

# UNITED STATES DEPARTMENT OF THE INTERIOR

ALASKA ROAD COMMISSION

JUNEAU, ALASKA
NOME

February 1, 1952

Mr. Wm. J. Niemi Chief Engineer Alaska Road Commission Juneau, Alaska

Subject: Annual Report, Year 1951.

Dear Sir:

The following is the Annual Report applicable to the Nome District for the Year 1951.

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Very truly yours

John M. Cooley, District Engineer

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1. Route 040

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Trail Flagging

W.O. 49

About 200 miles

Winter trails were flagged in the outlying areas for the fishing and hunting endeavors of various villages and are as follows:

| LOCATION  | DISTANCE    |
|---|-------------|
| A. Teller B. Golovin C. Kotzebue D. St. Michael E. Cape Nome F. Deering | 37 miles 18 |

2. Route 041

Nome-Council

W.O. 41

78 miles

Spring snow removal was performed from Nome to Cape Nome a distance of 14 miles, to allow early access to the ACS and CAA transmitter sites.

During the work season 23rd of April to 26th of October, general spring and summer maintenance work was carried on.

The two ferries, Safety and Solomon, were repaired and put in service for the public, 10 June to 26 October and 12 June to 26 October respectively.

At the beginning of the season it was necessary to repair the fall storm damage at the East approach to Nome River Bridge and the  $17\frac{1}{2}$  mile section.

During the season up to the 28th of July, the section at  $17\frac{1}{2}$  mile was repaired three times, once from the fall storm and twice from storms on the 3rd and 4th of July and 16th and 28th of July. The damage from the fall storm and the first July storm on this section was repaired by a dozer pushing up a grade from the beach sand and giving it a light dirt surface which did not stand up under the next storm. The third storm damage was repaired by hauling the rocky material from the Cape Nome Road which widened a section of the Cape and turned out to be excellent fill material for  $17\frac{1}{2}$  mile. After this section was repaired with the heavy material, I believe we had stronger storms but they did not affect the heavy fill material. It is planned next season to straighten and build this section higher and widen the Cape Nome Road which is slowly getting very narrow.

The narrow bridge at Golden Gate Creek, mile 12.5, was removed and replaced with an elephant hut.

During the early part of the season, latter part of June, the local gravel crew spent two weeks at Solomon hauling river gravel from the Solomon River across the Solomon Ferry onto the stretch of road between the two ferries. They were able to gravel a stretch about six miles with a surface coat of

gravel heavy enough to stand up under their hauling. This has greatly improved the road. It now requires about 25 minutes to drive between the Safety and Solomon ferries where as before it had taken an hour or more to drive.

The Nome River Bridge was given a coat of paint but due to the great amount of rain it took the paint crew over a month to complete the job.

## 3. Route 042 Nome-Bessie W.O. 42 3.2 miles

This route required, during the winter maintenance season, 52 miles of snow removal.

During the summer maintenance season, general maintenance was performed as required.

The bridge across Dry Creek, mile 0.5, was removed and replaced by an elephant hut.

## 4. Route 043 Seward Peninsula Railroad W.O. 43 80.2 miles

The work season for the Seward Peninsula Railroad began on the 8th of June and closed on the 2nd of October.

On the 15th of July, the railroad was opened to mile 47 for the public.

On the 1st of August the railroad was opened to Bunker Hill for the public.

During the work season the railroad was given general track and bridge maintenance. The approaches to Iron Creek were washed out by the spring runoff and required the hiring of a D-4 to repair the damage as the only small cat we have is a TD-14 which was too heavy to be hauled over the railroad.

The work accomplished consisted of repair to 18 trestles, repairing, leveling, and raising 8,540 feet of track, replacing 2,666 ties, and constructing a new 60 foot siding at mile 21. In the leveling of the track approximately 52,500 board feet of lumber, secured from Point Specer, was used.

As far as can be ascertained, it is doubtful if over 30 tons of freight was moved over this route by local miners during the season.

## 5. Route 040.2 Deering-Inmachuk W.O. 47 25 miles

The work season for this route was from the 26th of July to the 24th of September.

Before the season work began on this route a portable gravel loading ramp was built in the shop and shipped to Deering.

During the season general maintenance work was done on the route.

2.800 yards of gravel was put on the road and 5 new culverts installed.

## 6. Route 040.3 Teller-Bluestone W.O. 48

15.5 miles

The work season for this route was from the 1st of June to the 4th of August.

General maintenance work was done on this route with the greater part being done on the section between 14 mile and 15.5 mile. At the end of the season the road was in fairly good condition to mile 15.5

## 7. Route 041.1 Nome-Council Locals W.O. 44 35 miles

This route includes the Council-Orphir Creek (12.0 miles), Casa De Paga Road (20.0 miles) and Shovel Creek Road (5.0 miles). These roads were not used this season and therefore no maintenance work was done on them.

## 8. Route 042.1 & 042.2 Nome Locals

W.O. 45

53.5 miles

A. Route 042.11 Nome Wireless 0.2 miles

This route was graded once during the season.

B. Route 042.12 Bessie-Snake River 20.8 miles

This route required 8 miles of snow removal which was done at the beginning of the work season.

During the season general maintenance was carried out on this route. Between 16 and 19 mile, about 1,000 yards of gravel was used for resurfacing, also about 1,500 yards between 20 and 21 mile and one new 48 in. by 96 in. culvert was installed at 16 mile.

C. Route 042.13 Snake River-Monument 3.0 miles

This route was not maintained at all during the season.

D. Route 042.14 Bessie-Sunset Creek 12.0 miles

Snow removal on this route amounted to 9 miles. In the spring before the breakup it was necessary to open the road as far as the Sunset Bridge across the Snake River, 6 mile, so that in case of an ice jam, it could be cleared before it took the bridge out.

During the season only grader maintenance was performed on this route.

E. Route 042.15 Bessie-Osborne 10.2 miles

Snow removal in the spring consisted of 6 miles.

It was necessary at the beginning of the season to change the beginning section of the road due to the dredging operations for the first two miles. This was done by the use of a dozer and going up the Creek bottom.

During the season only grader maintenance was performed on this route.

F. Route 042.16 Bessie-Buster 8.3 miles

Snow removal in the spring consisted of 4 miles. During the summer only grader maintenance was carried on.

In the fall we cooperated with the USSR Mining Company in changing the section of road around the dredging area, as they were getting close to the road and made it dangerous to the public. This change on our part required the use of one D-8 dozer about three days.

G. Route 042.21 Spruce Creek 1.5 miles

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This route was not maintained at all during the season.

H. Route 042.22 Center Creek Road 2.8 miles

Snow removal on this route during the year total 123 miles.

During the season when the weather was bad and we were unable to work on other routes the low spots on this route were raised. About 2,875 yards of gravel were used. During the year general maintenance was performed.

I. Route 042.23 Little Creek Road 2.2 miles

Only grader maintenance was done on this route during the season.

J. Route 042.24 Submarine Paystreak 3.0 miles

This route is now on the air base and is maintained by the Army.

Total snow removal for above: 150 miles.

W.O. 46

40.5 miles

The camp on this route was open on the 17th of May and closed on the 22nd of September.

Good ! During the first part of the season the road was completed into Taylor and was in fairly good condition thruout. The remainder of the season was spent on improving the poor sections of the road.

The following items were done during the season:

15,725 yards of gravel hauled.

- 48 Barrel culverts installed.
- 2 13" X 18" X 21' culverts installed.
- 2 24" round X 18
- 1 24" round X 20

This route is now in fairly good condition and will only require a small maintenance crew this coming season.

#### 10. Route 040.1 Candle-Candle Creek

W.O. None

7.3 miles

Road maintenance done on this route was by Havenstrite Mining Company with funds and authorization received directly from the Territorial Highway Engineer's office at Juneau.

#### 11. Route 041 Nome-Council Reconstruction W.O. 410

The work on reconstruction was started on the 7th of July and was forced to close down on the 20th of August due to the excess amount of rain during the latter part of the season. With no outlook for better weather, the job was closed down early.

During the time the crew was able to work, they did very well. A section of 21,150 feet was relocated onto the hillside out of the creek bottom and 9,250 feet of this section was surfaced.

#### 12. Route 401 Nome Depot

During the year the machine shop was completed, a well drilled and a pump installed for fire protection with fire fighting equipment in building 405. The building 406 was made over for a paint shop and warm storage. A portion of building 418 was remodeled into an apartment house. The building 415 was repaired and fixed for bachelor quarters for key personnel and the watchman. Storage for the railway equipment was begun but only half completed.

## Summary of Major Work

## Route 041

7112 9.876 yards of gravel.

Six miles of road resurfaced between Solomon and Safety Ferries.

291 1 elephant hut installed at mile 12.5, Golden Gate Greek.

## Route 041 Reconstruction

7112 3,764 yards of gravel. 21,150 feet of new road location.

## Route 042

291 1 elephant hut installed at mile 0.5 Dry Creek.

## Route 040.2

7112 2,800 yards of gravel.

## Route 042.12

7112 2,500 yards of gravel.

## Route 040.22

7112 2,875 yards of gravel.

## Route 040.3

7112 908 yards of gravel.

## Route 043.1

7112 15,725 yards of gravel.

Total Gravel: 38,448 yards.





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Secretary Secretary

# UNITED STATES DEPARTMENT OF THE INTERIOR

## ALASKA ROAD COMMISSION

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NOME

Mr. Wm. J. Niemi Chief Engineer Alaska Road Commission Juneau, Alaska

Subject: Annual Report, Year 1953

Dear Sir:

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| 1.  | 040              | Trail Flagging            | 49         | 1    |
| 2.  | 041              | Nome-Council              | 41         | 1-2  |
| 3•  | 042              | Nome-Kougarok             | 42         | 2-3  |
| 4.  | 043              | Seward Peninsula Railroad | 43         | 3-4  |
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| 7•  | 043.1            | Bunker Hill-Kougarok      | 46         | 5    |
| 8.  | 040.2            | Deering-Inmachuk          | 47         | 5-6  |
| 9.  | 040.3            | Teller-Bluestone          | 48         | 6    |
| 10. | 040.1            | Candle-Candle Creek       | None       | 6    |
| 11. | 040.3            | Lost River Road           | 414        | 6    |
| 12. |                  | Haycock Bridges           | 423        | 6-7  |
| 13. | 042              | Nome-Kougarok Extension   | 424        | 7 •  |
| 14. |                  | Big Hurrah Road           | 425        | 7    |

15 December 1953

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| 16.     | Minnehaha Creek & Virginia Creek Bridges | 427 | 8 |
|---------|--|-----|---|
| 17.     | Rock Haul for the Corps of Engineers     | 428 | 8 |
| 18.     | Lost River Airfield                      | 429 | 8 |
| 19. 401 | Nome                                     |     | 8 |
| 20.     | Summary of Major Work                    |     | 9 |

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Very truly yours,

John M. Cooley District Engineer 1. Route 040

Trail Flagging

W.O. 49

About 200 miles

During the winter, trails were flagged in the outlying areas for the fishing, hunting, and travel endeavors of various villages and are as follows:

| Loc | Cation                  | Dist:              | nce            |
|-----|-------------------------|--------------------|----------------|
| в.  | Teller<br>Golovin       | 37<br>18           | miles<br>miles |
| _   | Kotzebue<br>St. Michael | 34<br>5            | miles<br>miles |
|     | Cape Nome Deering       | 1.5<br>14          | miles<br>miles |
| G.  | Mary's Igloo District   | $\frac{33}{142.5}$ | miles<br>miles |

#### 2. Route 041

Nome-Council

W.O. 41

77.1 miles

Spring snow removal was performed from Nome to Cape Nome, a distance of 14 miles, to allow early access to the ACS and CAA transmitter sites. The snow removal was done on a cooperative basis with the Civil Aeronautics Administration furnishing a snogo and the ARC a D-8 dozer. Together the operation required six working days.

The two ferries, Safety and Solomon, were repaired and put into service for the public 28 May to 21 October. The Safety Ferry was equipped with a gasoline power unit to power the ferry back and forth. This power unit replaced the use of the power boat to push the ferry. This improvement made it possible to use the ferry in rougher water and lessened the travel time of crossing Safety Lagoon.

The ferries were operated part of the season on a five day per week basis and part on a six day basis.

It is interesting to see how the traffic has increased from improving the spit road and ferries. The following is the season traffic census for the past three years:

| Year 1951 |             | 1287 people | 431 | vehicles |
|-----------|-------------|-------------|-----|----------|
| Year 1952 |             | 1447 people | 536 | vehicles |
| Year 1953 | (29 June to |             |     |          |
|           | 18 Oct.)    | 3318 people | 960 | vehicles |

The gravel crew spent approximately five weeks hauling 4030 cubic yards of gravel from the Solomon River across the Solomon Ferry to complete the graveling of the spit road between Safety and Solomon ( $11\frac{1}{2}$  miles).

The section of road from  $17\frac{1}{2}$  mile to Safety Ferry was straightened for approximately  $3\frac{1}{4}$  miles in length. In the straightening of this section, 6460 cubic yards of material was hauled.

The widening of Cape Nome is approximately 85 percent complete. A section of 0.65 miles was widened by the use of the 22B (3/4 yard) shovel. Some of the material was hauled on the section of road between  $17\frac{1}{2}$  mile and Safety, and 952 yards were hauled to the Corps of Engineers at Nome. The other was pushed over the bank (approximately 6000 yards).

The sharp curve and grade on the East end of Hasting Creek crossing was taken out. The change was made by the use of a D-8 dozer and carryall. 1320 cubic yards of material was hauled onto the road with the carryall and approximately 1500 yards pushed up by the dozer.

One large three foot culvert was installed in the Hasting Creek fill to take care of the early spring run-off before the thawing crew arrives.

The road was maintained by grader as required between Nome and Lee's Camo, mile 43. The remainder of the road to Council was graded once during the season.

All culverts were repaired and cleaned at the end of the season.

#### Summary of material moved on the route

| Trucks   | 11,060 | cubic | yards |
|----------|--------|-------|-------|
| Carryall | 1,320  | 11    | 11    |
| Dozer    | 1,500  | 11    | 11    |
| Shovel   | 6,000  | ti    | #     |
| Total    | 19,880 | cubic | yards |

### 3. Route 042

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W.O. 42

32.7 miles

#### A. Nome-Kougarok

14.0 miles

This route in the past was a combination of the Nome-Bessie, Bessie-Dexter and the road up Nome River from Dexter, and was officially changed in name last year at the beginning of the season.

The old bridge at Joe's Gulch (sometimes known as Dead Man's Curve) was replaced by a three foot culvert and the hair-pin curve reduced in curvature. This change involved an 800 ft line change and a large fill. This work was done by the use of one D-8 dozer and carryall. The road was surfaced by removing the gravel from the old road with the carryall and replacing it on the new section. Approximately 3000 yards of material was moved by the dozer to make the fill.

At Dexter Creek a large elephant hut was installed in the creek and a road change of about  $\frac{1}{4}$  mile was made. This change has made it possible to use the road for an additional month and a half in the fall after the freeze-up. This change was all done by one man with a D-8 dozer and carryall. Approximately 6500 yards of material was moved.

The three old narrow wooden bridges between 8 and 10 mile were replaced with four foot culverts and the fills were made with a dozer and carryall.

The road between 7.8 mile and 10.3 mile was graveled by the use of a TD18 and carryall. 4800 yards of gravel was hauled out of the Nome River and placed on this section of road.

The road was maintained by the grader as required. All culverts were repaired and cleaned at the end of the season.

## B. Route 042.11 Nome Wireless

0.2 miles

This route was graded once during the season.

## C. Route 042.15 Bessie-Osborne Road

10.2 miles

During the season only general grader maintenance was performed on this road.

## D. Route 042.16 Buster Road

8.3 miles

During the season 1150 yards of gravel was hauled with the TD18 and carryall from the Nome River and spread on the first mile of the road to where there is a mining operation.

#### Summary of work

Road changes 2100 feet

Material by dozer 4,500 yards
Material by carryall 10,950 yards
Total 15,450 yards

#### 4. Route 043

#### Seward Peninsula Railroad

W.O. 43

80.2 miles

During the season one inspection trip was made over the railroad and a sign was placed at the Iron Creek Bridge which read "All travel beyond this point is at your own risk". The road is in fair shape for the amount of use it is receiving. The only traffic was the USSR&M between Nome and Nugget Divide to take care of their ditch. Also, a few trips were made by fishermen to Salmon Lake. As far as can be ascertained, there was no freight hauled beyond Iron Creek this season.

I would like to recommend that the section of the railroad between the Alaska Road Commission Depot and the North side of Nome River Bridge be officially abandoned and not maintained any more. Also, I would recommend that the track be left intact from the Alaska Road Commission Depot to the turnaround at Banner Station (the USSR&M Ditch Camp) but not to be maintained. The section of track below Banner Station where the Nome-Kougarok road crosses to the North end of the Nome River Bridge should be abandoned and taken up. The only ones that will

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complain about this will be Grant Jackson, the local banker, and the "Q" Cab Co. During the Wien Tourist season the "Q" Cab Co. used the section of railroad between the Alaska Road Commission Depot and Banner Station turnaround to haul tourists and when the track needed a little repair they did it themselves.

At the closing part of the season, it was necessary to remove about 100 feet of track where the Nome-Kougarok road crossed the railroad below Banner Station and also about 400 feet on the Nome River bridge approaches. To change the railroad bridge to a highway bridge, it would be better to do away with the railroad crossing and construct a "Y" and a couple of sidings at Engstrom's place, which is about 2 miles north of the Nome River Bridge.

Next season by the time the railroad bridge is decked so that vehicles can use it and the approaches built up, we should have the two mile section of road to Engstrom's built up enough so that car travel can use it. Also, this should be completed before there will be any travel over the railroad.

| 5. | Route 041.1 | Nome-Council Loc    | <u>als</u> | W.O. 44 | Total 37 miles |
|----|-------------|---------------------|------------|---------|----------------|
|    | A. ,        | Council-Ophir Creek | 12.0       | miles   |                |
|    | В.          | Casa De Paga Road   | 20.0       | miles   |                |
|    | C.          | Shovel Creek        | 5.0        | miles   |                |

The above locals were not used this season by the local miners and therefore no work was done on them.

| 6. | Route 042.1 and 042.2 | Nome Local     | W.O. 45    | 42.3 miles |
|----|-----------------------|----------------|------------|------------|
|    | A. Route 042.12       | Bessie-Snake F | River Road | 20.8 miles |

A 64 foot width, 24 foot long, wooden bridge was constructed over Glacier Creek and about 2500 cubic yards of material was hauled and pushed up for the approaches by the use of the TD18 dozer and carryall.

A large culvert was installed at Rock Creek and a fill of about 600 yards of material was made by the use of the TD18 dozer.

The construction of the wooden bridge and the installation of the large culvert has made it possible to use the Snake River Road for about two months longer after the freeze-up until it is blocked by snow.

General grader maintenance was performed as required. All culverts were cleaned and repaired at the end of the season.

## B. Route 042.13 Snake-River-Monument

3.0 miles

This road was not maintained at all during the season.

## C. Route 042.14 Bessie-Sunset Road

12.0 miles

Snow removal was performed on this road to the bridge crossing the Snake River at six mile before the break-up in the spring so that the bridge would be accessible in case the ice in the river had to be cleared.

General grader maintenance was performed on the road and all culverts were repaired and cleaned.

## D. Route 042.22 Center Creek Road

2.7 miles

During the season this route was given general grader maintenance as required. Snow removal was performed as required on this road during the winter so as to travel back and forth from Nome to the Alaska Road Commission Depot.

## E. Route 042.23 Little Creek Road

0.8 miles

During the season only general grader maintenance was performed as required.

During the coming winter this road will be kept open so that the CAA and ACS will be able to drive to their receiver site which they have to visit at least twice each day.

## F. Route 042.24 Submarine Paystreak

3.0 miles

This road was not used this year so no maintenance was done. However, next season there will be mining carried on at the end of the road and there will have to be some repairs done to the road as it has not been maintained for the past few years.

## 7. Route 043.1 Bunker Hill-Kougerok W.O. 46

40.5 miles

Due to the reduction of the maintenance program this year all work planned for this route was given up and therefore no maintenance was done on the road.

Next season there will have to be some grader maintenance done or the road will go to pieces.

### B. Route 040.2

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Deering-Inmachuk

W.O. 47

25.0 miles

The work season for this route was from the 10th of June to the 25th of September.

During the work season general grader maintenance was performed as required. 4075 cubic yards of gravel was placed on the soft spots in the road and an additional turnout constructed for passing.

The entire road is now a very good one-way road with quite a few turnouts to handle the amount of traffic in the area. Next season this road should not require as much work to keep it in as good or better shape then it is now.

## 9. Route 040.3 Teller-Bluestone W.O. 48 15.5 miles

Due to the reduction of the maintenance program this year all work planned for this route was given up and therefore no maintenance was done on the road.

Next season there will have to be some maintenance work performed so that the people in the area will be able to use the road.

## 10. Route 040.1 Candle Creek W.O.(None) 7.3 miles

Road maintenance on this route was done by Havenstrite Mining Company with funds and authorization received directly from the Territorial Highway Engineers Office at Juneau.

## 11. Route 040.3 Lost River Road W.O. 414 6.3 miles

The construction on this road was begun on the 4th of June and completed on the 17th of October.

During the construction season the entire road (6.3 miles) was widened to the required 14 feet and the grade raised where needed. 4690 yards of gravel was hauled on the road where it was required by the use of two trucks and one carryall which arrived at Lost River at the end of the season. All widening was done with two D-3 dozers and smoothed up with a small motor patrol. All culverts were extended and a few additional ones added where needed. All work on this route was performed by a three-man crew.

The entire road was maintained by motor patrol during the season as required.

The road is now completed except for the bridge over Lost River and a wooden culvert for Rapid River. The Lost River bridge material arrived on the last boat and due to the lateness of the season and bad weather the bridge construction could not be done this year.

## 12. Haycock Bridges W.O. 423

Two contracts were given to Carl Swanson at Haycock, Alaska to construct four bridges. Three of the bridges were in the vicinity of Haycock proper and one

over Dime Creek about  $2\frac{1}{2}$  miles south of Haycock.

The contractor furnished all material (native logs) and labor to construct the four bridges.

I inspected the completed bridges on the 19th of October and found that Mr. Swanson did a very good job. These bridges should serve the needs of the people of the Haycock area for a good many years without requiring any repairs or replacement.

## 13. Route 042 Nome-Kougarok Extension W.O. 424

2.8 miles

The Nome-Kougarok road was extended up the right limit of Nome River to the Seward Peninsula Railroad Bridge over Nome River, a distance of 2.8 miles.

The greater part of this construction work was accomplished with a crew of three men using three D-8 dozers and two carryalls. When culvert installation was required a couple of laborers from other jobs were used.

During the season, 30,675 yards of gravel was hauled onto the road from the bottom of Nome River. Approximately 12,000 yards of material was pushed up with the dozers to make fills for the creek crossings and the south approach on to the Nome River Railroad Bridge.

The road is now 90% complete from the end of the Nome-Kougarok Road to the Nome River Railroad Bridge.

### Summary of work

Material hauled by carryalls 30,675 yards
Material pushed up by dozers 12,000 "
Total 42,675 yards

#### 14.

#### Big Hurrah Road

W.O. 425

3.0 miles

A road was constructed up Big Hurrah Creek to Big Hurrah Mine, 3.0 miles in length. The road was built up the old tailing in the creek bottom by the use of one man and the TD 14 dozer. After the road bed was dozed up, the motor patrol smoothed it. It now is a very good road.

## 15. Deering Airfield W.O. 426

It was requested by the Territorial Department of Aviation that we fill and grade the portions of the field damaged by permafrost action and generally rehabilitate the north-south runway. We put 984 yards of material on the field and smoothed it up with the motor patrol to the extent of the funds allowed.

## 16. Minnehaha Creek and Virginia Creek Bridges W.O. 427

Due to the lateness of the boat arriving at Candle, the contractor who is going to build these bridges was unable to construct them this year as there were no laborers willing to work on them at this time. All bridge material was hauled to the construction sites.

It is requested the funds be set up next season to construct these bridges.

## 17. Rock Haul for the Corps of Engineers W.O. 428

952 yards of rock was hauled from Cape Nome Bluff to the Nome Harbor for the Corps of Engineers.

## 18. Lost River Airfield W.O. 429

Work was begun on this project on the 2nd of September to 17th October.

During this period the drainage ditches were constructed on both sides of the airfield and 20,200 yards of material was moved by the use of two D-8 dozers and one carryall with a crew of three men.

Total work accomplished this year is as follows:

| Between   | Station | 0/00              | and | 5/00               | 60% | complete |
|-----------|---------|-------------------|-----|--------------------|-----|----------|
| <b>()</b> | 11      | 5 <del>/</del> 00 | and | 15/00              | 10% | "ii,     |
| ti        | 11      | 15/00             | and | 36 <del>/</del> 00 | 90% | 11       |

## 19. Route 401 Nome Depot

General maintenance necessary was performed on the Depot to keep it in good condition.

## Summary of Major Work

## Route 041, Nome-Council

19,880 cubic yards of gravel hauled.

## Route 042, Nome-Kougarok and Locals

15,450 cubic yards of gravel hauled.

## Route 042.1 and 042.2, Nome Locals

3,100 cubic yards of gravel hauled.

## Route 040.3, Lost River Road

4,690 cubic yards of gravel hauled.

