States is hereby authorized to designate three special commissioners to cooperate with representatives of the Dominion of Canada in a study regarding the construction of a highway to connect the northwestern part of the United States with British Columbia, Yukon Territory, and Alaska, with a view to ascertaining whether such a highway is feasible and economically practicable. Upon completion of such study the results shall be reported to Congress.

SEC. 2. The sum of \$10,000 is hereby authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, for the purposes of carrying out the provisions of this Act.

The president of the board was appointed by the President, July 28, 1930, as a special commissioner for the purpose designated in the foregoing act.

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

Location and description.—The work thus far accomplished includes the construction of 1,664¾ miles of wagon road, 87 miles of tramroad, 1,399¼ miles of sled road, 7,326 miles of permanent trail, and 712 miles of temporary, flagged trail, a total of 11,189 miles.

The Territory has an area of 590,880 square miles, which is more than twelve times the size of the State of New York, or practically one-fifth the size of the United States proper. At its southern

point it is 700 miles from the northwest point of the State of Washington by the usually traveled route. Thence the southeastern Alaska Archipelago and a strip of mainland lying west of the Canadian boundary extend northwesterly for about 520 miles to the major portion of the Territory, which lies west of the one hundred and forty-first meridian and has a dimension of approximately 900 miles north and south and 700 miles east and west, with the Alaska Peninsula and Aleutian Islands reaching out from the southwestern portion nearly 2,500 miles toward Siberia.

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

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

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

Original condition.—Prior to the organization of the Board of Road Commissioners for Alaska there were in the whole of the Territory less than a dozen miles of what might be called wagon road, with a few hundred miles of pioneer trail, mostly constructed by expeditions under the War Department. Travel was largely confined to the open waterways in summer and to their frozen courses overland in winter. When mining machinery and other supplies were to be transported from the coast or river landing they were in most cases hauled over the snow during the winter, with some preliminary clearing of the route when necessary. Travel across country in summer, generally speaking, was possible only on foot or with pack horses. It was difficult always, and frequently dangerous, on account of the numerous swift and deep streams, fed by the ice-cold and silt-laden waters of mountain glaciers.

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

Existing project.—A new program of operations, prepared by the board of road commissioners in cooperation with the Governor of Alaska, the Territorial Road Commission, and other interested Federal and Territorial officials, was submitted in the annual report of the board for 1920. It proposes 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 existing road and trail system (estimated

cost for the 10-year period, \$2,000,000). Total estimated cost, \$10,000,000.

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

- (a) For maintenance and improvement of existing routes to the same standard throughout, 9,736 miles, at \$870,000 per year-- \$4,350,000
- (b) For completion of projects already undertaken----- 1,735,000
- (c) For completion of projects already approved but not yet undertaken----- 1,780,000
- (d) For completion of projects likely to arise with development during the 5 years----- 1,135,000

Total for 5 years----- 9,000,000

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

PROGRAM FOR 1924

Fiscal year	Working season	(a) Maintenance existing routes	(b) Completion, approved projects already under way	(c) Construction, approved projects not yet under way	(d) Construction, new projects likely to develop	Total estimated	Amount actually appropriated
1927-----	1926	\$950,000	\$510,000	\$290,000		\$1,750,000	\$900,000
1928-----	1927	850,000	475,000	675,000	\$100,000	2,000,000	1,000,000
1929-----	1928	850,000	400,000	550,000	200,000	2,000,000	825,000
1930-----	1929	850,000	250,000	300,000	350,000	1,750,000	800,000
1931-----	1930	850,000	100,000	65,000	485,000	1,500,000	800,000
1932-----	1931						800,000
Total-----		4,350,000	1,735,000	1,780,000	1,135,000	9,000,000	5,125,000

A new 10-year program to continue the work beginning with fiscal year 1932 has been submitted. It provides for maintenance and improvement of the existing system and for needed new construction to keep pace with the development of the territory.