## Route 042, Nome-Kougarok Extension

42,675 yards of material moved.

## Deering Airfield

984 cubic yards of gravel hauled.

## Lost River Airfield

Carlor (

20,200 yards of material moved.

Total material moved: 106,979 cubic yards

Building 49 (Blacksmith shop) was moved and attached to building 45 (shop) and all our iron supplies have been moved into this building out of the weather.

Building 45 was reroofed with heavy galvanized tin and given a coat of tar. The washroom was fixed up with running water, lavatory and water closet.

## 13. Route 040.3 Lost River Road

<u>W.O. 414</u> 6.3 miles

The construction of this new road, between the mouth of Lost River and the tin mine a distance of 6.3 miles, began on the 21st of July and completed on the 22nd of August.

The roadway section is mostly a fill section, 16 feet wide and 2 to 3 feet high. The greater part of this work was done by dozers and the soft places filled by trucks.

Yardage Moved:

Dozer

64,600 cubic yards

Trucks

3,390 cubic yards

This road is about 98% complete. There maybe a few sections that will require some gravel next spring over the soft spots that were frozen when the road was graveled.

The last report received, a week or so ago, the road was still being used and it was blowing clear of snow.

## 14.

#### Anvil Road

W.O. 422

1.8 miles

During the latter part of the season a road was constructed from the Dexter Road to Anvil Road for the Army, a distance of 1.8 miles. This road was surfaced with 5,825 cubic yards of gravel.

## 3. Route 042 Nome-Bessie

W.O. 42

3.1 miles

This route, during the winter, was maintained from the Nome City limits to the City Airfield a distance of 3/4 of a mile.

During the summer maintenance season only general grader maintenance was performed.

## 4. Route 043 Seward Peninsula Railroad W.O. 43 80.2 miles

The work season for the Seward Peninsula Railroad began on the 27th of June and closed on the 8th of September.

The railroad was opened to Bunker Hill for the public on the 26th of July.

During the work season, the railroad was given only general track and bridge maintenance. The work accomplished consisted of repairing 4410 feet of track and 775 feet of trestle. Material used for the maintenance consisted of 1110 ties and 5050 board feet of lumber for trestle repair and leveling of track.

As far as can be ascertained, it is doubtful if over 75 tons of freight was moved over this route. The majority of the freight that was hauled was for the contract construction of the airfield at Quartz Creek.

As the railroad section beyond Iron Creek to Bunker Hill has been proposed for abandonment and has also been advertised for sale by the Territory. I have talked with Mr. Straub who has done the freighting on the railroad in the past for the people in the Kougarok area on this subject. His feeling concerning the railroad is that the track should be left intact but not maintained beyond Iron Creek. Mr. Straub believes that by leaving the upper section of track intact it can be used for quite sometime. As he is the only one hauling freight to the Kougarok area besides the Alaska Road Commission, he believes that if the freight hauled over the track was done before the frost comes out of the ground orduring the dry part of the season this section could be used for quite a few years yet.

I would like to recommend that if the Territory is unable to sell this upper section that a sign be placed at the Iron Creek Bridge stating that "Beyond this point all traffic travels at their own risk."

If the Territory does sell this upper section I would like to have it recommended to them that the sale be such that the track when removed be done from the upper end, Bunker Hill, toward Iron Creek only and be left open for travel for the public at their own risk until the track is taken up.

- 2 -

## 5. Route 040.2 Deering-Inmachuk W.O. 47 25 miles

The work season for this route was from the 17th of July to the 4th of October.

During the work season only general maintenance work was performed on this route. During the season 7150 cubic yards of gravel was placed on the soft spots of the road.

This road is 25 miles in length but is now only used to mile 19 where the dredge operations are going on and was only maintained for the first 19 miles.

## 6. Route 040.3 Teller-Bluestone W.O. 48 15.5 miles

The work season for this route was from the 23rd of June to the 5th of August.

During the season only general maintenance work was done on this route.

I believe that during the work season of 1953 someone from the Juneau office should take a trip over this route and determine whether or not this road should be maintained in the future as there is very little use made of it during the year.

## 7. Route 041.1 Nome-Council Locals W.O. 44 35 miles

This route includes the Council-Orphir Creek (12.0 miles), Casa De Paga Road (20 miles) and Shovel Creek (5.0 miles). These roads were not used this season and therefore no maintenance work was done on them.

## 8. Route 042.1 & 042.2 Nome Locals W.O. 45 56.0 miles

A. Route 042.11 Nome Wireless 0.2 miles

This route was graded once during the season.

B. Route 042.12 Bessie-Snake River 21.5 miles

This route required 8 miles of snow removal which was done at the beginning of the work season.

During the season general maintenance was carried on. The road was regraveled between 5 and 9 mile with about 4700 cubic yards of gravel. Four 13" X 18" X 22' culverts were installed at Anvil Creek,

mile 5.5, one 4' round culvert was installed at 15 mile and one 3' culvert was installed at 17 mile.

C. Route 042.13 Snake River-Monument 3.0 miles.

This route was not maintained at all during the season.

D. Route 042.14 Bessie-Sunset Creek 12.0 miles

Snow removal on this route was performed to the Sunset Bridge, a distance of 6 miles. In case of an ice jam in Snake River, the road could be used as an access to clear the ice away before the bridge would be destroyed.

During the season general maintenance was performed. Three days were spent graveling the soft spots between 5 and 10 mile. About 425 cubic yards of gravel was used, at 9 mile one 3' culvert was installed.

E. Route 042.15 Bessie-Osborne 10.5 miles

During the work season only general grader maintenance was performed on this route.

F. Route 042.16 Bessie-Buster 8.3 miles

Snow removal on this route was performed over the entire distance of 8.3 miles.

During the work season general maintenance was carried on. This road was resurfaced from the U.S.S.R. & M. Company dredge to the top of the hill with approximately 3100 cubic yards of gravel.

G. Route 042.21 Spruce Creek 1.5 miles

This route was not maintained at all during the season.

H. Route 042.22 Center Creek 3.5 miles

During the season this route was given only general grader maintenance.

I. Route 042.23 Little Creek 0.8 miles

During the season this route was given only general grader maintenance.

### SUMMARY OF MAJOR WORK

## Route 041 Nome-Council

9,500 cubic yards of gravel hauled.

## Route 040.2 Deering-Inmachuk

7,150 cubic yards of gravel hauled.

## Route 042.1 & 042.2 Nome Locals

8,225 cubic yards of gravel hauled.

## Route 043.1 Bunker Hill-Kougarok

1,250 cubic yards of gravel hauled.

## Route 041 Nome-Council Reconstruction

1,200 cubic yards of gravel hauled.

## Route 040.3 Lost River

3,390 cubic yards of gravel hauled.

## Anvil Road

5,825 cubic yards of gravel hauled.

Total gravel hauled: 36,540 cubic yards.

#### J. Route 042.24 Submarine Paystreak 3.0 miles

This route is now on the Army airbase and was maintained by the Army.

#### Bunker Hill-Kougerok Houte 043.1 W.O. 46 40.5 miles

The maintenance camp on this route was opened on the 18th of June and closed on the 8th of October.

During the season only general mainteance was carried on.

#### 10. Koute 040.1 Candle-Candle Creek W.O. None 7.3 miles

Road maintenance on this route was done by Havenstrite Mining Company with funds and authorization received directly from the Territorial Highway Engineer's office at Juneau.

#### 11. Route 041 Nome-Council Reconstruction W.O. 410

The work on reconstruction began on the 22nd of July and closed on the 11th of October.

During the season 8.2 miles of new located road was made onto the sidehill out of Fox River. Of the 8.2 miles of new road 3.9 miles is 90% completed and the 4.3 miles is 50% completed. The 4.3 mile section will require nearly all of it to be graveled and the 3.9 mile section only a few soft spots. When the above 8.2 miles are completed the road will be completely out of the river bed of Fox River.

During the wet periods of the season, when the crew was unable to work on the Fox River section, the old road between East Fork-Skookum divide and Skookum-Fox River divide was relocated, a distance of 2.9 miles and was 80% completed. This new section eliminates the steep down-grade from East Fork and the steep up-grade to the Fox River divide.

#### 12. Route 401 Nome Depot

During the year two additional apartments have been completed in building 18 and are now being occupied by personnel. Between building 44 (pert storage warehouse) and building 43 (property office and warehouse) a furnace was installed in a tin shed to furnish heat to both buildings. By this we have eliminated a great fire hazard in building 43 which was heated by two oil stoves and also have heat in our parts storage warehouse.

Route

Work Order

7

15.

Summary of Major Work

Very truly yours,

John M. Cooley, District Engineer

Enclosure

JMC:mb

#### 1. Route 040

Trail Flagging

W.O. 49

About 200 miles

During the winter, trails were flagged in the outlying areas for the fishing, hunting and travel endeavors of various villages and are as follows:

| LO                         | CATION  | DISTANCE |   |
|----------------------------|---|----------|---|
| B.<br>C.<br>D.<br>E.<br>F. | Teller Golovin Kotzebue St. Michael Cape Nome Deering Mary's Igloo District | 34<br>5  | miles miles miles miles miles miles miles miles |
|                            | Total   | 142.5    | miles   |

### 2. Route 041

Nome-Council

W.O. 41

78 miles

Spring snow removal was performed from Nome to Cape Nome a distance of 14 miles to allow early access to the ACS and CAA transmitter sites.

During the summer work season general spring and summer maintenance work was carried on.

The two ferries, Safety and Solomon, were repaired and put into service for the public, 18 June to 21 October and 19 June to 21 October respectively. The Solomon ferry was equipped with a gasoline power unit to power the ferry back and forth, this replaced the hand method of pulling the ferry. By hand, it often required thirty minutes or more to cross but with the power unit it could be crossed in about three to four minutes and proved to be very successful during the season's operation.

The gravel crew spent approximately  $3\frac{1}{2}$  weeks hauling 3800 cubic yards of gravel from the Solomon River across the Solomon ferry for the spit road between the Safety and Solomon ferries. This spit road now requires about  $1\frac{1}{2}$  miles additional graveling to be completed.

The two old wooden bridges at Hasting Creek, mile 10.5, were replaced with two elephant huts and the fill raised and surfaced with approximately 2500 cubic yards of gravel.

The Cape Nome bluff was widened for about 1000 feet and part of this material (3200 cubic yards of rock) was hauled to  $17\frac{1}{2}$  mile where the bad washout section was raised on an average of  $1\frac{1}{2}$  feet.



# UNITED STATES DEPARTMENT OF THE INTERIOR ALASKA ROAD COMMISSION

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January 28, 1953

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Lood report

Mr. Wm. J. Niemi Chief Engineer Alaska Road Commission Juneau, Alaska

Subject: Annual Report, Year 1952.

### Dear Sir:

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The following is the Annual Report applicable to the Nome District for the Year 1952.

|     | Route          |                                    | Work Order | Page  |
|-----|----------------|------------------------------------|------------|-------|
| 1.  | 040            | Trail Flagging                     | 49         | 1     |
| 2.  | 041            | Nome-Council                       | 41         | 1     |
| 3.  | 042            | Nome-Bessie                        | 42         | 2     |
| 4.  | 043            | Seward Peninsula Railroad          | 43         | 2     |
| 5.  | 040.2          | Deering-Inmachuk                   | 47         | 3     |
| 6.  | 040.3          | Teller-Bluestone                   | 48         | 3     |
| 7.  | 041.1          | Nome-Council Locals                | 44         | 3     |
| 8.  | 042.1<br>042.2 | Nome Locals                        | :<br>45    | 3-4-5 |
| 9.  | 043.1          | Bunker Hill-Kougarok               | 46         | 5     |
| 10. | 040.1          | Candle-Candle Creek                | None       | 5     |
| 11. | 041            | Nome - Council Reconstruction      | 410        | 5     |
| 12. | 401            | Nome Depot                         |            | 5–6   |
| 13. | 040.3          | Lost River Road (New Construction) | 414        | 6     |
| 14. |                | Anvil Road (New Construction)      | 422        | 6     |

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# UNITED STATES DEPARTMENT OF THE INTERIOR

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ALASKA ROAD COMMISSION

JUNEAU, ALASKA

Nome District

February 8, 1951

Mr. A. F. Ghiglione Chief Engineer Alaska Road Commission Juneau, Alaska

Subject: Annual Report - Year 1950

Dear Mr. Ghiglione:

The following is the annual report applicable to the Nome District for the year 1950:

General Maintenance - Mile 0 to 46

#### Route 8: Nome-Council

Heavy snow fall and drifting snow during the month of January called a halt to the operations of Manson & Osberg, Nome sea wall contractor. This involved the road from Nome, mile 0, to their quarry site at mile 14. An attempt was made by the contractor to reopen the road using D8 tractors without success, due not only to the amount of snow, but also to recurring strong winds that caused drifting almost as soon as snow was removed.

Upon request by Mr. Gerard, contractor's representative, and the people of Nome the Juneau Headquarters authorized Nome District to cooperate in snow removal operations during the month of February, which however was not feasible or practical due to recurring blizzards. After the 9th of April weather conditions changed for the better giving rise to the hope of an early spring. This was short lived for cold weather set in again about the 29th retarding the thaw. The sea wall contractor took advantage of the good weather and started snow removal on the 10th and completed the operation to mile 13 by the 21st. This was done with contractor's forces only, with the understanding that any future snow removal would be done by ARC forces.

In cooperation with ACS and CAA to open transportation facilities to their respective receiver sites, ARC forces started snow removal operations on the 27th of April continuing at mile 13 where the contractor left off. Considerable glacier ice was encountered on the road between mile 13 and 14 and was partly removed by blasting with dynamite. Snow removal operations were concluded by May 5 with a total of 4 miles completed.

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Road was closed to the public, except in emergency, because of the soft condition and repairs being carried on by the contractor.

Actually the spring run off did not occur until May 15 and did not reach serious proportions due to cold weather at night. In cooperation with contractor several small culverts were thawed by ARC forces. No serious washouts occured except at Hastings Creek mile 11, due to stream glaciering in this area, but was soon checked and repaired by contractor's forces with little loss of time.

Contractor limited his operations to spot gravelling the road between mile 1 and 13½. Beach gravel was used for this purpose and was the only material available as all other borrow pits were still frozen. This material worked out satisfactorily mixing with the existing mud and gravel and drying to a reasonably good surface. By May 9 the sea wall contractor started hauling light loads of rock from quarry to Nome.

Condition of road was still soft due to frost and necessitated almost constant repair by contractor's forces. It was also necessary to maintain the surface constantly with a motor grader. In view of the contractor performing so much of the maintenance they were allowed the use of an ARC Caterpillar #10 motor grader, No. 718, assuming full responsibility for it's operation. By the end of May road was sufficiently dry to allow the hauling of capacity loads. For hauling rock contractor used 10 ton Ford V8 with tandem drive. Average gross weight of vehicle and load amounted to about 45,000# or  $22\frac{1}{2}$  ton.

Steel bridge - mile 4, over Nome River, stood up well under the pounding. However, all precautions were taken and a 10 mile speed limit placed on the bridge. To protect the public and the contractor no fishing was allowed from the bridge during truck travel. By the end of May travel was opened as far as Safety mile 21, to the public with the request that extreme caution be used especially during the operations of the contractor.

During the month of June small mud slides occured at Cape Nome Bluff between mile  $13\frac{1}{2}$  and  $14\frac{1}{2}$  and were removed with an Adams #512 motor grader. Thawing action causes this condition each spring and has never been serious enough to close the road off entirely. Eventually a natural slope will be formed from this continuous action.

General maintenance was continued with the cleaning of culverts and ditches between mile  $13\frac{1}{2}$  and 15 and maintenance of road with motor graders between mile  $13\frac{1}{2}$  and 18. Maintenance beyond this point to mile 34 on the spit is not feasible with motor graders due to sod and sand conditions.

On June 16th, as soon as danger from ice at Safety was past, both Safety and Solomon ferries were placed in operation and continued throughout the season with interrupted service only during several Bering Sea storms. Use of ferries was more than normal and this can be explained

as follows: The 30th Engineer Base Topographic Battalion, Corp of Engineers, under the able command of Major Slater, set up a base camp of 150 men at mile 39 at Solomon for survey operations in the Solomon and Council areas. Material, provisions, equipment and personnel were transported from Nome and involved about a 12 day operation besides continued servicing during the season until completion September 15th. In cooperation, 24 hour ferry service was maintained, ARC personnel being augmented by Army personnel for the additional hours of operation. Mining operations and ARC operations, both maintenance and reconstruction, also contributed their share. Number of vehicles using the ferries during the season amounted to 867 and persons 2763.

Ferry service was maintained in spite of ice and storm conditions until all freighting of material and supplies delivered to Nome on the last Alaska Steamship boat of the season had been accomplished to Solomon. Solomon ferry terminated on October 28 and Safety ferry on October 31, two days later, due to ice conditions and extremely low water.

During the month of July continuous dry warm weather and unusual heavy traffic caused disintegration of the travelled way between Safety ferry and the Solomon ferry, so badly that it was almost impassable for even 4x4 vehicles. In some cases a new route was started parallel to the existing one, but after several days this was also in bad shape so that at present there are several routes on the spit. Immediate repairs could not be undertaken due to the lack of the Quickway, pneumatic tired shovel, which had broken down at an earlier date necessitating repair parts from Seattle. This delayed maintenance repairs which did not start until the end of July.

M. A Northwest 1/2/shovel was borrowed from the Army with the understanding that it would not be moved from the vicinity of the Base and consequently could only be used on Nome Locals, Routes 13 and 25.

In explanation, the section of road on the spit between ferries, mile 21 and 34 is very difficult to improve or retain. The reason is the lack of suitable material for stabilizing or covering the sand condition that prevails. Suitable material can only be obtained from borrow clay pit at mile 15 or borrow gravel pit at mile 36 or 38. Either way involves a long haul and the use of the ferries which is a very slow and costly operation. Seasonally, sections have been stabilized with clay or gravel only to be washed out by Bering Sea storms in the fall so that it is very evident that anything that is accomplished is of a temporary or seasonal nature.

As stated maintenance repairs were started at the end of July and continued until September 10 at which time work was concluded in order to keep within the project allotment. Maintenance included raising of fill at mile  $17\frac{1}{2}$  to eliminate small Bering Sea storms from washing out the road. Heavy rock and clay was hauled from borrow pit at mile 15 for base course and then surfaced with a light layer of pea

gravel obtained in the vicinity. Upon completion sand was then dozed up from the beach to the surface edge of the road, on an even slope so that high water and waves would roll over it without washing it out. This was just a follow through of the natural action that was taking place for the sea was forming a natural beach up and over the road. Area involved 2000! \( \frac{1}{2} \).

Foreman Mel Jolliffe and crew of 8 men were responsible for maintenance work accomplished and by end of August a decided improvement had been made between mile 17 and 34, especially noticeable between mile 21 and 34 which had been in such bad shape. Holes were filled with clay and sod, gravel was hauled from borrow pit at mile 36 to cover the worst sand areas and pea gravel obtained along the road was placed in the muddy areas to stabilize this condition. Grade was maintained with tractor and maintainer on several occasions between mile 17 and 34 and helped the riding surface considerably. Resurfacing operations were carried as far as mile 38, using gravel from borrow pits at mile 36 and 38.

While operating in the vicinity of Solomon, maintenance crew boarded at Pete Curran's Road House, mile 35, which was not only conveniently located but also eliminated the trouble and expense of setting up another camp.

A 1000' relocation was made at mile 36 to eliminate an old bridge and dangerous curves. Cut and fill was made with tractor and dozer amounting to 2000 c.y.  $\neq$  and the installation of a 36"x30' culvert.

A severe ice storm occuring during the month of January had knocked down a good portion of the telephone line between Safety and Solomon ferries. Lack of this service was a distinct handicap in the operation of the ferries and replacement was a necessity, consequently work of putting the line back into service was undertaken by the maintenance crew and completed before the end of August. Twice, wire had been strung across the Safety channel but tension was too great and it would not support it's own weight. Not enough of the special steel wire used originally could be salvaged to make the crossing so we had to be satisfied with the service starting on the east side of Safety. Considerable work was involved in this operation for it meant setting poles, salvaging of wire and insulators from unused line between Safety and mile 15 and the replacing of the wire on the poles.

Moving of crew back to Nome that was to have been completed by September 10 was delayed by the occurence of a Bering Sea storm on September 9 and 10, which prohibited the use of the ferries especially at Safety. The storm was also accompanied by heavy rain and caused several washouts between mile 36 and 39. While waiting for ferry service to resume, crew made the necessary repairs to enable the continuation of travel.

As usual about 600' of road had been partly washed out at mile  $17\frac{1}{2}$  and repairs were necessary for continued use, before equipment returned to Nome. Rock and clay was hauled from pit at mile 15.

In the course of operations during the month of September surface was maintained from mile 0 to 18 on two occasions with motor graders, from mile 18 to 34 on two occasions, with tractor and maintainer and from mile 34 to 42 on one occasion, with tractor and pull grader.

In cooperation with local miners, branch roads were graded with tractor and dozer - Big Hurrah Creek, 3 miles and Casa De Paga, 8 miles. This was the only maintenance necessary as mining operations in these areas were at a minimum and use was only occasional.

Storm damage occurring during the end of September was repaired by tractor and dozer enroute to construction job at the Council end.

Another storm period extending from October 13 to 21 delayed the unloading of the Alaska Steamship Square Sinnet, which made it necessary to maintain ferry service longer than anticipated or deemed safe. This storm caused some damage at east approach of Nome River bridge mile 4, at Hastings Creek mile 11 and at wile  $17\frac{1}{2}$ . The contractor assumed the responsibility and repaired the damage at mile 4 and 11.

Considerable damage had been done at mile  $17\frac{1}{3}$  with almost the entire length of 2000' partly washed out badly enough to close road. It was necessary to repair this damage and to make the road at least passable to permit the hauling of freight from the last boat at Nome to Solomon.

This was not the last of the Bering Sea storms for another hit and lasted from November 6 to 10. Slight damage occured at mile 4 and 11 and repairs were made by the sea wall contractor in order to continue his operations. According to reports from reliable sources both ferries at Safety and Solomon were safe, slight damage was caused at several points between mile 21 and 34 and as expected entire 2000' of road at mile  $17\frac{1}{2}$  was badly washed out and will have to be replaced during next seasons operations.

The Nome sea wall stood up well under the pounding of heavy seas during these storms and certainly eliminated any damage to water front property. Wall was completed by November 30.

At end of season, between mile 1 and 15, culverts were cleaned and staked, bridges and drifting areas staked in preparation for snow removal next season.

#### Work Accomplished:

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Snow Removal - Total 5 miles

Metal culverts installed, Mile 36 - 1-36"x30'

" 13 - 1-15"x22'

Maintenance with motor grader - Total 40½ miles

" tractor/maintainer - Total 74 miles

" " /pull grader- " 14 miles

" " /dozer - " 11 miles
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Cut and fill w/dozers - 4320 c.y.
Clay and rock, hauled and placed - 1025 c.y.
Sod hauled - 300 c.y.
Gravel hauled - 8016 c.y.

Bridge repairs - minor. Mile 11, timber bridge 201.

## Route 8: Nome-Council

Reconstruction and Improvement - Mile 46 to 76.5

Operations started on this project with the transportation of heavy equipment to construction camp site at mile 71. Enroute, necessary repairs were made between mile 35 and 46 to washouts occurring during the spring break up.

Temporarily, a small crew stayed at maintenance camp at East Fork, mile 47.5, until repairs were completed to Bucyrus 15B shovel and glacier ice in East Fork had melted enough for crew and equipment to proceed to mile 71. In the interim, a relocation mile 46.5 to 47.5, a continuation and improvement of the relocation done last season as far as mile 48.7 was completed. The reason for this additional relocation was to detour around the excessive drifting and glaciering that prevails at the mouth of East Fork.

Cut and fill was made with tractor and dozer for the most part and gravel surfacing placed with carryall and with shovel and truck, on completion of shovel repair. No culverts had been installed last season on new relocations and this was done at this time. On completion of relocation crew continued to 71 mile camp, repairing washouts and surfacing with tractor w/carryall as they went along.

By the 19th of July, camp mile 71 was established and operations began immediately on continuation of the road across the Council flats, mile 73.9 to 76.5, distance of 2.6 miles (estimated distance had been 3.1 miles). Several slight washouts had to be repaired, but otherwise road from mile 71 to 73.9 was in good shape. Maintenance of road was completed between mile 46 and 71 with tractor and carryall and pull grader to facilitate the hauling of freight for ARC camp and operations.

In prospecting for better borrow, Foreman Crosby was fortunate in locating one at mile 71 just south of the construction camp. Material consisted mostly of shale easily broken up and dozed. Later dynamite was used to break up the rock for easier handling. It made splendid fill and despite long haul road was soon completed as far as Bear Creek mile 75. As material from borrow pit, mile 71, was very course it was used for subgrade only and surfaced later with gravel from Bear Creek. In exceptionally bad areas beyond Bear Creek course material from 71 was used, but when fair going was encountered creek gravel was used entirely.

Weather remained perfect for most of season, being dry and warm and was a factor decidedly in our favor.

In most cases the existing corduroy was followed except from mile 74.5 to 74.9 where it was so badly torn up that very little was intact and area was extremely wet and soft. Road was shifted on an average of 50', east and parallel, sacrificing alighnment for better ground for it was important to get the road through regardless.

Bear Creek had been reached by August 16 and equipment then moved, after all bad fills had been made, for a shorter haul.

During the course of construction corduroy, using spruce and cottonwood, was placed in areas where existing corduroy had broken through and was instrumental in cutting down the amount of gravel for fill. In most cases ditching was kept to a minimum as it was not practical to disturb the tundra, which might cause thawing action and settlement. Therefore, it was done by hand when necessary to drain away from fills. Metal culverts of varying dimensions were all installed to improve drainage conditions.

Bridge over slough, mile 76, was rebuilt. It was of timber construction 12' wide and 24' long. Slough was deepened 3' by blasting out of point 300' east of bridge. This lowered water 3' at bridge and also drained a considerable area in the vicinity.

Enough gravel had been placed by September 21 to enable freight to be hauled all the way to the bank of the Niukluk River and actually was hauled at this time by Peter Curran Jr. for the Council miners. Shovel was moved to new borrow pit at the Niukluk River in order to lessen haul as it was necessary to build up the grade for the last mile. Additional gravel was also placed for surfacing and upon completion was graded with motor grader.

At end of September operations were transferred to mile 71, for continuation of work on relocation mile 69.5 to 71.0. Work completed was as follows: ditching and grading subgrade with tractor and pull grader 1.5 miles, gravel hauled for surfacing of mile 70.9 and the installation of a 48" culvert plus several smaller culverts.

At end of season preparations were made for breaking camp at mile 71. Several tent frames were left at this location for maintenance operations next season. The balance was moved back to mile 62 for probable use during next seasons reconstruction program. All camp supplies and equipment were moved back to Nome. Some delay was experienced in getting the heavy equipment back due to low water at Safety ferry.

On the return to Nome a new culvert was installed, 36"x30' at Skookum gulch mile 58, and final grading of road was accomplished with tractor and pull grader mile 71 to 48. This placed the road from

mile 35 to 76.5 in excellent shape and allowed completion of all freight haul from Solomon to Council. It was necessary to close operations by October 8 as allotted funds were all used up, but it was gratifying to note that Barney Crosby, foreman, was willing to donate his leave time if necessary, in order to complete grading the road all the way through.

During the season an emergency landing field was constructed on a gravel bar in Fox River just south of camp, mile 71. Very little grading was necessary and a field as close to camp proved very convenient on several occasions. Field is approximately 100'x800' and should be considered only temporary, unless graded every year after the spring break up.

Radio communication was maintained during the season with fair success only. Atmosphere conditions were evidently the contributing cause.

#### Work Accomplished:

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(A) Relocations & Improvement between mile 46.0 and 71.
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1. Metal culverts, new, installed. 12 units - 298 L.F.

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Mile 55.5, 1-36"x28'
Mile 46.5, 1-13"x22'
                                    58.0, 1-36"x301
     46.7, 1-13"x24'
                                 11
     47.1, 1-18"x22'
                                   69.5, 1-48"x30'
     47.3, I-18"x221
                                     70.0, 2-16"x24"
     47.5, 1-24"x24"
                                     71.0, 2-13"x24"
```

- 2. Ditching w/tractor and pull grader 1.5 miles Total
- 3. Cut and fill with dozers Total 9065 c.y.
- 4. Rock hauled and placed 213 c.y.
- 160 c.y. 5. Cut and fill w/carryall
- 6. Gravel, hauled and placed w/carryall 1600 c.y.
- 7. Gravel, truck and shovel 1615 c.y.
- 8. Maintenance road w/tractor and pull grader Total 73 miles

## (B) Reconstruction mile 71 to 76.5

(Actual length of road constructed 14,702' or 2.6 miles)

1. Gravel hauled and placed, including turn outs, subgrade and surfacing -22,197 c.y. Total