The appropriations recommended for each year of this 10-year period are as follows:

PROGRAM FOR 1929

Fiscal year	Working season	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	954,000	900,000	1,854,000	130,000	100,000	230,000	1,624,000
1940-----	1939	978,000	600,000	1,578,000	130,000	100,000	230,000	1,348,000
1941-----	1940	995,000	400,000	1,395,000	130,000	100,000	230,000	1,165,000
Total-----		9,047,000	7,500,000	16,547,000	1,300,000	1,000,000	2,300,000	14,247,000

For latest published maps see map following page 89, Part II, of the Annual Report of the Alaska Road Commission, fiscal year 1930, and also a wall map of Alaska published by the board of road commissioners, 1923.

Recommended modifications of project.—None.

References to published articles not previously reported.—None.

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

During the fiscal year the board has expended directly \$10,422.16 for shelter cabins, \$95,758.41 for roads, \$25,219.45 for aviation fields, \$7,733.88 for the Valdez Dike, \$220 for marking Gastineau Channel Bar, Yukon-Kuskokwim Portage \$500, and \$5,452.64 for telephone lines from funds contributed by the Territory, and \$20,298.32 contributed by others.

For the working season of 1931 the Territorial board has allotted to the Department of Agriculture \$10,000 and to the Federal board the following amounts:

Cooperative road projects.....	\$77,350
Territorial road projects.....	18,300
Shelter cabins.....	3,650
Aviation fields.....	12,450
Telephone lines.....	3,100
Nome Harbor.....	2,500
Valdez Dike.....	15,000
Iditarod River.....	5,000
Total.....	137,350

These funds are held subject to the call of the Federal board.

Cooperation with the Territory has been continued in connection with the purchase, rehabilitation, and operations of two tramroads, one extending from Nome to Shelton on the Seward Peninsula, a distance of about 74 miles, and the other situated in the Tolovana district, about 50 miles northwesterly from Fairbanks and extending from the town of Brooks about 13 miles southerly to the head of navigation on the Tolovana River.

The Nome-Shelton tramroad was purchased on October 3, 1922, for \$24,014. During the fiscal year \$11,671.40 was spent on its maintenance.

The Tolovana tramroad was purchased on June 11, 1924, for \$6,425. During the fiscal year \$6,314.23 was spent on its rehabilitation and maintenance.

During the year the board assumed responsibility for the construction and maintenance of 36 aviation fields and the repair and maintenance of 736 miles of telephone lines for the Territory.

The general road and trail system of the board ties into the Alaska Railroad, operated by the Secretary of the Interior, at 27 different stations. These highway and trail feeders to the Government railroad are an important factor in increasing business for the railroad, and thereby reducing its present operating deficit.

Since April 1, 1922, the board, under an agreement with the Secretary of the Interior, has handled road and trail work in the Territory for the National Park Service, including the construction and

maintenance of the Mount McKinley National Park Highway, authorized by the act of Congress approved April 9, 1924.

Consolidation of road work under the board.—From the foregoing it will be noted that all road and trail work in the Territory of Alaska, including work supported by appropriations of the Territory, of the War Department, and of the Department of the Interior, but excluding the former projects of the board in the national forests now supported by appropriations of the Department of Agriculture, is consolidated under the direction of the board.

Effect of improvement.—The roads and trails constructed by the board have not only opened up to development nearly all sections of the Territory but have effected large savings in freight charges. The major portion of this freight would not have been transported without the roads, and the indirect loss that would have been occasioned by the restriction on output and development if the roads did not exist can not be estimated.

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

Operations and results during fiscal year.—The work in the last fiscal year was largely directed to maintaining the existing system and the improvement of the more important routes for the use of motor vehicles. New construction was confined to a few major projects upon which work has been in progress for several years.

The work accomplished during the fiscal year may be summarized as follows:

New construction: 52 miles road, $4\frac{1}{2}$ miles sled road, 138 miles trail, 6 airplane landing fields, and 19 shelter cabins.

Improvement: $55\frac{1}{4}$ miles road reconstructed, $86\frac{1}{2}$ miles road surfaced, and numerous small bridges and culverts rebuilt.

Maintenance: $1,387\frac{1}{2}$ miles road, 87 miles tramway, $789\frac{1}{2}$ miles sled road, $4,343\frac{3}{4}$ miles permanent trail, 329 miles temporary flagged trail, 736 miles telephone lines, 30 airplane landing fields, and 47 shelter cabins.