```
460 L.F.
2. Corduroy placed
```

5000 L.F. 3. Ditching by hand

4. Maintenance with motor grader during 264 miles gravel operations

5. Bridge rebuilt, mile 76 - timber - 12' wide, 24' long

6. Rock (Bear Creek crossing)- 60 c.y.

7. Metal culverts, new, installed. - 9 units - 216 L.F.

| Between mile | 74.6 | & | <u>76.</u> 7 |   |
|--------------|------|---|--------------|---|
| 1-48"x261    |      |   | 1-12"x24     | 1 |
| 3-24"x241    |      |   | 1-26"x22"    | l |
| 1-16"x241    |      |   | 2-18"x24     | ļ |

Annual Report, Year 1950 - Cont'd

Route 8D - Council - Ophir

Road was passable although no maintenance work was done by ARC. Very little use is made of this road due to limited mining operations.

Route 8H - Casa De Paga

Considered a branch of Route 8. Road made passable mile 0 to 7 with tractor and dozer. Mining operations are almost negligible and very little use was made of the road during the season. An effort was made to relocate the road by grading an old railroad grade in order to

eliminate a bad stretch of corduroy on top of the hill at mile 7. It was found, however, that ground was to soft and could not be graded with tractor and dozer. Time did not allow any further prospecting so bad

stretch of corduroy was gravelled and will hold temporarily.

Route 13A - Nome - Bessie

This road is considered an access road to the city airfield and in cooperation with local bush pilots and air transportation companies, was maintained during the winter months of January through March. At request of Nome businessmen and authorization from Juneau Headquarters, winter maintenance activities were extended as far as the red hangar, mile 2.4.

During the month of November ice conditions prevailed making travel very dangerous. Sand could not be obtained, being frozen, so D8 tractors were used to roughen the surface and proved satisfactory. Winter maintenance was to January 1 with very little having to be done in regards to snow removal.

Seasonal operations started off on May 10 with removal of snow for the balance of the road to mile 4.2. Road bed was very soft and was closed to the public until May 16 when it was sufficiently dry for all traffic. Slight washouts occurred at mile 1 opposite city field during spring run off. This was partly due to lack of a culvert and to eliminate a recurrence, a culvert was installed later in the season. Gravel was placed in washouts.

Due to U.S.S.R. & M. Company dredging operations at mile 3, it was necessary to maintain a detour of about 0.5 of a mile. This was originally put in by the Company but was considered dangerous by ARC District Engineer and consequently changed. Very little extra work was necessary. Periodic maintenance with motor graders was necessary during the season due to heavy traffic especially mile 0.5 to 2.

At end of season culverts and bridges were cleaned and staked in preparation for snow removal operations next spring and probable winter maintenance.

## Work Accomplished

Culvert, metal, installed. Mile 1.5 - 1-24"  $\times$  36' Gravel hauled and placed - 65 c.y.

# Route 13A - Nome - Bessie Cont'd

Maintenance with motor graders. Total 36.5 miles. Snow removal. Total 3.2 miles.

#### Route 13B - Bessie - Snake River

Snow removal was started on May 17 in cooperation with U.S.S.R. & M. Company and was completed only as far as Glacier Creek, Mile 5, May 20. Glaciering and high water in Glacier Creek prohibited continuing and in as much little use is made of the road beyond this point, no attempt was made to clear further. This was also a precaution, for this road is extremely muddy and soft in the spring and it was concluded that considerable maintenance would be eliminated by allowing nature to take its course. Very few washouts occurred and were repaired during maintenance operations.

Unexpectedly, numerous requests were received to open the road, so repairs were started June 27. Circumstances changed work plans so more was done on this route than anticipated, concentrating on resurfacing and drainage Mile 7 to 19.

Due to break down of Quick-way shovel, a Northwest  $\frac{1}{2}$  c.y. shovel was borrowed from the Army, with the understanding that it would remain in the immediate vicinity in case they should need it. Maintenance and repairs were completed on other local roads so shovel was moved to Mile 10.

Work of improvement continued until Quick-way shovel was repaired at the end of July. For balance of season maintenance of road continued with motor graders. Inspection after heavy rain in September showed the work of improvement to have been worth while for road was in excellent shape.

At end of season culverts were cleaned and staked. All bridges and road locations where drifting occurred were staked in preparation for snow removal next season.

- 10 -

#### Work Accomplished

Rock placed in washouts. Total 21 c.y. Gravel hauled and placed (Machine) Total 11,044 c.y. Fill with dozer. Total 250 c.y. Ditching with motor grader. Total 15.5 miles Bridge repairs, minor, mile 19. Total 1 unit. Culverts, metal, repaired. Total 40 units - 168 L.F. Culverts, metal, installed. Total 9 units - 182 L.F. Mile  $14 - 1 - 13^{11} \times 20^{1}$ Mile 10 1-18" x 20' 8 1-12" x 201 11 1-18" x 18" 11  $1-13^{11} \times 20^{1}$ 11 8 16 - **2-**18" x 20' 10 1-18" x 24" 11 16 1-15" x 20" Culverts extended, mile 6, 1-36" x 3" Culverts, metal, rebuilt and replaced. 5 units - 90 L.F.

Maintenance with motor graders. Total 90 miles

Snow removal. Total 5miles.

#### Route 130: Bessie-Sunset

Season started with snow removal on May 3, and completed as far as mile 5 on May 9. Road was closed to public until the latter part of May due to soft road bed conditions and flooding caused by overflow of Snake River. Blasting of ice jams, to protect Snake River bridge, was necessary on several occasions between May 18 and 20.

This route is badly in need of surfacing and drainage, but in view of the slight use made of it only necessary repairs were made during the season to make it passable. Periodic maintenance with motor grader improved the surface so that road was in fair shape during the season. At mile 1.0 dyke was constructed, using D8 tractor & dozer, parallel to and on north side of road, between road and Anvil Creek, in order to eliminate glaciering over the road which was the cause of washouts during the spring break up. This condition had been under observation for sometime and it is believed that a dyke might be the solution.

At end of season all culverts were cleaned and staked, bridges and drifting areas were staked in preparation for snow removal next spring.

#### Work Accomplished:

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- 1. Snow Removal Total 5 miles
- 2. Maintenance w/motor grader Total 19½ miles
- 3. Dyke construction 1000 c.y. /.

#### Route 13F: Bessie-Osborne

Snow removal started on May 3, but was stopped as equipment was needed more urgently elsewhere. Resumed on May 9 and completed to Nome River on May 10.

During spring run off fill at mile 1, Dry Creek bridge, was washed out caused by glaciering condition. Road bed was very soft and muddy and was closed to the public until May 25. Considerable use is made of this road by local residents who have summer camps at Nome River and by the U.S.S.R.& M. Company in their ditch operations.

Maintenance repairs were completed such as placing of gravel in soft areas between mile 1 and 5, plus ditching with motor grader. Maintenance of road with motor grader was done periodically to assure a good surface. At end of season culverts were cleaned and staked, bridges and drifting areas were also staked in preparation for snow removal next spring.

#### Work Accomplished:

- 1. Snow Removal Total 5 miles
- 2. Ditching w/motor grader Total 4 miles
- 3. Maintenance w/motor graders " 24 miles

#### Route 13K: Bessie-Buster

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In cooperation with U.S.S.R.& M. Company snow removal was started on May 11 and completed May 17, to end of branch road paralleling Nome River. Considerable glaciering was encountered at mouth of Dexter Creek which made it necessary to close the road to the public, for the last three miles, until near the end of May.

Further maintenance was continued to improve surface and drainage conditions. Washouts were repaired between mile 6 and 7 and surfacing was placed on soft area at mile 6. Repairs of a minor nature were made to timber bridge at mile 3.

During the season, maintenance was performed with motor graders periodically to assure a good surface. At end of season culverts were cleaned and staked, bridges and drifting areas were also staked in preparation for snow removal next season.

# Work Accomplished:

- 1. Maintenance w/motor graders Total 38.7 miles
- 2. Gravel hauled and placed " 470 c.y.
- 3. Culverts, metal, repaired " 9 units
- 4. Culverts, metal, installed Mile 3, 1-30'x192"x24'
- 5. Bridge repaired, timber, minor. Mile 5, 1 unit.

#### Route 13M: Old Nome Depot

Not used in ARC operations, except for one half of garage space being utilized for housing of vehicles used for transportation to and from new Nome Depot at Satellite Field and City of Nome. Other half of garage and all of equipment storage buildings is being rented by Manson & Osberg, Nome sea wall contractor, for repair and storage accommodations.

#### Route 13M: New Depot (Satellite Field)

All buildings had not been moved in from the Old Hospital Area up to January 1, 1950, so this work was continued until enough buildings had been moved in for depot needs. During the month of January three more 24'x60' quonsets were moved into the area, plus a 16'x16' frame building that was used for gasoline and diesel fuel pump house.

On January 25 a freezing rain caused severe icing conditions on power lines resulting in extensive damage to poles and lines and causing power failure. So as not to close down equipment repair operations, a 40 KW diesel electric power plant was borrowed from the Army Air Force and used for power supply until necessary repairs were made and power resumed.

During the month of January improvements were continued on shop building #5. Rewiring was finally completed and flourescent lights installed over work benches. By April balance of interior had been painted and heat ducts completely installed. Existing work benches were removed, as they were very poorly constructed and inadequate, and com-

pletely rebuilt of heavier lumber in order to support heavy vises. On completion they were then painted. This was requested by District Mechanic Edward Warner. No additional work was accomplished in the shop until after the work season.

Warehouse facilities were of prime importance, for it was very necessary to have these facilities operable before the start of the work season. Severe cold weather and snow prohibited work on these buildings until April. In the meantime, paint shop situated in building #6 was completed.

Work on warehouses 1, 2 and 4 continued in April and by June was completed enough to be used for seasons operations. Work items included the repair of interior, electric wiring, building of shelves and bins, office facilities for property clerk, rebuilding and reinforcing of frant ends with shiplap and providing for wider doors, repair of exterior sheet metal covering and skirting with corrugated sheet metal obtained from U.S.S.R.& M. Company. A continuous 10' loading platform was also constructed using 20' floor panels salvaged from corridors at old Hospital Area.

In addition warehouse 11 to 14 inclusive, used for storage of salvaged parts and materials, were repaired, wired for electricity, leveled and blocked, corrugated sheet metal placed for skirting and an 8 x24 loading platform constructed at front of each.

It had been necessary to increase the number of personnel in order to complete work on the depot in time, so as not to interfere with seasonal operations.

A 20'x60' KD building was acquired from CAA and moved into location from the old quartermaster area. CAA had expressed the desire to dispose of this building, so advantage was taken of the opportunity of getting a building intact rather than assembling a KD building that would have to be taken down at the old hospital area.

Oil dock and loading platform, 25'x100', adjacent to RR tracks was completed. Blacksmith shop, building #9, constructed from panels of KD building removed from hospital area. Side panels were spliced to give additional head room, 10'. Dimensions are 20'x30' and placed on 4"x12" sills, as time did not allow for concrete footings. Floor of gravel. Roundhouse #10 for RR equipment storage - one 16'x36' quonset was brought in from old hospital area and placed in temporary location.

Grading of area was completed on west side and to the rear of warehouses and shop to provide areas for lumber, material and equipment storage. Concrete base was placed for flag pole, however, difficulty in obtaining proper size pipe for fabricating pole hindered completion.

The above mentioned work was completed prior to the start of the work season. Only work done during the work season was the painting

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of buildings as time and weather conditions permitted. Buildings painted were shop building #5; equipment storage building #6; fuel supply building #8; blacksmith building #9 and front of warehouses #1-#2-#4.

Work was resumed on the Depot during the month of October at end of work season.

It was found that additional warehouse facilities were needed because of the necessity of segregating the new and used tools, storing of new supplies and the storing of army surplus. This is in keeping with the original plan of four warehouses for active and live storage. To utilize the existing loading platform and maintain compact, practical storage facilities it was necessary to move one of the existing warehouses, #2, to make room for another 24'x60' quonset (building #3) moved from it's temporary location in another part of the depot area. The major portion of the work, which included interior repairs, rewiring for electricity, interior painting, partitions, placing of storage bins acquired from Air Base, office facilities for property clerk, and storm shed on #3 was completed by mid November.

Extensive repairs were also completed to warehouses 1 to 4 inclusive, such as removal of air vents, caulking of exterior joints with compound, and repair of windows. It was necessary to replace the corrugated sheet metal on building #2 and skirt building #3, and to install heating facilities in building #3 for office and warm storage. Except for minor items this concluded work on warehouses.

A storm shed on south end of shop building #5 was completed and eliminated heavy drifting snow against the inside doors. This is the only entrance used during the winter months and a storm shed was the only solution for keeping the inside doors from icing up and also facilitated the removal of snow from in front of the outside doors. Ninety eight c.y. of gravel was placed to level the approach to the new storm shed.

An area 20'x35' in the northwest corner of shop (#5) was partitioned off to provide space and protection for machine shop equipment acquired by transfer from the Army Air Force. Partition is 8' high, with lower half sheathed with masonite and upper half screened. Wiring and lights for the machine shop were started, but not completed due to urgency of other work.

Regarding security and fire protection, sheet metal covering was placed on walls of welding room and on walls and ceiling of furnace room, building #5.

A storm shed similar to that on shop building was completed on south end of building #6 and for the same reason. Another 16'x36' quonset was moved in from Nome to the area and attached to quonset previously brought in from hospital area for RR equipment storage (building #10). Both quonsets were raised and placed on 12"x12" sills and will be completed next year.

Besides construction and improvement of depot area, general and winter maintenance was carried on during the year and included minor repairs and up keep of buildings, care of utilities and snow removal.

<u>N.B.</u>: It might be worthy to note that most of work done on the New Depot was directly under the supervision and inspection of C.G. Boucher and it was largely through his efforts and initiative, with the cooperation of those under him, that such a fine job was accomplished.

#### Work Accomplished: In reference to grading of area.

Cut and fill w/tractor and dozer 3500 c.y.

" " w/tractor and carryall 3000 c.y.

Gravel, haul and placed (shovel loaded) 1750 c.y.

#### Equipment Repair Program:

Except for minor repairs and overhaul of equipment used for transportation and winter maintenance operations, very little was accomplished until after January 1, 1950. Confusion resulting from renovations being made in the shop building, lumber salvage operations within the building and the transfer of equipment and material from the old depot area, was not conducive toward planning and progress of this program.

#### Miscellaneous:

Two barges of lumber of various dimensions, amounting to 136,080 B.M. and 161 pieces of steel matting, were brought down by Lomen Lighterage Company from North Spit and unloaded at the Nome docks. This is part of surplus items transferred to the Road Commission by the Army Air Force. Transfer of lumber and steel matting from dock to new depot was effected by ARC personnel and equipment when convenient during the summer season.

On November 1, 1950 Marks Air Force Base was closed, but prior to this Nome District Headquarters had been informed that material, supplies and equipment, surplus to the needs of the Air Force would be available for transfer to the Road Commission at Nome. A study was made of district needs both present and for future planning and requests subsequently presented to Juneau Headquarters for approval. As requests were authorized by Army Headquarters, Road Commission personnel removed the items to the district depot at Satellite Field.

Transfers included such items as cement, doors, windows, sheets of black and galvanized iron, small tools, miscellaneous hardware, machine shop equipment and tools. Equipment, comprising pickup, 6x6 cargo and fuel tank trucks, fuel trailer, carryall, dump truck, D8 tractors, motor grader, power shovels, etc.

Inventory of parts, material and supplies was also a major work item and included the placing of items in bins.

File? The in Part of Nome annual Report.

Annual Report of Operations, Year 1950

# Supplement to Equipment Repair Program - Page 15

After January 1, enough repairs had been completed on shop building #5 to allow continuation of repair and overhaul of equipment for the following season's work. Despite delays resulting from renovations still being carried on, program progressed favorably until April. In April a general let down effecting the amount of work accomplished was very noticeable.

Trouble of a personal nature and dissatisfaction with living conditions in Nome effected the attitude of Edward Warner, District Mechanic, and Don Markley, mechanic, toward their respective jobs, causing indifference and friction between them and shop personnel and evidently was the cause of the general let down. Efforts were made to straighten things out, but to no avail and both men resigned as of May 21. This left considerable work still to be done, but through the untiring efforts of Allan G. Doyle, replacement for Warner, decided change was immediately evident in the attitude of personnel and through their cooperation the balance of equipment was repaired sufficiently to carry on for the coming season.

After completion of seasonal work about October 15, all equipment was checked and protected for winter storage.

Frogram was not started until after January 1, 1951 due to lack of personnel, through sickness and annual leave status. Remaining personnel had to be pooled in order to complete work items in order of their priority and need; such as the transfer of surplus equipment and material from the Air Force, completion of warehouse facilities, inventory of stock for cost summary, construction of storm shed in shop, repair to transportation and snow removal equipment, and winter maintenance on Routes 13A and 25D.

Additional personnel could not be hired due to insufficient funds. It is planned to put on additional help March 1, 1951 when new program allotments will then be available. Time element is considered ample for the completion of the repair program prior to the start of the work season in June of 1951.

| g.e. j | Col. Noyes |
|--------|------------|
| 4      | Chf. Engr  |
| ***    | Admin.     |
| 4      | Op'ns      |
| 4      | Engrg      |
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#### Foute 250 - Nome-Wireless

No work performed during the season by ARC forces

#### Route 25D - Center Creek and Branches

This road is used as access road to the New Nome Depot and necessitated winter maintenance. Besides being used by the Road Commission, it also served the needs of the U.S.S.R. & M. Company and was used constantly by the Army Air Force for transportation of fuel from their tank farm at Satellite Field.

Winter maintenance during January and February was reasonably light due to light snow fall and only occasional removal of drifting snow caused by strong winds. During March maintenance was some what heavier caused by frequent wind storms that created drifting conditions and also occasional light snow falls. Ice storm of January 25 kmocked down a number of snow markers which were replaced the following month. Winter maintenance tapered off in April and was negligible.

Due to soft area Mile 1, 399 c.y. of gravel was placed to improve the condition and 488 c.y. of gravel placed to raise several low spots between Mile 3 and 4. To prevent damage to railroad tracks on one side and moonlight water line on the other, ditches were made with motor grader between Mile 3 and 4. One 18" x 24" metal culvert was installed at Mile 1. This concluded repairs and for balance of season only routine maintenance was necessary.

At end of season snow markers were placed from Mile 0.5 to 4.0 in anticipation of winter maintenance. No snow remaval was necessary during month of November but due to dangerous icy contition it was necessary to roughen surface using D8 caterpillar tractors.

During December snow removal operations were resumed. A Sno-Go, on M.R. from Army Air Force and an Adams #512 Motor Grader were used in these operations and proved far more economical and practical than D8 caterpillar tractors used during the first part of 1950. In cooperation with U.S.S.R. & M. Company access road at 1 mile to mining camp was maintained all year, as was access road to tank farm in cooperation with CAA and Army Air Force.

# Work Accomplished

Maintenance with motor graders. Total 57.5 miles. Snow removal, winter maintenance. Total 38 miles. Gravel hauled and placed. Total 887 c.y. Culvert metal, installed. M. 1-1-18" x 24. Ditching. Total 15 miles.

# Route 25 DA - Little Creek Branch

Included in 25D operations.

#### Route 25E - Submarine - Pay streak

As far as can be determined this route is being used and maintained by the Army.

#### Route 25L - Nome City Airfield

In cooperation with local Bush Pilots and Air Transportaion Companies, snow was removed from the north and east end of the field 75' wide and 2000' long on May 4,5,12,13. No further maintenance was done or necessary during the work season.

At the request of William Foster, a member of the Territorial Board of Aviation and local bush pilot, snow drifts on the air field created a hazardous condition and were levelled off using a TD14 Tractor and drag. Work was done by ARC during the month of November and is reimbursable. No further work was necessary until after the first of January.

#### Route 25N - Nome City Streets

No work done during year by ARC forces.

#### Route 26 - Candle - Candle Creek

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By request of Mr. Jack Allen, manager for Havenstrite Mining Company, Chevrolet dump truck was left at Candle for maintenance operations. Truck had not been used during 1949 and it had been planned to transfer it to Deering, for according to Mr. Allen, they had not intended to use it any more, using tractor with carryall instead.

It was reported that the necessary maintenance was carried on to keep the road in shape. Road Commission Chevrolet dump truck and 8° Adams pull grader were used during operations. All work is performed by the Havenstrite Mining Company with funds and authorization received directly from the Territorial Highway Engineers office at Juneau.

# Route 260 - Candle - Kiwalik

No report of any work done.

#### Route 27 - Deering - Inmachuk

This project did not start until August 7 for the simple reason that a foreman capable of handling the job could not be obtained. Finally personnel in Nome was switched around and equipment operator Ray McGinnis was sent to take over. McGinnis arrived in Deering on August 7 but actual work did not start until the 11th during which time crew was hired and old trucks repaired enough to start work.

#### Route 27 - Deering - Inmachuk cont'd

It had been planned previously to transfer the D6 Caterpillar tractor #730 and one Reo dump truck from Nome, and the Chevrolet dump truck from Candle. Change of plans at Candle added one more Reo dump truck from Nome. The Army Transport Service operating at Nome had been contacted earlier but could not accommodate the Road Commission until quite late in the season and no arrangement could be made with Nome or Kotzebue lighterage companies due to previous commitments, so all that could be done was to wait for Army Transport Service.

Transportation of equipment from Nome, including supplies of gas, oil, diesel fuel and lumber was effected by September 1, and although late, this service was greatly appreciated. Loading barge could not beach at Deering, instead it was unloaded at a point three miles northwest of Deering. This was some what inconvenient in view of such a late start, for it took time needed on the road to pick up the equipment and supplies and transfer it to the scene of operations.

Some delay was experienced in the repair of the gravel trap and converting it to take care of the larger angle dozer blade, but on completion, Foreman McGinnis was able to carry on his work of resurfacing. Besides resurfacing, operations included improvement of drainage conditions with ditching both by hand and with tractor and pull grader and the installation of new metal culverts. Most of operations were confined between mile 0 and 15½ with routine maintenance enough to keep road open as far as mile 22. Due to freeze up and bad weather, operations were suspended on October 7. Despite short season it was felt, by all concerned, that more work had been accomplished than had been during the previous season. Proper supervision and equipment is evidently the answer.

During the month of September another shipment of gas, diesel fuel and lumber was delivered to Deering on the same location.

After work had stopped on road, this material and all other stored at Deering proper was transported and stored along with equipment at Casa De Paga Mining Camp, Mile 19 with the assurance of Manager, Don Stewart, that everything would be protected along with their own property. Mr. Stewart, as manager of the largest mining company at Deering, was very satisfied with progress this season and felt sure that a much better showing could be expected next season for now we are set up for it.

Although reception was only fair, radio contact was maintained with Immachuk station KYMB - frequency 5137.5 through the courtesy of Don Stewart. This was appreciated and was a great help. Foreman McGinnis on completion of inventory was ready to leave Deering on October 11 but because of extreme bad weather conditions, transportation back to Nome was not available until October 22.

# Route 27 - Deering - Inmachuk cont'd.

#### Work Accomplished

Maintenance with tractor and pull grader. Total 42 miles.

Gravel hauled and placed. (Trap loaded) Total 2328 c.y.

Ditching. Total 15 miles.

Culverts, metal, new. Mile 3, 1-12" x 12', Mile 7, 1-12" x 12', Mile 8.5

1-12" x 12', Mile 15, 1-12" x 12', Mile 15, 1-12"x 20'.

Total 5 units - 68 L.F.

# Route 67 - Nome - Teller

The small ferries at Penny and Cripple were not operated again this sesson. No reports were received of any use being made of this route nor were any requests forthcoming for a continuation or resumption of this service.

# Route 67B - Teller - Bluestone

Work on this project officially started July 22 with the repair of washouts, cleaning of ditches and the cleaning and repair of culverts. Earlier in the month additional equipment comprising of #40 caterpillar tractor #699 and one Reo dump truck was barged to Teller by the Lomen Lighterage Company. Tractor was not used immediately as no operator was available in Teller. One finally was sent from Nome. In the meantime maintenance was carried on by hand as heretofore.

This additional equipment was sent to Teller with the hope of completing the surfacing of the last two miles of road 14 and 15 so as to be useable all the way to mining operations, also to increase the amount of maintenance work accomplished that was necessary on the balance of the road. It was unfortunate that tractor broke down almost as soon as it started to work, necessitating extensive repairs.

It was necessary to construct two gravel traps, one at mile  $13\frac{1}{2}$  and one at mile  $14\frac{1}{2}$ . Timber used had been hauled from North Spit during the winter by Foreman Harry Bourn. Until tractor was repaired maintenance continued such as spot gravelling and the cleaning of ditches and culverts. On completion of the gravel traps, gravelling was started at mile 14.

However, due to the delay in constructing the traps, unsatisfactory performance of the tractor and considerable wet weather, not much was accomplished in regards to surfacing at mile 14 and 15. Maintenance repairs during the season were adequate to keep the road passable but as far as improvement was concerned, results were unsatisfactory.

Anticipated increased activity did not materialize, so use of road was very limited. Season was officially closed on October 9 with the storing of equipment at Teller and the inventory of all ARC property.

# Route 67B - Teller -Bluestone cont'd

#### Work Accomplished

Gravel - Trap 369 c.y. Gravel - Hand 386 c.y.

Culverts new, installed - Mile 13 - 1-12" x 16; Mile 9 - 1-12" x 16;. Total 2 Units - 32 L.F.

Maintenance with pull grader and tractor. Total 29 miles. Ditching with tractor and pullgrader. Total 3 miles. Ditching by hand. Total 1 mile.

# Route 67E - Teller Airfield

No work done by ARC personnel.

# Route 68 - Flagging Trails

In cooperation with native villages in outlying areas the local winter trails were temporarily staked for travel between villages and to hunting and fishing grounds. In remote cases trails are still used for mail by dog team. This is considered a public service as well as a safe guard for those who use the trails if caught out in bad weather.

| Temporary | staking | - Vicinity | of | Teller      | 37  | Miles |
|-----------|---------|------------|----|-------------|-----|-------|
| ~ 0       | •       | 11         | 11 | Golovin     | 18  | 11    |
|           |         | tt         | 11 | Kotzebue    | 34  | tt    |
|           |         | 11         | 11 | Mary's      | -   |       |
|           |         |            |    | Igloo       | 33  | 11    |
|           |         | . 11       | 11 | St. Michael | 5   | 11    |
|           |         | tt         | Ħ  | Cape Nome   | 1.5 | 11    |
|           |         | . If       | #  | Deering     | 14  | tt .  |
|           |         |            |    | ·           |     |       |

Total 142.5 Miles

#### Route 90B - Shelter Cabins

Placing of firewood - Metlatavik and Sinazat Cabins. Reasons for shelter cabins are pretty much the same as for trails.

#### Route 89A - Seward - Peninsula Tram

A small crew of four men started work on May 16. Track at mile 1 and between mile 3 and 4 which had been damaged in snow removal operations on Route 25D were repaired. Maintenance repairs were continued such as repair of minor breaks in tracks, checking of timber bridges, clearing and cleaning of road crossings and removal of snow drifts by hand as far as mile 5.

To facilitate the handling of Road Commission material and supplies for tram maintenance and the Kougarok Road, a new "Y" and spur were completed at the New Home Depot by June 14. Considerable time had been spent on this operation since 80% of material had to be moved from the U.S.S.R. & M. Company "Y" by request and permission, at Little Creek, and unused portions of the track extending to the Old Standard Oil Docks at the east end of Home. Salvaged material amounted to 2760' of rail, 4 frogs and 4 switches. New ties used were 700.

Railroad track layed - main line extension - 144'

spur - 481'

"Y" - 755'

Total 1380'

On June 6 Foreman Walt Taylor inspected track as far as mile 17 which was as far as he could go due to snow drift. On inspection it was found that trestle #19 at mile 13 was unsafe and would have to be repaired before heavy vehicles could use it. This was accomplished by June 23.

Crew cars had been moved to mile 6 siding on June 16 and used as a base of operations. At mile  $5\frac{1}{2}$  section of track was relocated to eliminate several bad curves. 200° of grade was prepared with tractor with dozer. Track removed and replaced amounted to 250°. Fill required 200 c.y. After repairs were completed to trestle #19 crew returned to mile 6 and continued maintenance repairs, moving crew cars as the work progressed.

On June 28, snowdrift 275' long and 3' deep at mile 33' was removed by hand. Crew cars were moved to mile 38 siding opposite Salmon Lake and remained here until grass burning operations were completed.

One of the worst handicaps on the track is the grass which grows so high and think that it makes the track invisible and function just about nil. This condition exists throughout the entire length of the Railroad but in varying degrees with the worst area being from mile 52½ (Iron Creek) to Bunker Hill mile 80½. Using a weed burner mounted on a flat car and pushed by the gasoline locomotive, some success had been achieved in control of this condition as far as Iron Creek. Burning of the grass is a seasonal operation and can be very hazardous due to the track being layed on the tundra. Several tundra fires were started but no damage was done for fires were not widespread. Trestle that burned, #61 at mile 33, Muggut Creek was evidently the result of a piece of burning carbon that dropped unnoticed on top of a cap when crossing.

# Route 89A - Seward - Peninsula Tram Cont'd

Foreman Taylor was unaware of this until the following day when he was returning to Nome for a repair part for the locomotive. This trestle is about 30' high and the whole upper portion had been burned. This happened on July 5th and repairs were completed by the 9th. Work speeder was slightly damaged by fire, evidently caused by grease and oil catching fire during the burning operation.

On completion of trestle repair, burning was continued as far as mile 54 and was stopped there until proper weather conditions allowed resumption. Crew and cars were then moved to Mile 47 continuing repairs as they went along. Extensive repairs were made between mile 47 and 52 and on completion cars were moved to siding at Iron Creek mile 52.

On the 27th of July crew went through to Burker Hill mile 80½ making minor repairs both going and on the return on the 29th. First load of freight by the Kougarok Freight and Mining Company went through to Iron Creek on the 29th of July. Tram was opened all the way by the 1st of August but grass conditions were so bad that burning operations had to be resumed on the 8th of August. From previous experience it was realized that burning could only be done during misty or light rain conditions and fortunately this weather prevailed until operation was completed as far as Bunker Hill on August 12.

It proved conclusively that burning should only be done under these circumstances for a decided improvement was noticed immediately and without the hazard of fires. The grass withered to a rusty color and gave the impression of a long rusty trail. Except for the light rain occuring between August 8 and 12, weather had been exceptionally good and track was considered good for hauling freight. Heavy rain started on August 18, about the time freight was being hauled and it was not long before the track was almost impassable even though restrictions had been placed on load limits.

As rain continued track became so bad that further use was impossible and dangerous until repairs could be made. The Corp of Engineers were very much concerned as they were planning to bring back all their equipment and material via tram that had been used in their operations in the Kougarok. In cooperation, Major Slater, Commanding Officer, assigned 15 men to aid us in making the necessary repairs, starting August 28. Enroute to mile 54 the Engineer contingent under the able supervision of Glen Snyder, locomotive operator, made sufficient repairs so that track was again considered safe at least that far.

A tent camp was set up at mile 54 and used as a base of operations. All material and supplies were transported from Nome by ARC locomotive and freight cars. Extensive repairs were carried on between mile 54 and 80% despite very adverse weather conditions. The necessary repairs had been completed and track was considered safe for continuance of traffic.

The men of the 30th EBTB, Corp of Engineers were returned to their Nome Headquarters on September 11. Major Slater was duly notified

# Route 89A - Seward - Peninsula Tram Cont'd

and he was very gratified to be able to move his outfit back to Nome from the Kougarok in time to beat the deadline of September 20 at which time they were to return stateside.

Inspection made from Bunker Hill to Nome on September 10 with Chief Engineer Ghiglione and Chief of Operations William Niemi showed track to be in fair shape and as safe as it ever had been for the continuation of freight hauling. Work of maintenance continued on the crews return to Nome. Project was officially closed on October 7 with the storing of all rolling stock at the Nome Depot and the checking in of all tools and provisions.

As fer as could be ascertained the only use made of track after this date was by local hunters and by the U.S.S.R. & M. Company in closing up their ditch camps.

#### Work Accomplished

New track layed - 1470 Track raised and leveled - 8725! Ties placed, new - 3605 units Ties placed, salvaged - 135 units Switches repaired - 4 units Broken rails replaced - 300' Snow removal, drifts - 575' Total Brush cut - 2510! Grass burned - 66 miles Wooden culvert repair - 19 units Bridge repairs, minor - 5 units Trestle repaired, major #61 Mile 33 Length 155! 11 11 #66 38 241 11 11 11 13景 #19 731 11 #84 11 221 Bridge rebuilt 49 #85 49 321

Fill with dozer 200 c.y.

#### Route 89AB: Bunker Hill-Taylor & Branches

Project officially started on June 14, with preparations being made for opening Quartz Creek Camp. All personnel, tools and supplies, which included groceries for a good portion of the season, were flown in using the facilities of Munz Air Service.

Foreman originally slated to start this job could not be found at time of departure from Nome and when found, two days later, was still too intoxicated to be of any use. Equipment operator Ray McGinnis was sent up on the 15th to take over temporarily and returned to Nome on the 23rd, having done a very creditable job when it was most urgently needed. His replacement Joe Mickel then took over and as proved later we were very fortunate in obtaining such a conscientious and capable foreman.

Considerable repairs were needed on the equipment especially the trucks, but by the 17th of June enough equipment had been repaired to start maintenance work between mile 0 and 18 and on Coffee Creek Branch.

Quartz Creek air field, mile 14, was graded with motor graders at the request of bush pilots. In the beginning of the season this was used by ARC as a supply depot. Also a small shelter was erected by ARC forces to be used by ARC and local miners for storage of air freight until picked up.

Resurfacing of Quartz Creek branch of about  $1\frac{1}{2}$  miles was completed along with maintenance repairs to Coffee Creek branch and Bunker Hill-Taylor road, mile 0 to 18.

As repairs continued operations were too far away from base camp at mile 10, so in order to eliminate loss of time from excessive travel a temporary camp, using tents and frames on go-devils (skids) was set up at mile 24 and used until operations were concluded in this vicinity. Before temporary camp was set up at mile 24, Bunker Hill ferry and rowboats used on the Kuzitrin River, were painted and then placed in operation on July 21 in anticipation of use when tram was opened.

Maintenance repairs from mile 0 to 21 and on branches included repair of washouts, resurfacing soft areas, regrading low spots, cleaning and repair of culverts, ditching and maintenance of road with motor grader. The work that was carried on from mile 21 to Taylor, mile  $40\frac{1}{4}$ , could hardly be termed maintenance since it involved placing of gravel surfacing on original subgrade.

Good material was/very scarse commodity and constant prospecting was necessary to find enough of it. All material found and used during the dry season did not turn out satisfactorily as proved later under heavy rain conditions. Some however, held up very well under all conditions and knowing the sourse and location of borrow pit the better material will be used next season to resurface the questionable areas.

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Exceptionally good progress was being made as long as weather remained dry and warm and lasted until August 18, the start of the rainy season. Time would not allow the entire road surface to be gravelled so the center only, average width of 141, was being covered with enough material so as to make the road passable for freighting.

During the course of operations extensive ditching and grading of subgrade was accomplished using both motor grader and tractor and pull grader. Culverts were placed where necessary. As gravel operations progressed camp was again moved and placed at mile 32, called Black Hill, on August 20 and 21. Using tractor and pull grader and motor grader an emergency landing field 100'x1200' was graded on top of Black Hill in rear of camp and was used exclusively by ARC in receiving supplies flown in from Nome. Time saved was considerable for the nearest accessible field was at Quartz Creek mile 14.

Every effort was made to get to Taylor by the end of the season and this was accomplished despite wet weather conditions and incessant breakdown of trucks. The old trucks being used were getting to be a problem and to ease the situation two GMC 4x4 dump trucks were sent up via tram near the end of the season.

On inspection trip of September 10, accompanied by Chief Engineer Chiglione and Chief of Operations William Niemi, it was very evident under wet weather conditions that suitable material for surfacing presented a problem. Due to it's scarsity and obtained under dry conditions, it was trial and error and some of material did not hold up too well. Observing the difference and knowing the location of the good borrow it will be possible to take advantage of this knowledge and resurface the questionable areas next season.

However, this is not to be construed as work wasted for placing this material gave some bottom and the road at least was passable though rough especially between mile 21 and 39. Previous to this the road had been impassable under the same conditions. Road from mile 21 back to 0 was also rough caused by constant travel by Corp of Engineers in their operations, and during an interval of dry weather shortly after the inspection trip the entire section was graded.

The Bunker Hill-Taylor Road had never been completed to Taylor for a gap was left about 1 mile in length. Some preliminary work had been done by pushing up tundra for the subgrade, but 1/4 of a mile had been left untouched. Before the end of season this gap had been closed and existing tundra piles levelled off so that shovel could be moved to Taylor where it was possible to obtain good gravel for surfacing.

Due to a continuation of bad weather Foreman Mickel was not able to complete gravel operations, but at least the road was passable all the way through for freight hauling. In regards to the last mile of the road it was very evident from surrounding settlement where tundra had been stripped that glacier ice existed and to a considerable depth.

Work done by Road Commission this season was of a temporary nature and for a permanent location and road bed it is recommended that present road be relocated. This is possible for better ground exists on west side of road, starting at about mile 39 and at about a 45° angle in the direction of Taylor. The possibilities should be determined to assure a permanent road bed.

Another note of interest is that in some instances road location was moved to tundra piles adjacent to the road because of settlement, excessive erosion or soft material on original location. This was necessary from mile 20 to 22 and from mile 28 to 31.

At end of season shovel was left at Taylor and camp buildings at mile 32 were repaired and protected for winter in anticipation of continuation of work from this end. Actual work on road was completed on September 28. From this date until the closing date of October 6, time was spent in closing operations. All oil, material and supplies transported from Nome via tram for next seasons operations were hauled from Bunker Hill to Quartz Creek camp, mile 10, and Black Hill camp, mile 32. On completion of this haul, the Bunker Hill ferry was removed from the Kuzitrin River and placed on ways. By the time this was completed high water from heavy rains would not permit crossing the river with the TD18 tractor, used for hauling out the ferry, so it had to be left there.

Facilities for storing supplies, shop equipment and tools were completed at the Black Hill camp and buildings at Bunker Hill and Quartz Creek camp were checked and protected for winter. Also a complete inventory was made of all ARC property.

N.B. - As the Road Commission camp at Quartz Creek mile 10 was not being used in maintenance operations after August 1, permission was granted to the Corp of Engineers, the 30th Engineer Base Topographic Battalion, to use this camp during their survey operations in the Kougarok. This was a great aid to them and was greatly appreciated. Camp was vacated by September and by agreement everything was left in A-1 condition.

Radio communication was maintained by ARC between district headquarters and camp with satisfactory results in most instances.

As far as could be ascertained it is doubtful if over 50 ton of freight was moved over this road by local miners.

#### Work Accomplished:

Gravel hauled and placed - 11,030 c.y.

Maintenance road with motor graders - Total 84 miles

" " tractor and pull grader - " 28 miles

Ditching - Total 18 miles

Culverts, metal: Mile 26, 2-16"x20' Mile 29, 3-18"x20'

" 1-16"x16' " 30, 1-18"x20'

" 1-12"x16' " 40½, 2-18"x15'

Total 10 units, 182'.

# Summation of Major Work Items:

| Maintenance w/motor grader Maintenance w/tractor and pull grader Maintenance w/maintainer Maintenance w/dozer Gravel hauled and placed (shovel loaded) Gravel hauled and placed (trap loaded) Gravel hauled and placed (hand loaded) Gravel hauled and placed w/carryall Clay and rock hauled (shovel loaded) Sod hauled and placed (shovel loaded) Cut, with dozer Fill, with dozer Cut and fill with carryall Ditching Culverts, metal, new installed Culverts, metal, new extended Culverts, metal, rebuilt and repaired Culverts, metal repaired Culverts, wood, repaired Bridges, timber, small, minor repair Trestles, timber, rebuilt | 56.2<br>633.1<br>186<br>74<br>11<br>57172<br>2697<br>386<br>1600<br>1106<br>300<br>21885<br>23135<br>3160<br>60.5<br>1062<br>3<br>90<br>186<br>19 | miles miles miles miles miles c.y. c.y. c.y. c.y. c.y. c.y. c.y. c.y |
|--|---|--|
| Trestles, timber, major repair   | 3   | units 252 ft.  |
| Trail Staking, temporary Shelter Cabins, firewood supplied   | 128 <b>.</b> 5<br>2   | miles<br>units   |
| Tram:  | 11/70   | £+   |
| New track layed Track raised and leveled   | 1470<br>8725  | feet<br>feet   |
| Ties replaced, new   | 360 <b>5</b>  | units  |
| Ties replaced, salvage   | 135   | units  |
| Relocation of track  | 250   | feet   |
| Broken rail replaced   | 300   | feet   |
| Fill w/dozer   | 200   | c.y.   |
| Switches repaired  | 4   | units  |
| Snow removal   | <i>5</i> 7 <i>5</i>   | feet   |
| Brush cut  | 2510  | feet   |
| Grass burned   | 66.5  | miles  |
| New siding, Nome Depot   | 481   | feet   |
| "Y" installed, Nome Depot  | 755   | feet   |
| Switches installed, Nome Depot Main line extension, Nome Depot   | 3<br>144  | units<br>feet  |
|  | <b></b> 1° T  |  |

Yours truly,

J. D. Hudert District Engineer

# UNITED STATES DEPARTMENT OF THE INTERIOR

ALASKA ROAD COMMISSION

JUNEAU, ALASKA

Nome District

January 16, 1950

Mr. Ike P. Taylor Chief Engineer Alaska Road Commission Juneau, Alaska

Subject: Annual Report - Year 1949

Dear Mr. Taylor:

### General Maintenance

#### Route 8: Nome-Council

During the winter of 1948-49, the depth of snow was considerably more than in previous years, with strong prevailing north east winds causing excessive drifting, which necessitated much more snow removal than in previous years. According to U.S. Weather Bureau statistics the total snow fall for the year was 280.6" and the amount of snow on the ground in March was a maximum of 74". This would be considered a record as compared to the maximum on the ground in March 1932 of 47".

The work season started with snow removal, mile 0 to 16.5 including two miles of side road to A.C.S. installation on May 16 and concluded on June 3. Total snow removal in the area was 18.5 miles. Equipment used in this operation were two D8 Cateroillar tractors W/L dozers, the use of one donated by A.C.S.

During the period of the spring break up when snow is soft and wet it is impossible for A.C.S. and C.A.A. to use their snow going equipment as a means of transportation to their respective receiver sites of Cape Nome Bluff. The lack of transportation facilities could cause serious complications in an emergency such as a break down of generator or receiving equipment, injury to personnel or possible shortage of food and fuel if break up is prolonged; so in respect to the public welfare and in cooperation with the agencies involved early opening of this road is considered justified.

Continued cold weather during the spring break up hindered operations due to slow frost reactions. Numerous soft areas occured and in order to maintain traffic considerable gravel had to be hauled and placed between mile 1 and 13. The longest stretch gravel was mile 11 to 13, a total of two miles.

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Drainage conditions were improved by the cleaning of ditches, extension of culverts and the placement of additional culverts. At mile 2, culverts were cleared of glacier ice using steam.

Small slides between mile 13 and 15 were removed after the spring break up, which operation was repeated on several occasions during the season. Caused by almost continuous rainy weather.

Due to continuous heavy hauling mimerous sand spots occured in the road grade between mile 18 and 24 on the spit. These areas were stabilized by covering with a layer of clay obtained from the only source at mile 15 and then covered with a light layer of pea gravel obtained locally. Continuous rain aggravated this condition as well as causing mid areas between mile 24 and 29. In most cases this mud condition was eliminated by placing 3" or 4" of pea gravel as a stabilizing agent. After these operations were performed, the surface was then graded with a D6 tractor and maintainer.

Maintenance work was interrupted by the storm of August tenth which did considerable damage to the road at mile  $17\frac{1}{2}$ , washing out about 1000'. Road was replaced in seven days, during which time traffic was maintained by using the beach, aided by a D6 Caterpillar tractor. At this point about 100' of beach separates the water line from the road. In fact the road is now part of the beach. In making repairs just enough fill was placed to maintain traffic, but a raise in grade of about 2' is planned for next season to eliminate, at least, washouts during slight storms.

Minor repairs were made to section of road from mile 35 to 48, which were adequate to keep road in fair shape for most of the season. More extensive repairs were made by the crew that had been working on the Council end on their return to Nome at the end of the season. Inspection after this was done showed a decided improvement and should put the road in good shape for next season.

Routine maintenance of road surface was done often enough with motor graders to assure a satisfactory condition and despite the continuous wet weather.

Condition of road between mile 18 and 34 was decidedly rough until repairs were made and surface graded with tractor and maintainer. During latter part of season condition of road was good enough for all kinds of traffic including passenger cars.

Ferry service was resumed at Safety, mile 21, on June 21st and at Solomon on June 20th. Old ferry was used at Solomon until June 28, at which time it was replaced by converted Army steel barge. Conversion of this steel barge entailed considerable work such as: cleaning inside and outside, repair of leaks, removal of obstacles on deck and the placing of timber decking, rails, ramps and hoist and cables for ramps.

Ferries were in constant service all season, except for minor difficulties, and use of these facilities which was much more than previous years was greatly appreciated both by the public and mining operators. Service discontinued as of November 2, 1949.

For the benefit and safety of the public, 360' of guard rail construction was completed on the Nome River Bridge mile 4. Guard rails were attached to bridge by welding brackets on girders, using 2" x 8" timber as rails.

## Snow Removal: Total 18.5 miles

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Maintenance Road: With motor grader - Total 108 miles
With tractor & pull grader- Total 62 miles
With tractor & maintainer - Total 24 miles
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# Repair of Road Surfacing:

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Gravel hauled, mile 1 to 13 - 3489 c.y.

" " 33 to 47 - 1308 c.y.

Clay " " 18½ to 23 - 569 c.y.

Pea Gravel " " 18½ to 25 - 562 c.y.

Storm damage, clay & rock " " 17½ - 750 c.y.
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#### Metal Culverts - New Installed:

| Mile 8 -        | 1-15"x20'          |             |            |
|-----------------|--------------------|-------------|------------|
| " 9 -           | 1-15"x20'          | Total Units | <b>-</b> 9 |
| " 10 -          | 1-15"x201          | Total L.F   | - 18Ó'     |
| " 10.8 <u>-</u> | 1-12"x20'          |             |            |
| " 10.9-         | 2-12"x201          |             |            |
| " 11.1-         | 1-15"x20'          |             |            |
| " 11.5-         | 1-24"x20'          |             |            |
| " 13 -          | $1-15^{11}x20^{1}$ |             |            |

#### Metal Culverts - Extended

" All Assessment

Total Units - 6
Total L.F. - 36

# Route 8: Nome-Council (Mile 47 to 77)

#### Construction and Improvement

As soon as weather would permit crew was established at East Fork camp at mile 47, on July 5, and operated out of this camp until July 21.

Snow removal was started on July 11, at mile 55, and was completed to mile 59 by July 19. Drifted areas that were removed totaled about 8000', ranging in depth from 2' to 15'. It was necessary to open the road as quickly as possible so that base of operations could be transferred to mile 71 where the most important phase of the work was. This move was made on July 21 and a tent camp for 18 men established, using the location and tent frames of the previous season.

Unfortunately, unusual high water during the spring break up had washed away most of the tent frames and skids. All, except one, were recovered down stream intact and returned to location

Work was continued on closing the gap between mile 72.0 and Council mile 77. Cold, wet weather retarded frost action. Consequently road bed never did dry up which made slow going. This delayed frost action together with the excessive wet weather encountered during most of the season hindered operations exceedingly and progress made was slow and tedious.

Because of above conditions the fill placed to mile 72 last season would not hold up under constant traffic and resurfacing was done continually using gravel from Fox River. Borrow pits at mile 71.5 and 72.0 which were composed of schist and clay could not be used because of the wet weather. This necessitated using gravel from Fox River, in the vicinity of mile 71. Gravel was obtained from river bars and had to be stock piled with TD-18 tractor w/dozer to make material available for 15B shovel and trucks.

The flats extending from Fox River to Council is nothing but four miles of seemingly bottomless swamp that is almost impassable during the summer months and especially so when a wet season is encountered.

The old road across the flats was originally corduroyed with old RR ties, topped with a layer of gravel and proved adequate until heavy freighting equipment caused breaks and uneven settlement. A great portion of this old road was intact, although settled out of sight, and was about the only place where we could get a refusal. Therefore this location is being followed and enough gravel placed to get through on maintaining an average width of about 14. Gravel turnouts were maintained where practicable, but timber ramps were used later to save time and material. Up to August 30, the road was complete as far as mile 73.5

On August 30, work was suspended because of lack of funds. Trucks and some personnel were returned to Nome as per instructions, but camp was still maintained pending further Juneau action. Public opinion was aroused, especially the Council miners, and because of this and the justification of carrying on the project work was resumed on September 5th.

The shut down was costly because of loss of about the only good weather we had. However, it is doubtful if it would have affected the outcome, for as work resumed so did the bad weather and after a decided struggle and realizing that it would be impossible to close the gap of even 1.2 miles to Bear Creek, on September 16, crew reversed operations and started working back toward Nome. As it stands the road across the Council flats is completed as far as mile 73.9, leaving 3.1 miles to get to Council.

Despite the fact that considerable work has to be done between mile 73.9 and 47, it was also imperative and about time anyway to be moving back before being caught by snow and freezing which usually occurs around the 1st of October.

Drainage conditions were improved by ditching both by hand and oull grader and the installment of new metal culverts.

Extensive repairs were made to existing locations and road grades. The following relocations were opened up, and although not complete as to

drainage and surfacing, are passable. Work was done with L dozers and graded with a pull grader, involved side hill construction in most instances, and material encountered seemed to be very good: Relocations mile 46.7 to mile 48.7 total of two miles; mile 54.0 to 55.6, total 1.6 miles; mile 57.4 to 58.8, total 1.4 miles and mile 69.5 to 71.0, total 1.5 miles.

Starting in August freight was hauled from Solomon to mile 71.5 where it was stored for freighting after the freeze up or early spring. Evidence of some freighting being done to Council after freeze up was visible on inspection trip October 6.

Freighting from Solomon continued until October 11, after which travel would have been impossible with trucks due to over flow and glaciering in Fox River.

Season's work on the Solomon-Council end terminated on September 30th.

Snow Removal: Total 8000'

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Gravel Hauled and Placed, involving 1.9 mile extension of road and resurfacing of 1.0 mile: 10,550 c.y.

Metal Culverts Installed, New:

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Mile 33 - 1-13"x18"-20' Mile 59 - 1-13"x18"-20' " 71 - 3-18"x20' " 73 - 1-36"x22' " 73 - 1-13"x18"-20' " 73 - 1-36"x22' " 73.5 - 1-13"x18"-20' " 73.7 - 1-36"x24'
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Total Units 14
Total length 282

Relocations: Mile 46.7 to 48.7 - Total 2.0 mile.

Cut with dozer 6450 c.y. - Fill with dozer 3300 c.y.

Mile 54.0 to 55.6 - Total 1.6 miles. Cut with dozers - 14,200 c.y.

Mile 57.4 to 58.8 - Total 1.4 miles Cut with dozers - 3200 c.y.

Mile 69.5 to 71.0 Cut: with dozers - 12,800 c.y.

Notes of Interest:

Communications were maintained by radio and were for the most part successful. A 25 KW portable set, battery operated, was used with call letters KVZH-2 using a frequency of 5195.

Freight service was maintained between Nome and camps with fuel with as the main commodity. An average of 2 trips weekly was the schedule, using a G.M.C. 6 x 6 flat bed.

Considerable improvement work had been done by the Nome sea wall contractor prior to his hauling of rock to Nome from Quarry at mile  $13\frac{1}{2}$  (Cape Nome Bluff). Numerous turnouts were added facilitating passing of trucks; bridge reinforced at Golden Gate Creek, mile  $12\frac{1}{2}$ , fill placed between and to elevation of decks of bridges at Hastings Creek and surfacing where needed. Hauling of rock started about the first part of November and has been almost continuous up to January 1, 1950.

Except for slight settlement road bed is in good shape and as yet no bad effects are noticeable on Nome River Bridge.

#### Route 8 Survey: Nome-Solomon

On August 1, 1949, the Nome-Solomon survey, Route 8, was at a point two miles from the begining of the project and was completed on August 27, 1949; tying into the previous survey made from Nome to the Nome River bridge during the month of June 1949.

The project started with Station 0/00.00 at a point just North of Penny Creek (about six miles North of Solomon) and ended at Station 1815/89.5 at the Nome River bridge, a total length of 34.392 miles, including distances over rivers to be spanned by bridges.

The previous survey from Nome to the Nome River bridge was 4.186 miles, making a total survey length between Nome and Solomon of 38.578 miles.

The route 8 project in general followed a course approximately five miles North of the coast line, and was entirely in open country, thereby permitting a rapid completion of the project since there were no obstacles of terrain to retard progress such as are usually encountered in broken and wooded country. Brush was encountered in a few spots, and especially in the vicinity of rivers and creeks; however, it caused no noticeable delay as the dozer-tractor was utilized for clearing sufficiently to run the survey line through.

The ground throughout is tundra with frost encountered at depths varying from one foot to several feet and the soil varried from a soft, swamp-like material to a firm gravel, and in a few instances was composed of broken shale in pieces up to two feet in diameter. Almost throughout the project gravel could be found under the tundra. There are, of course, many places where the ground is soft, and will require 100% fill. All creeks and rivers have gravel bottoms.

The party of eight, including a tractor operator and cook, were housed in two wannigans. One serving as a kitchen and sleeping two men while the other served as sleeping quarters for six men.

Sufficient stove oil, fuel oil, lubricants, laths (used for stakes), hubs and other supplies were taken with the survey party and carried on a go-devil sled. Canned foods, sugar, flour and other foodstuffs were carried on a rack built on top of the kitchen wannigan. Fresh meat and vegetables

were supplied weekly by having them dropped from an airplane; an arrangement that served very satisfactorily. Radio communication was maintained-daily-weather and atmospheric conditions permitting between Road Commission head-quarters in Nome and the camps.

Route 8: Nome-Council (Location Survey - Existing Roads)

On Tuesday June 7, 1949 a traverse of the existing road was begun starting at the intersection of Front and Steadman streets in the city of Nome. This survey was completed as far as mile 10 when the party was required for other work, i.e. the location of the new Nome depot at Moonlight Springs and the Golovin-White Mountain and Solomon-Nome surveys. The party returned to the Route 8 Survey on Monday August 28, 1949 and continued the survey to station 2165/85.2. This station coincides with Station 0/00 of the Solomon Nome survey.

The party operated out of Nome until mile 28 was reached and from that time until termination of the survey were based at the Solomon road house at mile 35.

The existing road was found to be in fair condition as far as mile  $17\frac{1}{2}$  where the center of the road is only  $100^{\circ}$  from the beach line and scarcely  $10^{\circ}$  above mean high water level. Wave action during storms has washed this section out several times. From  $17\frac{1}{2}$  mile to mile 35 at Solomon the road is on sandy soil and very soft in wet weather. From mile 35 to mile 40 where the survey was terminated the road was in fair condition.

Bench marks were established and angle points referenced for the purpose of possible future relocation.

The survey was terminated and the party disbanded on September 26, 1949, upon the temporary transfer to the Fairbanks district of Wilson, Templeton and Boucher.

Route 8D: Council-Ophir

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Road was passable although no maintenance work was done by A.R.C. forces or by miners.

Route 8H: Casa-de-Paga

Road surface maintained by tractor and pull grader, mile 0 to 7, making a total of 7 miles. No further work was necessary, as road remained passable during season, for the little use that was made of it by miners.

Route 13A: Nome-Bessie

Snow removal was started on May 16 and completed May 21, from mile 0 to 4.5, making a total of 4.5 miles. Serious drifting areas are encountered on this route caused by large buildings located on the east side of road.

Additional work was done at Bourbon Creek, mile 2, completing grade over 6' arch culvert placed last season; gravel hauled and placed totaled 260 c.y.

Maintenance of surface was satisfactorily done with motor graders. Because of excessive wet weather, the first two miles would accumulate numerous chuck holes and had to be scarifyed before grading. Maintenance with motor graders, total 54 miles.

# Route 13B: Bessie-Snake River

Prior to May 26 snow removal had been done by U.S.S.R.&M. Co., mile 0 to 3 for a total of 3 miles. In cooperation with the Mining Company and Army Map Service, snow removal was continued by A.R.C. forces augmented by tractor and operator from the Army, starting May 26 at mile 3 and concluding at mile 19.5 on June 10. Drifting areas were exceptionally long and deep. This operation was mainly in cooperation with Army Map Service for early establishment of a base camp at mile 19.5 for their survey work.

Routine maintenance was carried on such as: repairing of washouts, soft spots, chuck holes, small bridges, ditching with motor grader, installation of new culverts and maintenance of road surface with motor grader.

End of season, culvert and bridges checked and snow markers replaced to mile 9.0.

Snow Removal: 19.5 miles, total

E. 3. 45 ×

1.00

Maintenance Road, with motor graders: 24 miles, total

Bridge Repairs: Mile 13½, deck replaced, length 16'.

" 14½, " " 16'.

Ditching: Between mile 1 and 15, total of 8 miles.

Average 1 c.f./1' - 1570 c.y.

Gravel Hauled: Road repair - 785 c.y.

Culverts, Metal, Installed: Total units 2
Total length 40

#### Route 13C: Bessie-Sunset

Snow removal started on May 23 and concluded on May 25. Mile 0 to 4.2, making a total of 4.2 miles.

The only reason for opening road early is for inspection of Snake River Bridge, regarding ice jams. Ice started jamming on May 29, continuing to June 3, and dynamite was used repeatedly to break up the jam and reduce the pressure.

Routine maintenance consisted of repairing soft spots in road, mile 4, gravel used 36 c.y; maintenance road with motor grader, totaled 8 miles. At end of season bridges and culverts as far as mile 4.0 were checked and snow markers replaced.

#### Route 13F: Bessie-Osborne

In cooperation with U.S.S.R.&M. Company snow removal was started on May 27 and concluded on May 31, between mile 0 and 5.7 for a total distance of 4.5 miles.

Routine maintenance consisted of: repair of washouts, soft areas, resurfacing, cleaning of ditches and culverts, bridge repair, installation of metal culverts, maintenance with motor grader.

Snow Removal: Total 4.5 miles

# Gravel Hauled and Placed:

For chuck holes etc. between mile 1 & 4.5 - 305 c.y.

For resurfacing between mile 2 & 3 -1215 c.y

Total 1520 c.y

Maintenance, with motor grader: Total 12 miles

Timber Bridge Repaired: Mile  $1\frac{1}{2}$ , rebuilt, length  $16^{1}$ .

Culvert, metal, installed: Mile 5, 1-18"x20', replacing temporarily bridge over ditch.

#### Route 13K: Bessie-Buster

In cooperation with U.S.S.R.&M. Company and summer residents of Dexter, snow removal started June 1 and concluded June 8, mile 0 to 7.7.

Maintenance road consisted of: repairing soft areas, washouts, chuck holes, resurfacing, cleaning ditches and culverts and maintenance of road with motor graders. End of season culverts and bridges were checked and snow markers replaced to mile 4.5.

Snow Removal: Mile 0 to 7.7, total of 7.7 miles.

Gravel Hauled and Placed: Between mile 2 & 4 - 1790 c.y.

Maintenance Road, with motor grader: Total 15.4 miles.

# Route 13M: Old Nome Depot

Miscellaneous - Repairs to doors, oil and gas rack, water line for shop.

Partition for office in Federal Bldg.

#### New Nome Depot: Satellite Field Area

Upon acquisition of Army surplus buildings in this area, a watchman was installed immediately to prevent further theft and vandalism. Except for cleaning up of area and buildings by watchman, no work was done until conclusion of seasonal work in September.

Next a lease was negotiated with the U.S.S.R.&M. Co. for the area of 19.1 acres in which these buildings were situated.

In the meantime eighteen more buildings were acquired from the Army, situated in what is known as the old Hospital Area. Only the buildings were requested and therefore have to be moved out of the area prior to July 1, 1950.

Buildings acquired will be moved to the New Depot site for specific purposes such as: warehouse facilities for tools, parts, hardware, finished lumber, salvage parts and salvage building material, construction office, R.R. equipment storage, blacksmith shop and gasoline pump house.

Included with these buildings was a large warming shed and 2080' of 6' x 7' corridors which are to be stripped of all salvage material such as: masonite, celotex, insulation, electric wiring etc., and then torn down for salvage lumber. Salvage items are needed for the repair and improvement of buildings at the New Depot.

So that buildings could be moved from old Hospital Area, it was necessary to clear them of gravel before freeze up. This undertaking in itself was a major operation for in some cases buildings were surrounded and partly covered by tailing piles. On completion of this work, buildings were then raised and blocked prior to removal.

Three 24' x 60' Quonsets were moved in, without benefit of snow, because of the immediate need for warehouse facilities. Skids took such a beating that they had to be re-shoed and no more moving was done until enough snow was present.

The work of salvage continued until enough material was available and included the salvaging of all material in the warming shed, plus lumber after it was torn down. Ninety percent of all material in corridors plus 750' of corridors that was removed in 20' panels and lumber salvaged at new depot.

To date 75% of New Depot area has been graded, six 24' x 60' Quonsets moved in, providing adequate storage, buildings repaired, bins completed in warehouses #1 and 2 for parts, hardware, tools etc., electric wiring completed.

Pertaining to Shop Building - New furnace room addition completed with furnace installed, new ceiling completed, using new and salvage material, electric wire replaced almost entirely and interior painting about 75% complete.

At various times equipment was moved in, until everything is now stored in new area except for 3 RR speeders. All shop utilities and tools have been moved in from old shop and are in the process of being installed and placed. Shop should be in full operation sometime in January and in time to complete our equipment repair program.

#### Route 250: Nome-Wireless

In cooperation with A.C.S., 1280 c.y. of gravel was placed to improve existing 1/4 mile of road and 175 c.y. to improve road to new storage tank installation.

Maintenance of road with motor grader, total 1/2 mile.

#### Route 25D: Center Creek Road

Route 25 DA: Little Creek Branch

Route 25E: Submarine-Paystreak

Maintained all year by Army with the exception of light snow removal and the placing of snow markers on Route 25D. In the future, Route 25D will be used as a winter access road from Nome to the New Nome Depot, at Satellite Field; therefore winter maintenance will be done by A.R.C.

# Route 25L: City Airfield (Nome)

During course of winter snow removal was done when needed, on Route 13A, Nome-Bessie, 1/2 mile of which is used as an access road to the field. This was done in cooperation with local bush pilots and air transportation companies using the field. No other maintenance was done during season. Total snow removal - 4 miles.

#### Route 25N: Nome City Streets

On an emergency basis only, in regards to fire hazard, aid was given the City on several occasions, in snow removal, especially in the vicinity of the Old Nome Depot.

#### Route 26: Candle-Candle Creek

On funds and authorization received directly from the Territorial Highway Engineers office at Juneau, the Havenstrite Mining Company supervises the work done on this route and branches. Since receiving a 10' Adams pull grader, which was badly needed, it has been reported that road is in better condition.

#### Route 26C: Candle-Kiwalik

No report of any work done.

#### Route 27: Deering-Inmachuk

The equipment situation was very poor and a mechanic had to be sent from the Kougarok job to make the needed repairs. Considerable delay was experienced in obtaining parts for these old trucks of 1933 and 1934 vintage. This lack of equipment delayed the opening of the project until July 11.

First work done was repairs to Smith Creek Bridge, mile 0.1, which included replacement of X-bracing and the placing of willows and sod to protect abutments from further erosion.

Most of work was just routine maintenance such as: cleaning ditches, repair and replacement of culverts and the patching of road surface, using gravel loaded by hand. Bulk of work was done between mile 1 and 7 and in the vicinity of mine operations at mile 18.

Under the circumstances as much work was accomplished as could be expected. It was quite evident that local supervision is not the answer, because it was a source of friction and dissatisfaction in the crew. This indirectly affected the amount of work done. Changes will definitely have to be made for next season and it is hoped that with proper supervision, probably supplied from Nome, results will be much more satisfactory.

Continual use is made of this road for freighting of material, supplies, fuel and equipment between Deering and mining operation at mile 18 & 19. Estimated tonnage for season would be about 600 ton, not including any replacement of equipment.

Work ended on project September 2, allocated funds being used up.

Gravel Hauled: (Hand Loaded) - 1390 c.y.

Ditching: 4600' - 160 c.y.

Bridge Repairs: minor - 2 Units

Metal Culverts: replacing wood- 12 Total Units, 192' Total Length

Maintenance Road: truck & pull grader - Total 45 miles

Wood Culverts: cleaned and repaired - Total Units 28

Route 370: Golovin-White Mountain Survey

On Wednesday June 29, 1949 the Golovin White Mountain survey began with station 0/00 a point 52.1' north west of Golovin soit light, and was completed Thursday July 21, 1949 at Station 1320/00, exactly twenty five miles, at a point in front of the A.N.S. girls dormatory in White Mountain.

The eight man crew, including Locating Engineer, Chief of Party, Instrument man, three axemen, tractor operator, and cook, and all equipment had been transported from Nome to Golovin on the Solomon ferry barge towed by Captain A. Castel's tug the "Vicky C".

Two portable wannigans were brought along for living quarters, one sleeping six men and the other serving as cook house and sleeping two men. A godevil was used to carry supplies. Two tractors, a "30" gas Caterpillar and a TD-14, equipped with dozer blade and winch were to tow the equipment. The "30" cat broke down about three miles out of Golovin and had to be abandoned. The TD-14 by making two hauls was able to keep up with the survey and thus no time was lost.

The party was equiped with a two way radio set for communication with the Nome office, but all attempts to contact the Nome office were unsuccessful. A schedule was arranged with the station at white Mountain and all messages to and from the Nome office were relayed through this station.

The route in general followed a northwesterly bearing from Golovin swinging gradually to the west and finally coming into White Mountain on a southwesterly bearing.

The first thirteen miles were through open country. Scattered patches of brush were encountered, especially near streams, but these offered very little resistance to the progress of the survey. The balance of the survey was through spruce trees  $\delta$ " to 12" in diameter with occasional open tundra

areas. The TD-14 tractor here proved invaluable in clearing line and was responsible for the good progress made in this area.

The ground in the tundra areas was for the most part soft and wet and would require heavy fill. Frost was encountered at depths varying from 6" to several feet. Small outcropings of shale rock were occasionally found and one or two possible borrow pits. In the spruce timber area fair ground was encountered - several shale rock outcropings were found and a few probable borrow pits.

At station 33/77.7 a short traverse was run tying in the U.S.C.&G.S. station Golovin and bearings taken at that point to the azmuth mark and the Spit Navigation light. At station 1314/00 another short traverse was run tying in U.S.C.& G.S. station White Mountain and a bearing taken at that point to the azmuth mark.

The weather, with the exception of a few days, was very poor. Fog, low clouds and rain prevailed most of the time.

One of the principal reasons for the rapid completion of this project was the use of wannigans and go-devil. The TD-14 kept them abrest of the line at all times and thereby eliminated the time loss in traveling to and from the job.

#### Route 67: Nome-Teller

The small ferries at Penny and Cripple Rivers were not operated this season and no reports were received or requests made for the service. Future use of these ferries will be held in abeyance until conclusive need is established.

#### Route 67B: Teller-Bluestone

Work on this project started on July 13 and consisted of routine maintenance, mile 0 to 15. Routine maintenance included repairs to washouts, small bridges, culverts, ditches plus cleaning and installation of a wood culvert.

Foreman Harry Bourn was able to rent a D-6 tractor from Chuck O'Leary, local miner, enabling him to complete the surfacing of mile 14, besides stock-piling material for use next season. Funds were limited so work of surfacing mile 15 will be done next year. In explanation it might be stated that mile 14 and 15 had never been surfaced so that during wet weather the road was impassable and prohibited the miners in the Bluestone Area from using their trucks.

With only one dump truck and gravel loading done by hand not much more than routine maintenance could be expected. However, despite wet weather the road was in fair shape, especially toward latter part of season.

Project completed September 25 at which time dump truck, tools, etc. were stored at Teller.

Gravel Hauled: (Hand Loading) 705 c.y.

Culvert Installed, Wood: 1 Unit

Bridge Repairs, Minor: 3 Units

Maintenance Road: w/truck and pull grader - total 27 miles.

Route 67E: Teller Airfield

No report of any work done.

# Route 68: Flagging Trails

In cooperation with native villages in outlying areas the local winter trails were temporary staked, for travel of the natives between villages and to their hunting and fishing grounds. In remote areas trails are still used for mail by dog team.

The above also holds true for the repair and up keep of certain shelter cabins on or in the vicinity of these staked trails.

| Temporary Staking: | Vicinity | of | Teller       | Total   | mileage | _ | 37           |
|--------------------|----------|----|--------------|---------|---------|---|--------------|
|                    | 11       | 11 | Golovin      | 11      | 11      | _ | 25           |
| •                  | n        | 11 | Kotzebue     | 11      | 11      |   | 34           |
|                    | H        | 11 | Mary's Igloo | Ħ       | n       | _ | 9            |
|                    | H        | H  | St. Michael  | #1      | 11      | _ | 5            |
|                    | 11       | Ħ  | Cape Nome    | Ħ       | 11      | _ | <b>1-1/2</b> |
|                    |          |    | Gr           | and Tot | tal     | ] | 11-1/2       |

Route 90B: Shelter Cabins - Total 5 Units.

#### Route 89A: Seward Peninsula Tram

**运搬装卸货**力

Work on project started June 3. General maintenance included: snow removal, raising and levelling of track, replacement of ties, placement of the rods, repair of switches, culverts and bridges.

In cooperation with U.S.S.R.& M. Company and local miners, snow removal was carried through as rapidly as possible. As this operation progressed the tracks, bridges and culverts were checked and all necessary repairs made so as to make track safe for those using it. In some cases, only temporary repairs were made followed by more permanent repairs later.

Maintenance crew comprised 8 men under the supervision of Foreman Walter Taylor and were housed and fed in box cars designed for this purpose. As work progressed cars were moved ahead by a gas powered locomotive constructed in local A.R.C. shop. This locomotive together with flat cars was responsible also for the transportation of material, supplies and fuel not only for the tram but also for Route 89AB in the Kougarok.

Snow removal was completed as far as mile 35 on July 20 and by July 30 the track was opened as far as Iron Creek, mile  $52\frac{1}{2}$ .

By August 10th crew cars were moved to Cottonwood siding, mile 65, and served as a base of operations for completing the checking and repairs to track to end of line at Bunker Hill, mile 80-1/4.

Extensive repairs were required between mile 63 and 75 and work was done under most adverse conditions. Rainy weather was almost continuous from the middle of August to the end of project.

On completion of this work, the crew cars were moved back to siding at mile 60 where Foreman Taylor and crew assisted bridge crew of 4 men under Foreman Solbick in completion of repairs on timber trestle #92 at mile 60.1. This trestle was so badly gone that it had to be rebuilt almost entirely, with replacement of all stringers, 21 new bents and ties. Length of trestle was  $226^{\circ}$ .

The two crews continued to work together and next job was relocation of 1050' of track at lake mile  $58\frac{1}{2}$  to eliminate a very hazardous condition caused by thawing action along the lake shore. Track was moved about 25'.

From this job both crews went to the final job of the season; the repair and raising of 60' steel span over Sherrette Creek mile  $56\frac{1}{2}$ . This involved raising the south end of structure 32" by placing 12" x 12" timbers on top of existing steel pier to make it level. Timbers were secured in place by large "U" bolt and a "dead man" placed in fill. Bulkheads or sheathing was placed on or against approach side of end piers to hold fill in place, as well as protection against erosion. With some difficulty due to frozen ground, enough material was dozed to complete approaches on both sides. On completion of this project Foreman Solbick and crew returned to Nome on September 17th followed by Foreman Taylor and crew on September 20th.

Crew cars, flat cars and locomotive were stored at New Depot and the speeders at the Old Depot. Official closing of project was September 25th. All freighting on the tram had been completed prior to September 30th.

Snow Removal: Drifting areas totaling 4800'.

Tracks Raised and Levelled on Mudsills and Timber: Total 8755'.

Gravel Hauled for Raising Track: Total 285 c.y.

Tie Rods Placed on Curves: 115 Units

Ties Replaced: 3350 Units

Switches Repaired: 3 Units

Culvert Repairs: 5 Units

Trestle Repairs, minor: 5 Units

Trestle, Timber, Rebuilt: #92 - Length 226'

Bridge, Steel, Repair: #90 - Sherrette Creek, 60'

Relocation of Track: 1050'

Siding, New Depot: 500'

Route 89AB: Bunker Hill-Taylor and Branches

Crew was sent from Nome to Quartz Creek camp on June 7 with Foreman
Al Pasquan in charge.

Upon completion of putting camp in order, checking and repairing equipment, routine maintenance was then started. Maintenance included: snow removal, control and repair of washouts, repair of bridges, repair and clean-

ing of ditches and culverts, resurfacing especially in vicinity of mile 24, maintenance of road with motor grader and pull grader, ferry service, equipment repair and the repair and maintenance of camo buildings.

As soon as weather permitted the road was inspected as far as Taylor mile 40-1/4. The necessary, temporary repairs made so that road was at least passable during good weather all the way through.

A temporary tent camp was set up at mile 24 on July 14 to 18, as a base camp during surfacing operations in the vicinity of mile 24. Gravel borrow was very scarse in this area, but a mountain of it was found 1 mile north of road at mile 24, which meant building a road to it. It was while working on this road and filling in bad holes between mile  $26\frac{1}{2}$  and 29 that the rainy season started. The almost incessant rain made going so tough that most of equipment was down for repairs and very little was being accomplished. However, 3/4 of a mile of road was completed to future borrow pit.

Work was stopped and crew moved back to Quartz Creek camp with the expectation of resuming work if weather permitted, which did not materialize. Move was made on August 17.

As camp was now the property of the Road Commission, the interim was used to advantage in the much needed repair and maintenance of camp buildings and to complete repairs on equipment. Radio station KVZH, Quartz Creek camp was set up at this time and proved invaluable in communication with Foreman Pasquan. Reception was very good. During short spells of good weather maintenance repairs were continued.

Road at Checker Creek began to show signs of settlement and serious surface cracking caused by thawing action in the ditches. By recovering the area, with tundra, which involved about 500' on each side of the road, this action has stopped. Repairs were then made to the surface.

Because of continued high water in the Kuzitrine River, the Bunker Hill ferry was very necessary. Without it no crossing could be made in regards to freight.

Continued wet weather would not allow much work to be done on the road, but with routine maintenance occasionally it was kept passable to Taylor. However, very little use was being made of the road and as no further freight from Nome was anticipated by the miners after September 20th it was decided to close the project. On completion of closing camp, storing equipment for winter, taking a complete inventory and putting ferry on ways the crew returned to Nome and project was officially closed on September 24.