Total for all classes of work: 7,273 miles, consisting of $1,581\frac{1}{4}$ miles of road, 87 miles tramway, 794 miles sled road, $4,481\frac{1}{4}$ miles of permanent trail, and 329 miles temporary flagged trail.

The more important roads upon which new construction was performed were the McCarthy-Nizina, Mount McKinley National Park, Gulkana-Chisana, Long-Poorman, Kasilof, Iliamna, Circle Hot Springs, Nome-Council, and Lucky Shot Mine-St. Peters. The bridge renewal program was continued.

The important Richardson Highway was maintained open during the entire season. Improvement to new standard was continued and except for a few short sections this road is now in excellent condition for auto traffic. During the 1931 season tourist travel began in June.

Surfacing of the Steese Highway was continued. As a result of the improvement traffic over this route continued to increase. During the 1931 season travel began over this route in June.

Construction of the road from Gulkana on the Richardson Highway to Chisana through the mineralized belt north of the Wrangell Mountains was continued. This is now the major new project under construction.

Work was started early in 1930, but an unusual amount of precipitation during the summer greatly retarded the progress of the work.

The cost during the year was \$907,576.62, of which \$343,916.44 was for new work and \$563,660.18 was for maintenance and improvement. Total expenditures during the fiscal year were \$1,288,273.46.

Condition at end of fiscal year.—The work of maintenance and improvement during the fiscal year provided additional mileage with a light surface. New mileage opened requires additional improvement and surfacing, and increased traffic in certain sections requires heavier surfacing.

The total cost to the end of the fiscal year is \$16,893,097.78, of which \$8,949,422.76 was for new work and \$7,943,675.02 for maintenance and improvement.

Total expenditures to date are \$17,273,794.62, of which \$15,654,977.23 was from United States funds and \$1,618,817.39 from contributed funds.

Proposed operations.—Eight hundred thousand dollars was provided by the act of February 23, 1931. These funds will be expended on maintenance and improvement of the existing system and will provide for some new work. Surfacing will be continued on the Fairbanks-Circle Road and the construction of new mileage will be accomplished on the Gulkana-Chisana, the Fairbanks-Livengood, and the Willow Station-Lucky Shot Mine Roads. Unless much greater annual appropriations are made, little of the much needed new mileage can be constructed and but little can be done to meet the pressing need for extensions and improvements to the system. A reconnaissance will be made to obtain data on the most feasible route for the Alaskan portion of the Pacific Yukon International Highway.

Amount which can be profitably expended during the fiscal year ending June 30, 1933.—An appropriation of \$1,241,000 in accordance with the 1929 program, could be profitably expended on the work during the fiscal year 1933. This sum will provide for reasonable maintenance and improvement of the existing system and for construction of much needed mileage on adopted projects and on new projects necessary for the development of the territory.

These funds will be distributed as follows:

District	Maintenance and improvement of existing projects						
	Mileage existing system			(a) Estimated cost	Average per mile		
	Roads	Sled roads	Trails		Roads	Sled roads	Trails
Southeastern.....	65½		23	\$20,000	\$300		\$15
Bethel.....		26	985	8,660		\$30	8
Eagle.....	28	177½	388	14,070	300	20	7
Valdez.....	106½			57,900	550		
Chitina.....	282		507	143,500	500		5
Fairbanks.....	642	880	1,160	218,540	300	20	7
Southwestern.....	1 214½	189	509½	1 71,770	300	20	7
Kuskokwim.....	86½	82½	1,147½	33,510	300	20	5
Nome.....	282	48	3,318	88,050	250	20	5
Total.....	1,704½	1,402½	8,038	656,000	340	21	6

¹ Does not include Mount McKinley National Park road, 46½ miles, supported by the National Park Service.

² Includes 712 miles temporary trails.