```
Maintenance Road, w/motor grader:

w/tractor & pull grader:

Gravel Hauled and Placed, (Machine):

Fills with Dozer:

Culverts, Metal, Installed: Mile 12, 1-18" x 20'

17, 1-12" x 20'

Total Units 2, - Total Length 40'
```

Culvert Repairs: Snow Removal:

Total 6 Units
Total 4.2 Miles

Bridge Repairs, Timber, Min

2 Units

#### Miscellaneous: Equipment Repairs

During the interval between seasons an equipment repair program was carried on at the Nome Depot that assured the major protion of District equipment would be in shape and ready for the seasons work. In outlying areas equipment repairs were made during the early part of the work season or just prior to it.

# Transfer of Equipment: Route 39AB - Bunker Hill-Taylor Route 8 - Nome-Council

As discussed with Ike P. Taylor, Chief Engineer, it was thought advisable to replace D-S Caterpillar tractor ARC #1440 in the Kougarok with TD-18 International tractor ARC #1448 from Nome and at the same time to bring back to Nome the GMC 6x6 freight truck ARC #1441 and a set of 76' skids. This transfer was to take place during the early spring when freighting is considered the best.

Accordingly on April 5, a crew of three men started from Nome with TD-18 International tractor and wanigan to the Kougarok via Council. The reason for going by way of Council was to exchange our straight dozer for angle dozer belonging to Chester Milligan, miner of Council.

Accompanying our crew was another tractor, a D-S Caterpillar owned and operated by Buck Whitmore of Taylor.

Fair going was experienced as far as Solomon, but from there on the trail was extremely difficult due to soft, deep snow. A break down causing a two day delay occurred two miles north west of Council. Otto Worm, in charge, and one of the most experienced trail men on Seward Peninsula, stated it was the toughest trail he has ever been on. The time element also verifies this by not arriving at the Quartz Creek camp until April 30th.

On the return trip the same tough going was encountered until within a short distance of Nome. Arrival in Nome on May 15 was none too soon and just beat the spring break up.

Annual Report, Year 1949 - Cont'd.

## Summation of Major Work Items:

| Snow Removal:                          | 65.5 miles            |
|--|-----------------------|
| Maintenance Road, w/motor graders:     | 330.4 miles           |
|  | 213 miles             |
| Maintenance Road, w/maintainer:        | 24 miles              |
| Gravel Hauled (shovel loading):        | 15,943 c.y.           |
| Gravel Hauled (hand loading):          | 2,095 c.y.            |
| Clay Hauled (shovel loading):          | 1.319 c.y.            |
| Fill, with Dozers:                     | 14,950 c.y.           |
| Cut, with Dozers:                      | 26,650 c.y.           |
|  | Units 41, Length 770' |
|  | Units 6, Length 36'   |
| Culverts, metal, repaired:             | Units 39              |
| Ditching:                              | 8.9 Miles, 1730 c.y.  |
| Survey completed, Pioneer:             | 59.4 Miles            |
| Survey, Location:                      | 44.0 Miles            |
| Bridges, Timber, small, minor repairs: |                       |
| Bridges, Timber, small, major repairs: | Units 3, Length 48'   |
| Trestles, Timber, minor repairs:       | Units 6               |
| Trestle , Timber, major repairs:       | Unit 1, Length 226'   |
|  | Unit 1, Length 60'    |
| Trail Staking, temporary:              | Total $111-1/2$ Miles |
| Shelter Cabins, repair:                | Total 5 Units         |
|  |                       |

Tram:

Track raised and levelled:

Tie Rods placed:
Ties replaced:
Switches repaired:
Relocation of Track:
Siding - New Depot:

Total 8755'
Total 115 Units
Total 3350 Units
Total 3 Units
Total 1050'
Total 500'

Yours truly,

John D. Hudert District Engineer

JDH:ge

DATE January 11, 1949
FILE NO.
SUSPENSE—

Juneau . . . . DISTRICT

1945

REFERENCE - Annual Report - 1949 - Nome District:

Route 8 Nome - Council - Mile 0 to 77

General Maintenance and Improvement.

Snow Removal: 1

May 12 to 19th, Mile 0 to 13, plus two miles to Alaska Communication System receiver station in cooperation with ACS and CAA. Total snow removal 15 miles. Sanded ice and snow of bridges mile 4 to 11.

Maintenance Road: With motor graders mile 0 to 17. Total for season 87 miles.

With tractor and pull grader mile 33 to 72. Total for season 86 miles.

With tractor and maintainer mile 17 to 22. Total for season 5 miles.

Ditching:

With tractor and pull grader as follows:

Mile 1 to 13, total ditching 10 miles 1955 c.y.

Mile 36 to 41, total ditching 3 miles 550 c.y.

Mile 41 to 45, total ditching 4 miles 770 c.y.

Mile 50 to 53, total ditching 3 miles 1560 c.y.

Combined totals 20 3840 c.y.

With motor grader:

Mile 11 to 13, total ditching  $l_{\mathbb{Z}}^{\frac{1}{2}}$  miles 300 c.y.

Fill (Relocations): With tractor and dozer.

Mile 8, 2060 c.y.
Mile 37, 2160 c.y.
Mile 37, 340 c.y.
Mile 42, 600 c.y.
Mile 43, 2600 c.y.
Mile 44, 5500 c.y.
Mile 44, 445 c.y.
Mile 45, 925 c.y.

Total 14,530 c.y.

Removing Dirt Slide: Mile 12, Cape Nome Bluff, with tractor and dozer 350 c.y.

Metal Culverts, New:

Mile 3, 3 - 12" x 20' - 60' Mile 52, 1 - 12" x 20' - 20' Mile 12, 2 - 12" x 20' - 40' Mile 37, 1 - 12" x 20' - 20' Mile 41, 2 - 12" x 18' - 36'

DATE
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SUSPENSE—

DISTRICT

REFERENCE Annual Report (Cont'd.)

#### Metal Culverts, New continued Mile 42, 1 - 12" x 20 ' 201 Mile 43, 1 - 12" x 18' 18' Mile 43, - 12" x 20' 1 201 - 12" x 20' Mile 44, 1 201 $2 - 12^n \times 18^n$ Mile 44, 361 Mile 71, $1 - 12^{n} \times 18^{n}$ 181 Mile 72, 1 - 12" x 18' 181 Total Units 17, Total 3261

### Metal Culverts:

| Mile 42, 2 - 15" x 18' - 36'<br>Mile 44, 2 - 15" x 20' -40'<br>Mile 71, 1 - 15" x 18' - 18' | Mile 72, 1 - 24" x 18' -              | 18*   |
|---|---------------------------------------|-------|
| Total Units 5, Total 94'  |                                       |       |
|   | Total Units 1 Total                   | 18 •  |
|   |                                       |       |
| Mile 42, 1 - 18" x 22' - 22'  | Mile 37, 1 - $48$ " x 30°             | - 301 |
|   |                                       |       |
| Mile 37, $1 - 18$ " x $26$ ! - $26$ !   | Mile 38, 1 - 48" x 22'                | - 22' |
| Mile 43, 1 - 18" x 24! - 24!  | Mile 72, 1 - $48$ " x 18'             | - 18' |
|   | , , , , , , , , , , , , , , , , , , , |       |
| Mile 44, 1 - 18" x 6' - 6'  |                                       |       |
| Mile $44$ , $2 - 18$ " $\times 20$ ! $- 40$ !   |                                       |       |
|   | m. 4 . 3 . TT                         | 701   |
| Total Units 6 Total 118   | Total Units 3 Total                   | 701   |

Total No. of units 32, Total L.F. 626'

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Metal Culverts, repaired:

Mile 34 - 2 units

Mile 41 - 1 unit

M le 43 - 3 units

Mile 45 - 1 unit

Total 7 units
```

Ferries: Solomon - June 13 to October 21.

Safety - " 20 to " 21.

Timber Bridges, repaired: Hastings Creek, Mile 11, deck replaced 28.

Solomon River, Mile 41, east approach 40.

Timber Bridges, replaced: Mile 8, Cunningham Creek 26' Bridge, with Arch Culvert (Elephant Hut), Length 40', width 10', height 6'.

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Surfacing: Mile 12 to 17, Gravel Hauled, 1650 c.y.

Mile 34 to 41, Gravel Hauled, 2355 c.y.

Mile 41 to 45, Gravel Hauled, 5931 c.y.

Mile 12 Gravel Hauled, 780 c.y.

Mile 3 and 4, Gravel Hauled, 1005 c.y.

Mile 45 Gravel Hauled, 690 c.y.

Total 12,311 c.y.

Road Repair: Gravel fill, Mile 71 to 72, gravel hauled 5555 c.y.

Spot Grading: Mile 17 to 27, Dirt Hauled, 195c.y.

New Mile Posts: Placed mile 0 to 17.

End of Season: Markers checked and replaced at bridges and culverts, culverts cleaned and checked.

April 15, three quonsets moved to mouth of East Fork, Mile 48, for maintenance camp.

Heavy equipment moved by barge from Nome to Solomon on July 19th and returned to Nome by barge October 6th.

Facilities maintained in field for minor repairs to equipment.

Camp prepared at Mile 48, July 16 to 19. Temporary tent camp at Mile 71.7 in September.

M.B. Mileage checked from end of gravel placed this season to Council, 4 miles, making a total of 77 miles from Nome to Council. (Gravel extends across flats from Council end 1 mile, leaving three more miles to build)

Route 8D: Council - Ophir, road passable, No work done by ARC or miners.

Route 8H: Casa-de-Paga:

Maintenance Road: Tractor and pull grader, Mile 0 to 7, Total 7 miles. Improvements: Mile 3, total 3/4 mile. Side hill construction with dozer, 7,000 c.y.

Route 13A Nome - Bessie:

General Maintenance and improvements. Mile 0 to 4.7.

Winter maintenance: Road kept open as far as city airfield in cooperation with local flyers.

Snow Removal: May 16th to 18th. Mile 0 to 4.7 in cooperation with USSR Mining Company. Total 4.7 miles (3)

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Route 13A (Cont'd)
Maintenance Road: With Motor graders. Total 23.4 miles.

Metal Culvert, New: Mile 1 - 1 - 12" x 30' Total Units 1
Total L.F. 30'

Arch Culvert Metal: L50' - W10' - H6' replacing 26' timber bridge at Bourbon Creek, Mile 2.8.

Raising Grade: At new culvert, mile 2.8 by 3.5". Gravel hauled 1270c.y.

Route 13B Bessie - Sanke River

Snow Removal: By USSR and Mining Company mile 0 to 7. Total 7 miles. By ARC drifts mile 8 to 13. Total removed 4000

Maintenance Road: Washouts and chuck holes filled. Gravel hauled 90 c.y., with dozer;450 c.y., with motor grader; total miles 27.5.

Metal Culverts, new: Mile 1, 1 - 12" x 20' Mile 2, 1 - 30" x 24'

End of Season: Bridge and culvert markers were checked and replaced mile 0 to 9.

Route 13C Bessie - Sunset

Snow Removal: May 19 to 22nd, mile 0 to 6.6. Total 6.6 miles.

Maintenance Road: Motor graders. Total miles 23.6.

Road Repair: Filling washouts, gravel hauled 433 c.y.

Surfacing: Spot gravelling. Hanled 240 c.y.

At Snake River bridge mile 4.2, May 25 to 27th. Approach at south end of bridge washed out. Bulkhead strengthined and fill replaced. 15c.y.

Timber bent on south side and damaged by ice breaking off one pile and cracking another.

Timber Bridge Repairs: Over Snake River, mile 4.2. Damaged bent timber removed and replaced with 28' span using 5 - 12" x 12"-32' borrowed from USED. (Rivers and Harbors). Rock placed

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Route 13C (Cont'd)

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for rep-rep around pile abutment southside. Rock hauled 50c.y.

End of Season: Bridge and culvert markers checked and replaced. Mile 0 to 4.2.

Route 13F Bessie - Osborne.

Snow Removal: May 19 to 22nd. Mile 0 to 5.7. Total 5.7 miles.

Maintenance Road: With motor grader. Total 19.4 miles.

Surfacing: Between miles 2 and 5. Gravel hauled 300 c.y.

Road Repair: Spot gravelling. Total 313 c.y.

Culvert Repaired: 2 units.

End of Season: Bridge and culvert markers checked and replaced mile 0 to 3.

Route 13K Bessie - Buster.

Snow Removal: May 22 to 31st, mile 0 to 5.0. Completed June 22nd mile 5 to 7.7. Total 7.7 miles.

Maintenance Road: With motor grader. Total 44.5 miles.

Surfacing: Mile 2 to 3, gravel hauled 1200c.y. Mile 3 to 5 gravel hauled 2600c.y. Total 3800 c.y.

Culverts: Ditches and culverts cleaned, mile 3 to 7.7.

Road Repair: Spot gravelling. Hauled 245 c.y.

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# 13M - Nome Depot:

General Repair and Maintenance: Repairs to doors, broken windows and sash.

Moved shelves and bins from storage garage to #3 warehouse. Installed
another 550 gal. tank for oil storage in the garage. Partitioned and insulated
the oil storage room. Checked electric wiring in shop and moved the light
fixtures to more advantageous positions. Shelves, small bins, benches and
tool racks were repaired and installed in shop. The floor was repaired and
replaced in the shop.

### Route 25L - Nome City Airfield.

Snow removal: In cooperation with local bush pilots on road to field and at different intervals. Total distance about 1 mile.

Surfacing: Repairs and regrading south end of field. Area covered 8850 s.y. Material used 495 c.y.

N.B.: Material from crushing plant was not satisfactory. Only suitable and available material was from barrow pit at mile 6, Route 8.

#### Route 250: Nome Wireless:

Maintenance in cooperation with ACS. Snow removed at different intervals. Total  $\frac{1}{2}$  mile. Maintenance Road: With motor grader. Total 3/4 miles.

Route 25D - Mouth of Center Creek
Route 25DA - Little Creek Branch
Route 25E - Submarine - Pay Streak

Maintained all year by U.S. Army.

#### 25N - Nome City Streets

On emergency basis only - in regards to fire hazard.

Aid also given in snow removal in vicinity of Nome Depot.

### Route 26 - Candle - Candle Creek

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Route 26 Candle - Candle Creek (Cont'd)
General Maintenance: Work done and supervised by Arctic Circle Exploration Co.

Maintenance Road: Mile O to 7, spot grading bad sections. Gravel handled 75 c.y.

Improvement and Construction: Extension of road north of town and parallel

Kiwalik River, distance approximately 2 miles, average
width 12. Material placed with tractor, carry-all and
dragline approximately 15,000 c.y.

N.B.: This extension is beneficial to the community as it facilitates removal of material and supplies from the river barges which have been unable to navigate the shallow waters of the Kiwalik River as far as Candle.

# Route 26C -Candle - Kiwalik.

No report of any work done.

#### Route 27 Deering - Inmachuk

150 m 3094

Work started June 18th. Stopped September 25th.

Maintenance Road: With tractor and pull grader, mile 0 to 24. Total graded 31 miles.

Spot gravelling: Mile 4 to 18. Gravel loaded by tractor and trap. Material hauled 3,502 c.y.

Timber Bridge Repairs: Mile 18 - 1 unit, 15'
Mile 11 - 1 unit, 11'
Total 26'

Cleaning and ditching mile 0 to 14.

N.B.: Tractor rented from Casa de Paga Gold Company to facilitate gravel loading. However results did not come up to expectations and investigation showed that hand loading is and will be sufficient for future gravelling operations, except in emergency where the road is washed out.

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## Route 67 Nome - Teller

Operated small ferries at Penny and Cripple Rivers.

# Route 67B Teller - Bluestone

Work started May 31, stopped August 28th.

Snow Removal: Mile 0 to 6. Total drifts approximately 4500°. Use of tractor donated by Barney Vognn, mine operator.

Culvert Repair: 1 Unit. Ditching: Mile 4 to 8, 13, 15.

No quantity reported.

Maintenance Road: Pull grader, mile 0 to 14. Total 14 miles.

Spot gravelling, hand loaded. Hauled 566 c.y.

Bridge Repairs: Timber, minor, mile 4.5, 1 unit - 22\* mile 6, 1 unit - 22\* Total

Equipment Repair: ARC #720, Ford V8 Dump truck, repaired during September.

# Route 67E Teller Airfield.

no work done.

## Route 68 Flagging Trails.

| Mary's Igloo |  | 10 miles   |
|--------------|--|--|
| St. Michael  |  | 5 miles  |
| Golovin      |  | 25 miles   |
| Kotzebue     |  | 34 miles   |
| Teller       |  | 37 miles   |
| Nome         | •  | 2 miles  |
|              | Total  | 113 miles  |
|              | Mary's Igloo<br>St. Michael<br>Golovin<br>Kotzebue<br>Teller<br>Nome | St. Michael<br>Golovin<br>Kotzebue<br>Teller<br>Nome |

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Route 89A Seward Peninsula Tram.

Work started May 24th, stopped October 10th.

Rehabilitation: Between Nome and Little Creek continued in cooperation with U.S. Army and completed by June 30, 1948.

Gravel Hauled: For soub grade and ballast, 2,250 c.y.

Track Relaid and ballast placed: 7,204 feet.

Road Crossing replaced: 3 locations, total 182'

Road Crossings repaired: 7 locations, total 135'

Broken Rails Replaced: Total 210'.

Total length, 720'. Track removed and gravel placed to raise grade. Track replaced on new grade. Gravel hauled 250 c.y.

Timber Trestles Repaired: Dry Creek Mile 0.75, Length 720° Mile 2 60° Total

Timber Trestles New: Mile 2.2 mud sills, 24'
Mile 2.5 mud sills, 34'
Mile 1.25 Bents 80'
Total 138'

Track Repaired: Mile 0 to 2, included cleaning, straightening, raising track and replacing ties.

Switches Repaired: 2 Units.
Switches Replaced: 1 Unit.

Tie Rods on Curves: 124 Units.

Improvements: Relocation and construction, Little Creek Area, mile 4. Total relocation 1667.

Trestle Replacement: Mile 4.25. Length 296', replaced with fill, made with dpzer and carry-all. Total 2100 c.y.

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Route 89A Seward Peninsula Tram (Cont'd)

Sub-grade Fill: With dozer and carry-all - 400 c.y.

Ballast for track: Placed with carry-all - 260 c.y. Graded with motor grader.

Track: Removed and relaid 1667.

New 310 units Ties placed: Salvage 523 units Road Crossings: 2 at 16' for total of 325.

Tie Rods: Placed on Curve 38 units.

General Maintenance: Mile 0 to  $80\frac{1}{4}$ .

Tram opened to Iron Creek, Mile  $52\frac{1}{2}$ , July 19 Tram opened to Bunker Hill Mile  $80\frac{1}{4}$ , July 26

Spar to Lomen Dock: Road Crossing 40. Track raised and leveled 225.

Snow Removal: Mile 332, total drifts 1000'.

Burning Grass on Track: Mile 4 to 17, 47 to 80. Operation successful.

Timber Trestles, Emergency Repairs: Mile 11, #11, 25

Mile 13, #14, 100'

Mile 16, #29, 107' Mile 19½ #34, 110'

Mile 22½ #43, 68°

Mile 22 # # # ... 17'

Mile 65\\display #95,

Total 7 Units

Track Raised and Mud Sills Placed: 2339.

Ties Replaced: New 4624 Units Salvage 141 Units

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89A Seward Peninsula Tram - General Maintenance (Cont'd)

Brush Cutting: (5\* on each side of track) Mile 45 to 49 - 4 miles.

Mile 32 to 42 where needed for total of

Mile 13 to 17 where needed for total of

Total

7.8 miles.

Switches Repaired: Mile 42 - 1 unit
Mile 47 - 1 unit
Mile 60 - 1 unit
Total

Timber Culverts repaired: Mile 62, 1 unit Mile 26, 1 unit Total 2 units.

Dykes Repaired: Protecting tracks mile 27, 25, 22, with dozer 400 c.y.

End of Season: Crew cars stored at Little Creek for winter.
Locomotive, speeders, etc. at Nome.

Route 89AB Bunker Hill - Kougarok and Branches.

Season started May 12 and ended September 22, 1948.

Snow Removal: At camp site, mile 10 to 18, mile 9 to 10. Total  $8\frac{1}{2}$  miles.

Maintenance Road: With motor grader, mile 0 to 28. Total 145 miles.

Gravel hauled, mile 10 to 12 1895 c.y.

Gravel hauled, mile 7 to 28 1656 c.y.

Total 3551 c.y.

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Route 89 AB Bunker Hill - Kougarok and Branches (Cont'd)

Ditching: Mile O to 15. Total 10 miles.

Metal Culverts, new: Mile 7, 1 - 12" x 18'

Mile  $7\frac{1}{2}$ , 1 - 15" x 28'

Mile  $11\frac{1}{2}$ , 1 - 15" x 18'

Mile  $12\frac{1}{2}$ , 1 - 15" x 18'

Mile  $18\frac{1}{3}$ , &\$\frac{1}{2}\$ - 48" x \frac{30'}{12}\$ (Replace Neva Creek Bridge)

Total 5 units  $112^{\frac{1}{2}}$ 

Culvert Replacement: Using oil drums, at mile 14, 3 units of 25' for a total of 75'.

CulvertRepair: Removing and placing on higher grade, mile 6 to  $12\frac{1}{2}$ , 7 units. Between mile  $10\frac{1}{2}$  and 13, 6 units.

Road Repair: Mud holes filled with rock at mile 22 to 24. Total rock 35 C.Y.

Grading Road: With dozer, mile 19 to 22, total 3 miles.

Bridge Repairs: Mile 10, Quartz Creek, washed out by high water. Replaced and dead men set. Mile 2.1, removed decking and replaced with salvaged decking of Neva Creek Bridge: Mile 6, Coffee Creek, replaced running plank, 48 feet.

Ramp, with dozer, 250' long. 1,100c.y.

Channel in river ----- 550 c.y.

Ferry in operation August 30 to Sept. 22, 1948.

Coffee Creek Branch:

Maintenance Road: Mile O to 2. Total 4 miles.

Ditching - mile O to 2, total 2 miles.

Road Repair: Gravel hauled, 780 c.y.

Metal Calvert, New: Mile 2, 1 - 15" x 18'.

### Miscellaneous - 89AB

Augustinia.

Equipment, tools and supplies hauled from Bunker Hill to Quartz Creek May 14, 1948.

Camp site building repaired. I building (cook and mess house) painted. End of season the Bunker Hill ferry was hauled out of river and stored for winter. Equipment etc. stored for winter at Quartz Creek Camp, Mile 10.

NB Necessary repairs had been made to road during the season to enable the

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mine operators to complete what hauling had to be done.

# SUMMMATION OF MAJOR ITEMS

| Maintenance Road                        | Motor graders Pull graders |         | 375 miles<br>138 "         |
|---|----------------------------|---------|----------------------------|
| Gravel - machine, shove dozer and carry |                            |         | 19,517 c.y.<br>30,835 c.y. |
| n hand                                  | , ·                        |         | 566 c.y.                   |
| " trap                                  |                            |         | 3,502 c.y.                 |
| Snow Removal                            |                            |         | 51.5 miles                 |
| Metal culverts, new                     | 41 units                   |         | 830 <b>'</b>               |
| " , repair                              | 23 units                   |         |                            |
| Timber bridges replaced                 |                            | 2 units | 901                        |
| 11 11 11                                | " 48" Culvert              | 1 unit  | <b>30'</b>                 |
| " repaired                              |                            | 9 units | 2361                       |
| Ditching, road                          |                            |         | $42\frac{1}{2}$ miles      |
| Flagging Trails                         |                            |         | 113 miles                  |
| Ties replaced, ARC new                  |                            | *       | 5215 units                 |
| " , salvage                             |                            |         | 1594 units                 |
| Track raised                            |                            |         | 2564                       |
| " relocated                             |                            |         | 16671                      |
| Brush cut along right of                | <del>-</del>               |         | 7.8 miles                  |
| Track removed and replace               | ed                         |         | 7.924                      |
| Timber trestle repaired                 |                            | 9 units | 1,259'                     |
| Timber " new                            |                            | 3 units | 138 *                      |

Respectfully submitted,

JOHN D. HUDERT Superintendent

ALASKA ROAD COMMISSION

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Route 8.

Snow Removal: April 8,9 and 17, in co-operation with C.A.A. from mile 0 to C.A.A. Transmitter site, total, 3 miles. May 20 to 25, opening road mile 2 to 16,; removing drifts, total, 16,000'. Road opened to traffic May 28.

Sanded and opened channel of bridges between mile 6 and 11.

Eridge at Peluk creek and 36" culvert at mile 1.75 worked satisfactorily and did not wash out during spring break-up.

Widening road (improvement): mile 12 to 13 around Cape Nome bluff, average width widened  $10^{\circ}$ , road width now 20° average. Completed. Material moved with tractor and dozer, 2,100 c. y. Slides removed with dozer and  $\frac{1}{2}$  yd shovel, about 300 c.y.

Forries: Inspection trip April 17 to Safety to check on condition before sending men and equipment to recover ferry. April 10 to 12 Safety ferry recovered and returned from its location 3 miles north of Safety where it had been washed during the November 1946 storm. Also slight damage to ferry repaired. West tower repaired and new cable installed to replace old one that had broken loose and had snagged in lagoon and could not be salvaged. Safety ferry in operation from June 27 to Cotober 22. Bonanza ferry in operation June 27 to October 27. Bonanza ferry had been damaged by storm and was regaired prior to operating.

Gravel operations: Surfacing mile 12 to 13, 2,650 c.y. Spot graveling mile 2 to 12 and 13 to 16, 5000 c.y. Pea gravel and sod, mile 16 to 32, 2000 c.y. Matting placed on grade in vicinity of ferries; Safety, 400, Bonanza, 1,200.

Ditching by hand, mile 33 to 34, 3,000, 112 c.y.

Ditching with pull grader, mile 11.5 to 16, 23,000, 1,200 c.y. Culverts, new, metal: Between mile 1.5 and 3, 2-18, total 48.

Between mile 4 and 13, 2-30", total 46',

2-24", total 44',

2-18", total 42',

10-15", total 210', 7-12", total 160',

Between mile 33 & \$2, 10-12", total 160',

2-24", total 44'.

Timber culverts installed " " " " 1-24", total 20'.

Total metal culvert installed, 754'.

Total wood culverts installed, 20'.

Timber bridge repaired: 1 unit, mile 10.5, Hastings creek.

Small timber bridges replaced: With 30" culverts and fill made with dozer, mile 6, 1 unit; mile 8, 1 unit; fill with dozer, 180 c.y.

Maintenance: Tractor and pull grader, mile 12 to 20 and mile 32 to 42, total, 18 miles. Motor graders mile 0 to 43, total, 151 miles.

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A percentage of the cost of A.R.C. labor reimbursable by City. C.A.A. also co-operated by furnishing two dump trucks with drivers and a 12' motor grader, operator furnished by A.R.C.

Gravel hauled mile 0 to 2; A.R.C., 1,600 c.y.; C.A.A., 600 c.y.; City of Nome, mile 0 to 1, 300 c.y.; total 2,500 c.y.

Fill replaced between mile 1 and 2 with D8 dozer, 1,900 c.7.

Metal culverts installed for City (reimbursable); 1-12" X 26', 1-18" X 20', 1-18" X 22'; total, 68'.

Culverts installed for A.R.C., mile 2; 1-18" X 26', mile 3, 1-18" X 22', total 48' (included in new culvert item).

Deck replaced on Hastings creek bridge.

Washout at mile 16.5, length 1,500', fill with dczer, 2,500 c.y.

Debris cleaned off road between miles 18 and 32, spotted, totalling 2 miles.

Telephone line repaired between Solomon and Safety for convenience of ferry operators, reimbursable by Territory.

N.B. Due to shortage of equipment, repair and maintenance work was completed on all 13 routes before starting on route 8. This work was completed June 18 and crew moved to Hastings creek June 19. Road to Solomon was passable for heavy trucks, with front wheel drives, about August 4, and for lighter vehicles September 20, at which time repairs had been completed. A.R.C. 30 Caterpillar Tractor was left at mile 16.5 to \*\*\*\*
assist trucks in getting through this washed out area.

Misc.: Eranch road to Silver's mine graded with dozer, 2 miles, approximately, and bridge built crossing Quigley's ditch, 20' long. Interested parties satisfied. Some hauling of oil had been done from Solomon to Council by mine operators. Trail reported fair as far as head of Fox river. No work done by A.R.C. from mile 43 to council.

End of season: Culverts checked and cleaned. Markers replaced at culverts and bridges, mile 1 to 13.

Route 8D. No work done by A.R.C. Repair work on road by local mine operators, using A.R.C. equipment.

Route 8H. No work done by A.R.C.. Road used by mine operators and evidently passable.

Route 13A. Snow removal, May 5, mile 0 to 3, drifting areas, total 1 mile. Culverts thawed at 1 mile (City air field).

Maintenance: Motor grader, total 34 miles.

Road widened at Satellite field, 150' in length, 85 c.y.

End of season: Culverts checked and markers replaced at culverts and bridges.

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Route 13B.

Snow removal: May 8 to 12, mile 0 to 9, total, 3 miles. June 5 to 7,

mile 9 to 21, total, 1/4 miles. Road opened to traffic June 8.

Maintenance: Motor graders, mile 0 to 21, total, 123 miles.

Culverts, new, metal: Mile 5, 1-36" X 22'; 1-15" X 20'. Timber bridge at mile 6 removed and replaced with metal culvert 24" X 30', and fill with dozer, 450 C.y. Total metal culvert installed, 72'.

Washouts repaired with tractor and dozer, 450 c.y.

Ditching with motor graders, 9,000', 350 c.y.

Surfacing: Spot graveling, mile 0 to 21, 1,595 c.y.

End of season: Culverts checked and markers replaced at culverts and bridges, mile 0 to 8.5.

Route 13C.

Snow removal: May 21-22, mile 2 to 12, total 1 mile. Ice jam removed at Snake river bridge, mile 8, May 21.

Washouts repaired with dozer. 150 c.y.

Road opened to traffic May 23.

Maintenance: Motor graders, mile 0 to 12, total, 52 miles.

End of season: Culverts checked and markers replaced at culverts and bridges mile 0 to 8.

Route 13F:

Snow removal: May 12 to 14 and 27; total 1,700.

Road opened for light traffic May 28.

Surfacing: Spot graveling, 290 c.y.

Maintenance: Motor graders, mile 0 to 8, total 42.5 miles.

End of season: Culverts checked and markers replaced at culverts and bridges, mile 0 to 6.

Route 13K.

Snow removal: May 23,28 and 29, mile 0 to 11, total, \$,0001.

Road opened to light traffic May 31.

Maintenance: Motor graders, mile 0 to 11, total, 77 miles.

Surfacing: Spot graveling, 375 c.y.

End of season: Culverts checked and markers replaced at culverts and bridges mile 0 to 10.

Route 13M.

Repair shop: Old metal roof leaked badly, removed and replaced with tar roofing paper. Salvaged corrugated sheet metal and lumber from warehouse torn down at Fort Davis, reused on roof and sides of repair shop as a protective measure from fire. (Storm had taken out part of Fort Davis warehouse so thought it advisable to salvage the balance). Broken windows repaired and glass replaced, cabinets and work bench drawers repaired and replaced in shop.

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Route 13M, cont'd.

K.D. building, 20' X 120', removed in three sections from Army air base to 110 feet of this building placed on east side of lct 4, block 31 (N. E. corner of A.R.C. equipment yard) facing on 3rd Avenue. To be used for finished lumber storage and salvage parts.

Route 25L.

Maintenance and repair: With motor graders, filling holes and fine grading, approximately 10,000 S. y. Material used, 1/2 crushed gravel from C.A.A. stock pile, 125 c.y.

Maintenance, in co-operation with A.C.S. Snow removed, 1/2 mile; motor grader operated 1/2 mile.

> Routes 25D, 25DA, 25E. Maintained all year by Army.

Route 25N.

Storm damage repair, only, on route 8, mile 0 to 1, within city limits. Debris cleaned off road by city hired tractor and dozer.

Gravel hauled and placed by A.R.C., 1,100 c.y., by C.A.A., 500 c.y., by city,

300 c.y., total 1,800 c.y.

Metal culverts installed for city, 1-12" X 26', 1-18" X 20', 1-18" X 22', A.R.C. to be reimbursed by city for culverts and labor used. total 68 feet'.

Route 26.

General maintenance: Work done and supervised by Arctic Circle Exploration Company.

Inspection made July 10; road then in good condition. One mile extension of road, authorized by Territorial Highway Engineer, and put in by John Havenstrite, follows tailings up the stream bed and was in fair condition, except for several crossings which need repairing.

> Route 26C. No report of any work done.

Route 27.

General maintenance: Mile 0 to 22. Season started June 20 and ended August 30. Pull grader operated 22 miles.

Filling in chuck holes and washouts. Gravel used, loaded by hand 1,013 c.y., coverage, 10,680 s.y.

Metal culverts installed: Mile 19, 1-20" X 13', 1-16" X 18', total, 36'.

#### ALASKA ROAD COMMISSION

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Route 27, cont'd.

Miscellaneous: Emergency repairs to air field at Mile 18.

Smith Creek Re-location: Mile 0 to 1, using old wagon road location.

Gravel hauled, 1,060 c.y.

Metal culverts installed, 1-12" X 16', 1-22" X 16', total, 32'.

South section of road, now completed, extends 2,000' from main road, leaving 1,000' to connect with proposed Smith creek bridge. The north section extends 1,000' from east end of Deering air field, leaving 2,000' to connect with proposed Smith creek bridge. Total to complete, 3,000'. Equipment breakdowns and non-arrival of Ford parts for repair, from Seattle, hindered completion of this project.

Route 67.

Operated small boat ferries at Penny and Cripple rivers.

Route 67B.

General maintenance: mile 0 to 1. Season started May 26 and chosed August 30. Cleaned culverts and ditches, quantities unavailable.

Washouts filled and road resurfaced, spot graveling, 319 c.y.

Storm damage: Road washouts fill replaced with dozer, 165 c.y. total.

Gravel replaced on 1,000' of road just north of village, 319 c.y.

N.B. Snow drifts and small washouts taken care of in the spring through the courtesy and co-operation of Jack Bullock of the Gold Dust Mining Co.

Route 67E

Storm demage repairs made to Teller air field: Large wood culvert, 4' X 4' X 50', draining slough in rear of village cleaned and repaired. Field graded with tractor and dezer furnished by Jack Bullock of the Gold Dust Mining Co.

Route 68.

Flagging trails. 105 miles.

Route S9A.

General Maintenance, mile 3 to 80.25.

Snow removal: Started May 23 completed June 15, mile 3 to 34, spotted drifts, total, 6,500.

Minor repairs to track and tram opened to Iron Creek, mile 52, June 18, and to Bunker Hill, June 19.

Ties replaced: 3,527 units.

Track raised and mud sills placed: 7,2941.

Timber trestles repaired; 13 units, total length, 3541.

Steel trestles repaired: 1 unit, Sherrette Creek, mile 56.5; tension member replaced that had been previously damaged by ice.

l unit, Iron Creek bridge, expansion rockers checked and found that bolt was too tight and binding.

#### ALASKA ROAD COMMISSION

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Route 89A, cont'd.

Steel trestles repaired: 1 unit, Nome River bridge, mile 14, steel bent removed and replaced with timber bents. The steel bent which was replaced had caused trouble ever since bridge was built by heaving during the winter months.

Wood Culverts repaired: 25 units.

Switches repaired: 8 units.

Switches installed; 1 unit.

Turntables repaired: 1 unit.

Rail replaced: 461.

Dyke completed at Iron Creek, 10,000 c. y., with D40 tractor and dozer.

Rehabilitation of tram between Nome and Little Creek: Consisting of relocation and restoration of tram around west end of Satellite Field, removed by Army
and never restored, and regrading and relaying track parallel with Center Creek Road.

Work to be done by A.R.C. with funds furnished by Army.

Work started on this project September 26 and suspended for season due to winter weather October 23. To be resumed next season.

Project completed 40% plus.

Work accomplished: Track uncovered and cleaned, 2,000°. Fill with dozer on new location, completed, 5,800 c.y. Track relaid on new grade, 90°. Track laid on new location, 600°. Ties used, 240 units. Track removed entirely along Center Creek road, 4,800° (to be relaid on new grade). Grade lowered 1° south side of Satellite field and along Center Creek road, 4,900° - with dozer, 1,770 c.y. Final grading of subgrade with motor grader, 7,000°.

End of season: Camp cars at Little Creek. D40 tractor, locomotive and two

speeders at Nome depot for winter repairs.

Most of freighting done on tram by the Kougarok Freight & Mining Company for A.R.C., necessitated by A.R.C. locomotive breakdown and lack of skilled locomotive operator.

Route 89AB.

General maintenance mile 0 to 40.

Season started with equipment repair on June 9, and work on road, June 15. All equipment in need of repair and hindered work for about 5 weeks. Camp maintained at Quartz Creek Army Camp with permission of Army authorities.

Road Surfacing: Spot graveling - gravel hauled, 6,000 c.y. Most of this quantity between mile o and 14, Coffee Creek Branch, with some from 14 to 32 mile.

Washouts filled with dozer: 525 c.y.

Metal culverts installed: 2-12" X 20; 3-15" X 20; total, 100.

Ditching: Mile 1 to 3, 5,000, 185 c.y., with machine.

Maintenance: Motor graders, mile 0 to 32, total, \*\*\* 146 miles.

Timber bridges repaired: 1 unit at Neva creek, mile 18.

l unit at Quartz creek, mile 10, replaced with longer span, also new location and grade. The reason for this change: Existing bridge was under water during the spring break-up, the bent on the south side was being washed out, having dropped 6" already, and the angle of bridge was too sharp for safe hauling. Dimensions of new bridge; 16' wide and 32' long.

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BTRICT NOTES

DATE Jan. 14, 1948
FILE NO.
SUSPENSE—

REFERENCE Annual Report, continued.

Poute 89AB, cont'd.

Tent frames and buildings at North Fork were moved to higher ground for use next season.

Road was passable most of season and as far as 32 mile (North Fork) to September S, when wet weather made it impassable for any freighting to be done.

End of season: Culverts cleaned; equipment checked and stored for winter at Quartz Creek Camp, with exception of one dump truck at Coffee Creek Air Field, for transportation in spring. Non-perishable food supplies, tools, parts, batteries, compressor and are welder stored at Bunker Hill. Season closed October 1.

Route 18.

Kaltag-Nome Trail: over-hanging brush and windfalls removed between Golovin and Elim.

Route 90B.
Serpenting Hot Springs Building Project completed.

#### Miscellaneous:

Elephant huts at mile 6, Bessie-Snake River road, consisting of 3-60' units acquired for use as culverts, prepared for removal next spring. Six quonset huts at mile 5, Bessie-Snake river road, moved to Nome and stored in rear of A.C.S. Installation, east of Stedman Avenue. Removad from Base Area requested by Army.

Summation of work accomplished: Maintenance, road; 648 miles. Gravel, machine; 19,640 c.y. Gravel, hand; 2,572 c.y. Grading with dozer; 25,580 c.y. Grading road with dozer; 2 miles. Metal culverts installed; 958. Wood culverts installed; 201. Snow removal: 14.75 miles. Timber bridges installed (replacement); 1 unit. Timber bridges repaired; 2 units. Timber bridges replaced with culverts; 2 units. Timber trestles replaced with culverts; 1 unit. Timber trestles repaired; 13 units, 254. Steel trestles repaired, minor; 3 units. Ties replaced; 3,767 units. Track raised and mud sills placed; 7,2941.

> John C. Hudert. Superintendent:

Juneau

DATE Jan. 14, 1948 FILE No.

REFERENCE— Proposed 1948 Program - Nome District.

| Route.        | Tot | al.            | J. | P.     | L & | М.     | Fie: | ld.     |
|---------------|-----|----------------|----|--------|-----|--------|------|---------|
| 8's           | *   | 60,000         | \$ | 18,000 | *   | 6,000  | \$   | 36,000  |
| 13&25         |     | 27,000         |    | 8,100  |     | 2,700  |      | 16,200  |
| 27            |     | 11,000         |    | 3,300  |     | 1,100  |      | 6,600   |
| 67B           |     | 7,000          |    | 2,100  |     | 700    |      | 4,200   |
| <b>58</b> .   |     | 2,000          |    | 600    |     | 200    |      | 1,200   |
| 89 <b>A</b>   |     | 52,000         |    | 15,600 |     | 5,200  |      | 31,200  |
| 8 <b>9</b> AB | _   | <i>3</i> 6,000 |    | 10,800 |     | 3,600  |      | 21,600  |
| Misc.         |     | 5,000          |    | 1,500  |     | 500    |      | 3,000   |
|               |     | 200,000        |    | 60,000 |     | 20,000 |      | 120,000 |

Berry

John D. Hudert, Superintendent.

#### ALASKA ROAD COMMISSION

JAN 20 1343 DATE Jan. 14, 1948

Juneau

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REFERENCE— Proposed 1948 Field Program - Nome District.

Route 8. General maintenance and improvement, mile 0 to 45.

Mile 3.5; raise grade of road twelve inches for distance of about 1,500. Grade tundra piled along this section, to eliminate in part, drifting snow.

Replace fill for 500 at east approach of Nome river bridge.

Paint Nome river bridge.

Replacement of bridge at Cunningham creek with arch culvert (Elephant hut material). Also relocation of same to eliminate dangerous curves and excessive drifting snow.

Relocation and new 40' bridge at Hastings creek; install as proposed in 1947 program.

Install new culverts mile 11 to 13 and 32 to 43, where needed. Ditching where needed mile 11 to 12 and 32 to 43. Check mile posts and replace where needed. Extension of road from mouth of East Fork, mile 45, to council.

Route 8D. Maintenance in co-operation with miners. Bridge over Ophir creek to be built (Territorial allotment of \$1,500).

Route 13A. General maintenance mile 0 to 3. #Replace bridge at Mile 2.5, Bourbon creek, with arch culvert (Elephant hut material).

Route 13B. General maintenance mile 0 to 20.

Spring break-up repair: gravel, ditching and culverts where needed.

Improvement: Replacement and relocation of 4 small bridges, as proposed in 1947 program. However, only to be done if additional equipment will be available for a second crew.

- Route 13F. General maintenance mile 0 to 9.

  Spring break-up repair: ditching and culverts where needed.
- Route 13K. General maintenance mile 0 to 11.

  Side hill ditching mile 5 to 7 as soon as Army is out of Area.

  Spring break-up repair: ditching and gravel where necessary.

  Gravel surfacing mile 5 to 7.5, only if equipment is available

for second crew.

Route 26. Maintenance and improvement in cooperation with miners.

Route 27. General maintenance and improvement mile 0 to 25. Completion of 3,000 of relocated road (mile 0 to 1) using old wagon road location. Bridge over Smith creek, much longer span than anticipated due to soft creek bottom.

#### ALASKA ROAD COMMISSION

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REFERENCE Proposed 1948 Field Program, continued.

Route 67. Operate small boat ferries at Penny and Cripple rivers.

Route 67B. General maintenance mile 0 to 15.

Improvement, mile 13.5 to 15. Surfacing to be placed as this section of read has never been surfaced and is impassible in wet weather. This is necessary to open road to mining operations.

Route 68. Flagging trails, about 250 miles.

Route 89A. Maintenance and improvement mile 0 to 80.25.

Renewal of ties and raise track on mud sills where necessary.

Replacement of small trestles and wood culverts with fill and

metal culverts where possible and needed.

River diversion mile 21 and 22 to protect track.

Raise Sherrette creek bridge, mile 56.5, and fill for approaches.

Clear brush 5' each side of track and burn grass between rails.

Thorough repair of all wood trestles where needed. Steel bridges

to be painted if possible.

Rehabilitation of tram from Nome to Little Creek in co-operation with Army. Deadline for completion, June 30, 1948.

Route 89AB. Maintenance and improvement mile 0 to 40.75.

Special attention and effort paid to drainage, as this is the ching and culverts where needed.

biggest problem; ditching and culverts where needed.

Surfacing where needed, especially from mile 18 to 32. Effort will be made to establish permanent camp at Neva Greek, mile 18. Ramp for ferry at Bunker Hill.

Replacement of bridge at Neva creek with longer span and higher grade as fill approaches wash out every spring.

General. No new work recommended as maintenance and improvement problems are about all that can be taken care of at the present..

John D. Hudert,
Surerintendent.

### ALASKA ROAD COMMISSION

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DATE Jan. 14, 1948
FILE No.

Buspense---

Juneau

. DISTRICT

REFERENCE List of Equipment to be condemned.

Kougarok.

 $\overline{ARC-723}$  Ford  $1\frac{1}{2}$  ton dump truck, worn out, used for salvage. ARC-725 Ford  $1\frac{1}{2}$  ton dump truck, worn out, used for salvage.

Council.

ARC-689 Model BB Ford dump truck, worn out, used for salvage.

Bunker Hill

ARC-697 Byers "40 shovel) minus parts, extensive repairs required, worn out.

liome.

ARC-684 Byers "40" shovel, worn out.

ARC-683 Model A Ford pickup, worm out, no repair parts.

ARC-1117 Model A Ford pickup, worn out, no repair parts.

ARC-1421 Chevrolet 12 ton dump truck; motor has to be rebuilt and frame cracked beyond repair. Replacement cost more than truck would be worth. Estimate labor only, about \$1,200.

John D. Hudert, Superintendent.

Juneau

п дать Jan. 14, 1948 JAN J J J S FILE NO.
Suspense—

REFERENCE Projects the Territory might be interested in.

Maintenance and improvement of existing air field. The necessity of improving end lengthening the cross runway.

Maintenence and improvement of existing air field. necessity of lenghtening cross runway. Also field shelter for passengers and freight.

Nome City Air Field. Improvement: Resurfacing entirely with crushed gravel to remove water holes and ice that are hazardous to flying.

Emergency field and shelter in the vicinity of the mouth of Iron creek. Local flyers have complained of a lack of an emergency landing field in this area, and through a personal knowledge of weather conditions, prevailing winds, etc., would recommend that this be looked into.

The necessity of passenger and freight shelter cabins at cutlying air These would also serve as emergency shelters fields that serve a mining section. in case of forced landings in winter flying.

Superintendent.

ALASKA ROAD COMMISSION

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DATE Jan. 14, 1943

USPENSE---

REFERENCE Additional information reference 1948 work program.

Route 8. Extension of road from mouth of East fork, mile 45 to Council, mile 65.

In view of the fact that there were no storms this fall the road from Nome to Solomon should be in fair shape for next season except for general maintenance. This should enable us to spend enough time on this extension to make it passable for the freighting which the mining operators in Council intend doing. According to reports received this section is in fair condition up to the corduroy crossing the flats into Council and which is impassable. A survey early in the season should give us the answer as to what can be done.

If the proposed program is satisfactory, Route S allotment should be enough to cover this extra work. However, an additional \$10,000 might be necessary to take care of the cost of establishing a base camp and for transportation of heavy equipment to site, as Solomon ferry is inadequate.

Route 13. On the assumption that no new equipment will be available it is proposed that the same/as used in 1947 be followed in putting the 13 routes in shape first and then concentrating on route 8 with the equipment on hand, which is enough for only one crew.

# See Proposed 1948 Field Program. The reason these items were not completed during 1947 was that the R. R. crew quit as soon as they arrived in town and we were forced to use the trestle crew and what men were left of route 8 maintenance crew for rehabilitation of the tram from Nome to Little Creek, which was our primary consideration.

John D. Hudert, Superintendent.