District	New construction				Grand total of estimates (a), (b), (c) and (d)
	(b) Approved projects already under way	(c) Approved projects not yet started	(d) New projects likely to develop	Total (b), (c) and (d)	
Southeastern.....					\$20,000
Betbel.....					8,660
Eagle.....					14,070
Valdez.....					57,900
Chitina.....	\$200,000			\$200,000	243,500
Fairbanks.....	50,000		\$250,000	300,000	518,540
Southwestern.....	85,000			85,000	155,770
Kuskokwim.....					33,510
Nome.....					88,050
Total.....	335,000		250,000	585,000	1,241,000

Total commerce of Alaska for the calendar year 1930:

Commercial statistics

IMPORTS

Merchandise from the United States.....	\$31,303,291
Merchandise from foreign ports.....	1,709,636
Silver and gold from foreign ports.....	32,340
Total imports.....	33,045,267

EXPORTS

Merchandise to the United States.....	48,996,962
Merchandise, gold, and silver to foreign ports.....	347,691
Domestic gold and silver to the United States.....	7,812,043
Foreign gold and silver to the United States.....	30,450
Total exports.....	57,187,146

Grand total, exports and imports..... 90,232,413

Exports declined \$14,875,527, or 21 per cent, from the corresponding figure for 1929. This decrease is due entirely to decreased exports of canned salmon, copper ore, and raw furs.

Imports decreased \$1,610,456, or 5 per cent, from the corresponding figure for 1929.

The value of Alaska's mineral output in 1930 was \$13,602,000, as compared with \$16,066,000 in 1929.

Minerals were produced in the following order of value: Gold, copper, coal, silver, lead marble, platinum, petroleum, and tin.

Production of gold again exceeded in value that of copper. The production of copper decreased both in quantity and in value. While the decrease in quantity is 14 per cent, the decrease in value is 39 per cent, compared with that for 1929. Gold production exceeded that of the previous year \$633,000, or 8 per cent. This increase was due to increased production by large dredges from interior placer deposits.

There are still large areas in Alaska not adequately prospected, and many promising properties are lying idle because of lack of capital for the necessary equipment. The shortage of enterprising prospectors is a serious drawback that has resulted because wages

for comparable work are actually lower in Alaska than in the States, though expenses are higher. As a consequence Alaska does not attract or hold the class of prospectors it formerly did.

The production of coal showed a slight increase in 1930 compared to that of the preceding year. The output was furnished mainly by the Evans Jones and Alaska-Matanuska mines in the Matanuska region and the Suntrana mine in the Healy River field.

In 1930, as in the past, all the petroleum produced in Alaska was obtained from the Katalla field. The gasoline and distillate produced by the refinery were sold in the local market.

Canned salmon exported in 1930 showed a decrease of over 5 per cent in quantity and a decrease of 22 per cent in value compared to the preceding year.

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

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

Since 1921 the board has supervised or directed the construction of various public works for the Territory.

By informal arrangement, effective April 1, 1922, the president of the board has agreed to act for the National Park Service, Department of the Interior, on certain matters relating to the improvement of the Sitka National Monument and the development of Mount McKinley National Park. Expenditures, \$168,488.22.

At the request of the Quartermaster General of the Army, the board has agreed to assume charge of the administration of the Sitka National Cemetery, created by Executive order of June 12, 1924. Expenditures, \$937.47.

By direction of the Secretary of War the board has undertaken the regulation of Lowell Creek, Alaska, for the protection of Government property adjacent thereto, as provided in act of Congress approved March 23, 1928. Expenditures, \$8,265.02.

By authority of the Chief of Engineers the board has undertaken the supervision of the construction work and operations of licensee, including stream gaging, connected with the power development on Eklutna River, Alaska.

At the request of the commanding general, Ninth Corps Area, the board has undertaken the supervision of the construction of a water-supply system for Chilkoot Barracks, Alaska.

The president of the board was designated by the President as a special commissioner for the study of a highway to connect the northwestern part of the United States with British Columbia, Yukon Territory, and Alaska.

Financial summary

Amount expended on all projects:	
From Federal funds (includes receipts from sales, etc., to June 30, 1929) to June 30, 1930.....	\$14,532,308.63
Net expenditures, 1931.....	1,122,668.60
	<u>\$15,654,977.23</u>
From contributed funds (includes receipts from sales, etc., to June 30, 1929) to June 30, 1930.....	1,453,212.53
Net expenditures, 1931.....	165,604.86
	<u>1,618,817.39</u>
	<u>17,273,794.62</u>
Cost of new work.....	8,949,422.76
Cost of maintenance and improvement.....	7,943,675.02
Value plant, materials, etc., on hand.....	380,696.84
Total expended.....	<u>17,273,794.62</u>
Balance unexpended.....	<u>789,115.08</u>
Grand total to be accounted for.....	<u>18,062,909.70</u>

Appropriations to June 30, 1931:	
Construction and maintenance of military and post roads, bridges, and trails, Alaska.....	11,750,600.00
Wagon roads, bridges, and trails, Alaska fund.....	3,051,714.36
Construction of wharf at Juneau.....	22,500.00
Flood control of Lowell Creek.....	100,000.00
Flood control of Lowell Creek (contributions).....	25,000.00
Increase of compensation, War Department.....	95,059.50
National cemeteries.....	5,638.72
Roads and trails, national parks.....	647,876.37
Contributed funds (by Territory of Alaska and others).....	1,600,483.51
Adjustments to June 30, 1929 (reimbursements, refunds, sales, etc.).....	164,037.24
Total.....	<u>18,062,909.70</u>

Fiscal year ending June 30	1927	1928	1929	1930	1931
Cost of new work ¹	\$706,792.46	\$430,923.16	\$630,546.95	\$515,093.39	\$343,916.44
Cost of maintenance and improvement.....	510,374.43	822,745.02	816,616.96	741,256.26	663,660.18
Total expended (net).....	1,217,166.89	1,253,668.18	1,447,163.91	1,256,349.65	1,007,576.62
Appropriated by War Department acts.....	1,022,500.00	825,000.00	800,000.00	800,000.00	800,000.00
Allotted from Alaska fund.....	142,905.28	73,653.64	150,432.68	216,757.86	54,843.66
Contributed by Territory of Alaska and others.....	93,772.39	210,852.74	213,412.77	188,449.87	167,872.69
Flood control of Lowell Creek (contributions).....		25,000.00			
National cemeteries.....	800.00	792.83	1,000.00	1,646.00	797.72
Roads and trails, national parks.....	16,000.00	60,000.00	65,000.00	220,000.00	156,876.37
Total.....	1,275,977.67	1,295,299.21	1,229,845.45	1,426,853.73	1,180,390.44

¹ For 1927 the figures shown include certain improvements classed as "New work" which for subsequent years are included under "Maintenance and improvement."

² Of this amount, \$380,696.84 represents the cost of supplies, materials, and equipment unissued.

July 1, 1930, available balance.....	\$896,998.10
Amount appropriated by War Department, act approved Feb. 23, 1931.....	800,000.00
Amount accrued to Alaska fund during fiscal year 1931.....	54,843.66
Amount contributed by Territory of Alaska and others.....	167,872.69

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National cemeteries, 1931.....	\$800. 00
Roads and trails, national parks, 1931-32.....	156, 876. 37
Total.....	2, 077, 390. 82
Deduct "National cemeteries, 1930," revoked.....	2. 28
Total resources.....	2, 077, 388. 54
Net amount expended during fiscal year.....	1, 288, 273. 46
July 1, 1931, balance unexpended.....	789, 115. 08
July 1, 1931, outstanding liabilities.....	255, 819. 41
July 1, 1931, balance unobligated.....	533, 295. 67
Amounts available on June 30, 1931:	
From War Department, act approved Feb. 23, 1931.....	710, 036. 34
From War Department, act approved Mar. 23, 1928, for flood control, Lowell Creek, Alaska.....	1, 118. 92
From Alaska fund.....	12, 478. 03
From funds contributed.....	17, 237. 55
From national cemeteries.....	6. 45
From roads and trails, national parks.....	1 48, 237. 79
Amount available for fiscal year ending June 30, 1932....	789, 115. 08
Amount (estimated) required to be appropriated for completion of existing projects.....	3, 875, 000. 00
Amount that can be profitably expended in fiscal year ending June 30, 1933:	
New construction.....	585, 000. 00
Maintenance and improvement.....	656, 000. 00
Total.....	1, 241, 000. 00

Appropriations

I. Construction and maintenance of military and post roads, bridges, and trails, Alaska:

Total amount appropriated to June 30, 1920,
(see detailed statement on p. 2105, Annual
Report of the Chief of Engineers, 1920) - \$3, 370, 000. 00

Act of—

June 30, 1906.....	1 35, 000. 00
June 30, 1921.....	425, 000. 00
June 30, 1922.....	465, 000. 00
Mar. 2, 1923.....	1 650, 600. 00
June 7, 1924.....	725, 000. 00
Dec. 6, 1924.....	1 55, 000. 00
Feb. 12, 1925.....	900, 000. 00
Apr. 15, 1926.....	900, 000. 00
Feb. 23, 1927.....	1 1, 022, 500. 00
Mar. 23, 1928.....	825, 000. 00
Mar. 23, 1928, flood control, Lowell Creek.....	100, 000. 00
Feb. 28, 1929.....	800, 000. 00
May 28, 1930.....	800, 000. 00
Feb. 23, 1931.....	800, 000. 00
Total.....	\$11, 873, 100. 00

1 Exclusive of available funds.
 2 For Fairbanks-Council survey.
 3 Includes \$600 for survey of Juneau Wharf.
 4 Deficiency to cover increase of compensation, 1925.
 5 Includes \$22,500 for Juneau Wharf.

2. Construction and maintenance of wagon roads, bridges, and trails, Alaska fund, act of Congress approved Jan. 27, 1906, as amended by an act approved May 14, 1906:		
Total receipts to June 30, 1920 (see detailed statement on p. 2106, Annual Report of the Chief of Engineers, 1920)-----		\$2, 128, 569. 89
Fiscal year—		
1920 (supplementary)-----	153, 805. 19	
1921-----	98, 437. 82	
1922-----	135, 975. 05	
1923-----	119, 227. 10	
1924-----	115, 803. 20	
1925-----	123, 871. 33	
1926-----	137, 431. 66	
1927-----	142, 905. 28	
1928-----	73, 653. 64	
1929-----	150, 432. 68	
1930-----	216, 757. 86	
1931-----	54, 843. 66	
Total -----		\$3, 651, 714. 36
3. Increase of compensation, War Department:		
Fiscal year—		
1918-----	145. 20	
1919-----		
1920-----		
1921-----	940. 00	
1922-----	4, 322. 09	
1923-----	32, 846. 67	
1924-----	58, 805. 54	
Total -----		95, 059. 50
4. National cemeteries:		
Fiscal year—		
1925-----	802. 17	
1926-----	300. 00	
1927-----	800. 00	
1928-----	792. 83	
1929-----	1, 176. 00	
1930-----	1, 487. 72	
1931-----	800. 00	
Total -----		5, 638. 72
5. Roads and trails, national parks:		
Act of—		
Mar. 3, 1925-----	80, 000. 00	
May 10, 1926-----	50, 000. 00	
Jan. 12, 1927-----	16, 000. 00	
Mar. 4, 1928-----	60, 000. 00	
Mar. 4, 1929-----	65, 000. 00	
May 14, 1930-----	220, 000. 00	
Feb. 14, 1931-----	156, 876. 37	
Total -----		647, 876. 37
Total Federal appropriations -----		16, 273, 388. 95

Contributed funds

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

1. By the Territory of Alaska:

Fiscal year—		
1920	-----	\$115,517.94
1921	-----	118,748.61
1922	-----	54,737.28
1923	-----	112,012.88
1924	-----	106,325.35
1925	-----	78,978.45
1926	-----	133,499.10
1927	-----	88,015.76
1928	-----	191,363.59
1929	-----	189,982.45
1930	-----	170,480.64
1931	-----	149,108.37
Total	-----	\$1,503,768.42

2. By others:

Fiscal year—		
1922	-----	1,683.77
1923	-----	1,379.54
1924	-----	4,540.00
1925	-----	883.12
1926	-----	2,819.01
1927	-----	5,758.63
1928	-----	19,489.15
1929	-----	23,430.32
1930	-----	17,969.23
1931	-----	18,764.32

Total	-----	96,715.09
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3. Funds contributed for the control of Lowell Creek, Alaska----

25,000.00

Total contributed funds	-----	1,625,483.51
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Grand total, all funds	-----	17,898,872.46
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