# SUMMARY OF SUB-PROJECTS

# NOME DISTRICT

1946.

|       | 1946.  |       | •     |        |         |
|-------|--|-------|-------|--------|---------|
|       |  |       | Sled  |        | Total   |
|       |  | Road. | Road. | Trails | Miles.  |
|       |  |       |       |        | 1111000 |
| 8     | Nome-Council   | 65.0  | 18.5  |        | 83.5    |
| 8D    | Council-Ophir Creek  | 12.0  |       |        | 12.0    |
| 8H    |  | 20.0  |       |        | 20.0    |
| 8J    | Shovel Creek   | 5.0   |       |        | 5.0     |
| 13A   | Nome-Bessie  | 3.2   |       |        | 3.2     |
| 13B   | Bessie-Snake River   | 20.8  |       |        | 20.8    |
| 13BA  | Snake River-Monument   | 3.0   |       |        | 3.0     |
| 13C   | Casa de Paga Shovel Creek Nome-Bessie Bessie-Snake River Snake River-Monument Bessie-Sunset Creek Nome-Osborne | 12.0  |       |        | 12.0    |
| 13F   | Nome-Osborne   | 10.2  |       |        | 10.2    |
| 13K   | Bessie-Buster  | 7.3   |       |        | 7•3     |
| 18    | Kaltag-Nome  |       |       | 280.Ú  | 280.0   |
| 18A   | Bonanza-Kotzebue   |       |       | 240.0  | 240.0   |
| 18B   | Golovin-Council  |       |       | 35.0   | 35.0    |
| 18J   | Spruce Creek   | 1.5   |       |        | 1.5     |
| 21    | Unalakleet-St. Michael   |       |       | 68.0   | 68.0    |
| 25 C  | Nome-Wireless  | .2    |       |        | .2      |
| 25D   | Mouth of Center Creek  | 2.8   |       |        | 2.8     |
| 25DA  | Little Creek Branch  | 2.2   |       |        | 2.2     |
| 25E   | Submarine-Paystreak  | 3.0   |       |        | 3.0     |
| 26    | Candle-Candle Creek  | 7.3.  |       |        | 7.3     |
|       | (Includes 26G; Candle Radio Road .3)   |       | •     |        |         |
| 26C   | Candle-Kiwalik   |       | 18.0  |        | 18.0    |
| 27    | Deering-Inmachuk   | 25.0  |       |        | 25.0    |
| 28A   | Nome-Serpentine Hostprings   |       |       | 148.0  | 148.0   |
| 41    | Kiana-Klery Creek  |       | 6.0   | 6.0    | 12.0    |
| 41A ' | Kotzebue-Shungnak  |       |       | 200.0  | 200.0   |
| 41AA  | Kotzebue-Selawik-Shungnak  |       |       | 131.0  | 13100   |
| 41B   | Kotzebue-Point Barrow  |       |       | 517.0  | 517.0   |
| 41F   | Kotzebue-Noatak  |       |       | 125.0  | 125.0   |
| 42    | St. Michael-Kotlik   |       |       | 63.0   | 63.0    |
| 42A   | Ungalik River  |       | -7*0  |        | 7.0     |
| 62    | Dime Creek   |       | 9.0   |        | 9.0     |
| 62A   | Haycock-Bear Creek   |       | 22.0  |        | 22.0    |
| 67    | Nome-Teller  |       |       | 83.0   | 83.0    |
| 67A   | Teller-Cape Prince of Wales  |       |       | 67.0   | 67.0    |
| 67B   | Teller-Blue Stone  | 15.5  | 12.5  |        | 18.0    |
| 67c   | Teller-Pilgrim Hot Springs   |       |       | 48.0   | 48.0    |
| 67D   | Teller-American River  |       |       | 35.0   | 35.0    |
| 67J   | Tin City-Goodwin   | 5.0   |       |        | 5.0     |
|       |  |       |       |        |         |

# Summary of Sub-Projects, Nome District, 1945.

|                                      |  | Road.    | Sled<br>Road. | Trail.        | Total<br>Miles.     |
|--------------------------------------|--|----------|---------------|---------------|---------------------|
| 68<br>73<br>73A<br>73B<br>73C<br>89A | ######################################                               | 4.0      | 9.5           | 148.0<br>89.0 | 与·5<br>89·0<br>80·2 |
| 89AB<br>89C<br>89D                   | Bunker Hill-Kougarok<br>Iron Creek-American Creek<br>Iron Creek Road | 40.5<br> | 12.0<br>7.5   |               | 40.5<br>12.0<br>7.5 |
|                                      | Total:   | 345.7    | 112.0         | 2283.0        | 2740.7              |



# UNITED STATES DEPARTMENT OF THE INTERIOR

#### ALASKA ROAD COMMISSION

JUNEAU, ALASKA No.

Nome, Alaska, February 28, 1947

Subject: Annual Report of Operations, Nome, District, 1946.

To:

Alaska Road Commission, Juneau,

Alaska.

## Route 8; Nome - Council.

Winter maintenance of first 2 miles to beam station by C.A.A. Final snow removal by Army.

Snow Removal started May 13 in cooperation with Army and A.C.S. Army equipment used exclusively mile 0 to 16. Total snow removal, 16 miles.

Read washout at Peluk Creek, necessitating temperary bridge. Thawed culverts, to offset this condition, but to no avail. Excessive glaciering in this area.

Ferries: Safety ferry operated from June 1 to October 24; and Bonanza ferry from June 15 to October 24.

Gravel Operations: Between mile 5.5 and 8 read width increased by 4 feet plus graveling surface. Gravel hauled, 2,890 cu. yds. Graded read at Sand Spit, mile 29.5 to 31, in vicinity Bonanza ferry. Gravel hauled, 1,170 cu. yds. Graded read between mile 18 and 26. Gravel hauled 1,945 cu. yds. Graded read in mile 16. Gravel hauled 300 cu. yds.

Widening Road: Road widened approximately 10 feet around Cape Nome, mile 12. Completed  $\frac{1}{2}$  mile. Material moved with dezers, 4,000 cu. yds., approximately.

Peluk Creek Bridge: Fill for approaches, with dozers, 1,800 cu. yds; with trucks, 240 cu. yds.

Timber Bridgo, new: Feluk Creek, mile 1.25; length 15 feet, width 16 geet.

Bridges repaired: Derby Creek, mile 6 and Lake Creek bridge between mile 32 and 33.

# Route 8; Nome - Council, continued.

Metal Culverts, new: Between mile 35 and 41, 4 - 15" X 20; mile 13, 1 - 12" X 25; mile 1.75, 1 - 48" X 24; total 129 feet.

Motal Culverts Extended: Between mile 4 and 9, 47' of 12"; 131' of 15"; total 178 feet.

Storm Damage: Heavy rain periods, Aug. 8-9, 24-26. Washouts repaired mile 32 to 39; with dozers, 3,000 cu. yds., approximately; with trucks, 300 cu. yds., approximately.

Graded road with dozers: Big Hurrah Creek, 3 miles; Solomon River, above East Fork, 5 miles.

Storm periods, alond coast: Oct. 25-28; Nov. 15-16; damage repaired between Nome and mile 2.5. Sand and driftwood removed with dozer, 1.5 miles; washouts repaired with dezers, 500 cu. yds., approx. All culverts and small bridges, which were blocked with sand and drift-Small timber bridge, mile 1.75 near Healy cabin wood, were opened. It was replaced with 48" X 24' metal culvert. cable at Safety pulled a deadman and dropped into channel. New deadman installed and cable recovered and replaced on towers. Safety ferry, which had been pulled out for the winter, floated off the ways, but grounded undamaged inside lagoon. It has been leveled up with blocking and will be recovered in the spring of 1947.

Maintenance, Road: Between mile 0 and 41; total 73 miles.

End of Season: All culverts and bridges checked and cleaned. Stakes replaced for future snow removal mile 1 to 12.

N.B. Considerable traffic between mile 0 and 20 by Army and A.C.S., also as far as mile 41 by mine operators, and others. No report of any freight hauled to Council, except which was done over winter trail.

## Route 8D; Council - Ophir.

General maintenance from July 19 to Sept. 20.

Grading read, mile 0 to 3; gravel hauled 1,112 cu. yds. Ditching, mile 0 to 3; 2,000 feet, 150 cu. yds. Sloping with dezer, \$00 feet, 480 cu. yds. Maintenance, Read; Tracter and pull grader, mile 0 to 3, total 11 miles.

N.B. Equipment in poor condition; excessive repairs required.

#### Route 8H; Casa de Paga.

No work done. Necessary to be done, as stated in 1944 report.

## Route 13A; Nome - Bessie.

General maintenance, Mile 0 to 3. Snew removal, May 20, by A.R.C., 3 miles. Maintenance, mile 0 to 3, total 7 miles.

Approach to Dry creek bridge washed out during spring break-up. Deteur used until fill was replaced. Fill replaced 158 cu. yds. Road also maintained by Army for the period it was used by them for hauling gravel to air base.

End of season: Culverts and bridges checked and cleaned and stakes replaced for future snow removal.

## Route 13B; Bessie - Snake River.

General maintenance.

Snew removal: Started May 17, mile 1 to 9; total 9 miles.

Maintenance, Read: Motor grader, between mile 0 and 21;
total 52 miles.

Washouts and mud holes caused by spring thaw and excessive rains in August were repaired; gravel hauled 291 cu. yds; gravel fill with dozer 450 cu. yds.

Metal culverts installed, new, mile 6.5; 1 - 30" X 20'.

End of season: Culverts and bridges checked and cleaned and stakes replaced for future snew removal from mile 3 to 9.

#### Route 13C; Bessie - Sunset.

General maintenance.

Snow removal; by Army May 21 and 22, mile 0 to 8, for purpose of observing ice conditions at 8 mile bridge for protection of air base; total 8 miles. Small ice jams at bridge blasted by A.R.C. May 27 and 28. Storm damage: Washouts, etc., repaired. Gravel hauled 127 cu. yds.

Maintenance, read: Mile 0 to 12, total 24 miles.

End of season: Culverts and bridges checked and cleaned and stakes replaced for future snew removal mile 3 to 8.

# Route 13F; Nome - Osberne.

General maintenance.

Snew removal: May 23, at request of miners, between mile 1 and 6, total 1.5 miles.

Maintenance, read: Meter grader mile 0 to 8, total 8 miles.

Storm damage: Mile 1, bridge appreaches washed out and detour maintained until fill replaced. Fill required, dezer, 150 cu. yds; ether washeuts filled, dezer 100 cu. yds; truck 28 cu. yds.

End of season: Culverts and bridges checked and cleaned and stakes replaced for future snow removal mile 1 to 5.

## Route 13K; Bessie - Buster.

Maintenance and Improvement.

Snow Removal: By Army, May 17, mile 3 to 6: By A.R.C., mile 6 to 10; total 7 miles.

Imprevement: Continuation and completion of program started in 1945, mile 3 to 11.

Grading and widening, mile 6 to 11. Surfacing and subgrade combined, gravel hauled 4,432 cu. yds.

Grading with dezer, material approximately 1,500 cu. yds. Ditching: 30,000 lineal feet, 1,200 cu. yds, approximately, with dezer and pull grader.

Timber bridge repair: two units widened 2 feet, mile 9.

Metal culverts installed, mile 4 to 11: Replacements, 1-18"

X 20'; 2-12" X 20'; total 60 feet. New metal culverts: 11-12" X 20';
16-15" X 20'; 1-15" X 22'; 6-18" X 20'; 1-18" X 22'; 1-18" X 26'; 2-24"

X 20'; 1-24" X 26'; 1-36" X 20'; Total 816 feet. Lengthened: 12", 20';
15", 62'; 18", 44'; Total 126'. Total lineal feet of metal culvert installed, 1,002 feet.

Maintenance, Road: Motor grader, mile 0 to 11, total 35 miles. Storm damage: Repair washouts, truck 60 cu. yds. Removing dirt slides, dozer, approximately 300 cu. yds.

Improvement complete except for some ditching mile 4 to 6 and installation of several culverts. Final maintenance with meter grader and clean-up, mile 6, net completed due to freeze-up.

End of season: Culverts and bridges checked and cleaned and stakes replaced for future snow removal mile 1 to 8.

#### Route 13M; Nome Depots.

Graveling and grading yards for material and equipment storage. Gravel hauled, 260 cu. yds.

General clean-up in and around buildings, minor repairs and improvements made and all broken window glass replaced.

#### Route 25C; Nome - Wireless.

Spring and summer maintenance by Army. Winter maintenance by A.R.C. in cooperation with Army and A.C.S.

Route 25D; Center Creek Read. 25DA; Little Creek Branch. 25E; Submarine - Paystreak.

Maintained all year by Army. Ne work by A.R.C.

#### Route 25L; Nome Landing Field.

Necessary winter maintenance was performed with contributed funds plus A.R.C. maintainer.

No work was necessary after the spring break-up. The field is in good condition.

## Nome City Streets; Route 25N.

No maintenance by A.R.C., but cooperated in removal of debris cast up by sterms during latter part of October and assisted wherever possible during the emergency.

# Route 26; Candle - Candle Creek.

Arctic Circle Exploration Company everseeing maintenance and changes on this road, as well as doing most of the work. One dump truck and pull grader furnished by A.R.C. Allocation made by Territorial Highway Engineer to John Havenstrite, mine operator, for one mile extension of present road, to his operations.

Request made but no information received regarding work done or use of our equipment on this road.

Inspection made in July and road then in fair shape.

## Route 26C; Candle - Kiwalik.

No report of any work done.

### Route 27; Deering - Inmachuk.

General Maintenance.

A.R.C. Equipment: two dump trucks, one pull grader.

Maintenance, Road: Truck and pull grader between mile 0 and 25,
Total 28 miles. Filling in chuck heles and washouts, and necessary relocations, caused by river erosion. Gravel hauled, 2,095 cu. yds.

Repairs made to equipment.

#### Route 67; Nome - Teller.

Operated small ferries at Penny and Cripple rivers.

# Route 67B; Teller - Bluestone.

General maintenance.

Are Equipment: one dump truck, and one pull grader. Use of D7 tractor contributed by Edgar Tweet.

Maintenance, Road: Tractor and pull grader, mile 1 to  $U_1$ , tetal  $U_1$  miles. Filling chuck holes, washouts and spot graveling; gravel hauled, 1,406 cu. yds.

Road extended one mile closer to the right fork of the Bluestone river by a new route to the satisfaction of the miners at Gold Run.

## Route 68; Flagging Trails.

Total covered by this report, 102 miles, as follows: Teller and vicinity, 37 miles.

St. Michael, 5 miles.

Igloo, 10 miles.

Golovin, 50 miles.

## Route 89A; Seward Peninsula Tram Road.

General Maintenance.

Operations from June 26 to October 13.

Reason for late start; Lack of equipment and labor

trouble.

Work consisted of renewal of 850 ties; inspection of trestles and repairs to 4 trestles; raising and leveling track from Little Creek to Bunker Hill; clearing brush between mile 14 and ## 36; bulk of work done between mile 47 and 67.

East approach to Iron Creek bridge washed out during spring breakup. Temporary bracing and cribbing placed under track until fill could be replaced later in the season.

Tram opened to Bunker Hill August 4.

Tram closed to traffic August 24 to 30, because of soft wet road bed and track under water between mile 63 and 65.

Minor repairs made to Sherrette Creek bridge

Deadmen replaced and cable tightened and fill replaced at Iron Creek bridge. Material involved, 6,500 cu. yds., approximately, obtained by removing island located upstream on right limit. This should eliminate excessive glaciering at this point. Material in excess of tram fill used for dyke to prevent further erosion of east bank and tram fill. A.R.C. D40 tractor and dozer used plus tractor and dozer rented, to help in completing work before bad weather set in. All equipment returned to Little Creek terminus except crew cars left en siding at Nome River bridge, mile 14.

A new siding 300 feet long was installed at Little Creek to provide adequate parking space so that "Y" could be kept clear, as requested by U. S. S. R. & M. Co.

In further explanation of our late start on tram. Due to circumstances beyond our control tram equipment was stormbound and scattered along the track at the close of 1945 season, and we were unable to get the equipment in to town for necessary repairs for the following season. tractor was used for snow removal on June 6-7, and broke down on 8th. being repaired it was used to transport men and supplies to crew cars at U. S., mile 27, on June 26th; then used for snow remeval toward Nome. Broke down again making fill at 22 mile and had to be taken back to Neme. Tractor hired from mine operator at U. S. for completion of snow removal, mile 17 to 22, and from mile 27 to 34. In order to move locomotive off track at mile 47, drive shaft had to be obtained and replaced. Lack of locomotive hindered getting material to repair washed out bridge at 20 mile until July 22. cars moved up to Iron Creek by July 24, which was also the date for the opening of the tram to that point. N.B. Army Surplus acquisition: Locomotive and flat car July 10. Extensive repairs on Locomotive.

# Route 89AB; Bunker Hill - Kougarok and branches:

Transporting newly acquired surplus equipment from Davidson's Landing to Bunker Hill, also freighting gas and oil from Davidson's Landing to Quartz Creek, mile 10. Started April 20 and finished June 8. Delayed twelve days at the start of freighting and moving of equipment because of bad weather which delayed arrival of Surplus Property Officer at Davidson's Landing to check out equipment and supplies.

### Route 89AB; continued.

Mechanics sent to Bunker Hill April 2 to repair equipment and help in freighting operations. Mechanic left at Bunker Hill was drowned in Kuzitrin river when boat overturned in crossing to work on other side. First reported in on June 3 but evidently happened about May 29. Body not recovered.

Road work started on June 10 and concluded on October 5. Only two dump trucks available in the first part of the season, until four more were shipped from Nome via tram between August 9 and 30. Base camp at Bunker Hill, later moved to Army camp at Quartz creek, mile 10, permission being granted A.R.C. for its use by the Army. Read impassable from mile 0 to 18 due to settlement and major portion of work was done in this area. Work accomplished was far below expectations, consequently very little work was done beyond the 19 mile post. The reasons are definite: the shortness of the season due to lack of trucks, excessive wet weather which meant constant refilling of areas elready gone over and the usual poor labor plus the now evident lack of initiative on the part of the foreman. At close of season road was passable from mile 0 to 34.

Gravel hauled between mile 0 and 25, most of it between mile 1 and 12, and on Coffee Creek road, 8,452 cu. yds.

Gravel dozed, 350 cu. yds.

Culverts installed, metal drums being used; mile 1, 1 - 20" X 20'; mile 14, 3 - 20" X 20'; total 80 feet.

Ditching, approximately 3,000 feet; 150 cu. yds.

Maintenance, Road: mile 0 to 25 and Coffee Creek branch; total 150 miles.

All equipment stored for winter at Quartz Creek Camp, mile 10, including camp equipment stared in building. Exceptions; 6 X 6 truck at Bunker Hill and one dump truck at Coffee Creek Field to be used for transportation the following spring.

#### Route 890; Iron Creek - American Creek.

A few days hand work was done on this route corduroying soft spots with large willows.

#### Miscellaneous.

Master Mechanic sent to Point Spencer to check on newly acquired Army surplus equipment and to get it ready for shipment to Nome. Equipment arrived in Nome on June 29 and was unloaded June 30. Four  $1\frac{1}{2}$  yd. dump trucks, Chevrolet, were acquired from Surplus at Nome and delivered July 16. Four International K6 dump trucks were borrowed from C.A.A. and used on 13 Routes August 3 to October 5.

# Summation of work accomplished.

Maintenance, Road: 402 miles.

Gravel hauled: 24,302 cu. yds.

Grading with dozer: 14,630 cu. yds.

Grading road with dozer: 8 miles.

#### Summation of work accomplished, continued.

Metal Culverts installed: 1,409 cu. ft.
Ditching: 35,000 lineal feet; 1,500 cu. yds.
Snow Removal: 44.5 miles.
Timber bridges installed: 1 small unit.
Timber bridges repaired: 2 small units.
Timber Trestles repaired, tram: 4 units.
Steel Trestles repaired, tram: 1 unit.
Ties installed, tram: 850 units.

#### Storm Damage.

Gravel hauled: 964 cu. yds.
Gravel fill, dozer: 4,500 cu. yds.

#### Weather Data.

Nome and vicinity:
Rainfall, June, 2.39"; most recorded since 1931.

" July, 2.29"; 4th highest since 1930.

Kougarok:
Rainfall, August, 7.07"; most ever recorded.

"Sept., 2.02.

Very truly yours,

John D. Hudert, Superintendent.

## 20/190

### UNITED STATES DEPARTMENT OF THE INTERIOR

ALASKA ROAD COMMISSION

JUNEAU, ALASKA

Neme, Alaska, February 28, 1947

Alaska Road Commission, Juneau, Alaska.



Gentlemen:

Following is proposed work program for 1947.

Route 8. Maintenance Mile 0 to 45.

Surface and widen mile 1 to 5.5 and 8 to 13.

New bridge 40' long and 16' wide at Hastings Creek.

Relocation and construction of road at Hastings Creek
in cooperation with Army and Signal Corps to connect with new bridge.

Lenghtening existing culverts mile 1 to 4 and 9 tl 13 and additional new culverts mile 1 to 13.

Surfacing where necessary mile 13 to 31.5.

Ditching where necessary mile 1 to 13. Install arch culverts at Martin, Derby and Cunningham Creeks, plus relocations.
Route 8D. Maintenance and imprevement in cooperation with miners.

Route 13A. Maintenance mile 0 to 3. Replace bridge at mile 1.5 with arch culvert (elephant hut material).

Route 13B. Maintenance mile 0 to 20.

Replace some old, and install additional culverts.

Ditching and surfacing where necessary.

Have had considerable trouble with four small bridges on this route. Would recommend replacement and relocation of road where necessary, or fill, to give more clearance. Four bridges average 10' long and 16' wide needed.

Route 13F. Maintenance mile 0 to 9. Replace bridge at mile 1 with arch culvert.

Maintenance mile 0 to 11. Ditching where necessary mile 0 to 6. Resurfacing and widening mile 5 to 7. Additional new culverts mile 0 to 3.

Route 26. Maintenance and improvement in cooperation with miners.

#### \*\*\*

Route 27.

Maintenance mile 0 to 25.

Relecation and construction of about 1.5 miles

af road in vicinity of mile 1 due to river erosion. Old wagon road
location to be used. A small bridge is needed at Smith Creek.

Route 67B. Maintenance & improvement.

Route 68. Flagging trails, about 250 miles.

Route 89A. Maintenance and improvement. Renewal of ties where necessary and if obtainable. Repair Nome river bridge, mile 14 (south approach). Repair Iron Creek bridge and build additional revetment if necessary. Replacement of small trestles and wood culverts with metal culverts and fill where possible and needed. River diversion to pretect track at mile 21 and 22. Raise and repair Sherrette creek bridge. Clear brush 5' each side of track and burn grass on track.

Route 89AB. Maintenance and improvement. Maintenance mile 0 to 45. Surface and fill where necessary mile 0 to 45. Additional ditching and installation of metal culverts where needed. Establishment of a permanent camp at Neva creek, mile 18.5. Ramp for ferry landing at Bunker Hill.

General. If time permits it is also recommended that the following new road be tuilt: Two miles to connect road from Glacier creek (mile 9 on route 13B) with Sunset Road (mile 3 on route 13C). Two miles of side road from mile 19 on route 13B to U. S. S. R. & M. Co. ditch camp at Cape Hern. For their benefit and with their cooperation.

Very truly yours,

John D. Hudert, Superintendent.

### UNITED STATES DEPARTMENT OF THE INTERIOR

ALASKA ROAD COMMISSION

JUNEAU, ALASKA

Nome, Alaska, February 28, 1947

Alaska Road Commission, Juneau, Alaska.



Gentlemen:

Fellowing is suggested program for 1947:

|               | Total                     | J. P.         | L & M.     | Field.   |
|---------------|---------------------------|---------------|------------|----------|
| 8 Routes      | \$36 <b>,</b> 50 <b>0</b> | \$11,000      | \$ 3,500   | \$22,000 |
| 13&25 Routes  | 25,000                    | 7,500         | 2,500      | 15,000   |
| Reute 27      | ***9,000                  | 2,700         | 900        | 5,400    |
| Route 67B     | 4,000                     | 1,200         | 400        | 2,400    |
| Route 68      | 2,000                     | . 600         | 200        | 1,200    |
| Route 89A     | 30,000                    | 9 <b>m000</b> | 3,900      | 18,000   |
| Route 89AB    | 28,500                    | 8,559         | 2,850      | 17,100   |
| Misc. Roads & | Trails 5,000              | 1,500         | <u>500</u> | 3,000    |
|               | 1/10,000                  | 42,050        | 13,850     | 84,100   |

\*\*\*Increased to cover cost of re-location and construction of  $1\frac{1}{2}$  miles of read, using old wagen read location, in vicinity of 1 mile, including a small bridge over Smith Creek.

Very truly yours,

John D. Hudert, Superintendent.

June 27, 1946

Mr. J. D. Hudert, Superintendent, Alaska Road Commission, Nome, Alaska.

Dear Sir:

Attached is a corrected copy of your summary of sub-projects showing mileages as of end of 1945 season. It is necessary that this come along as a part of your annual report, even though no changes whatever have taken place in order that our mileage route list can be kept accurate up to date.

The list should always be made up according to the one attached. mileages should remain the same in every case, unless a route has been actually measured and found to be different than miles shown, or unless some route has been dropped in part or in total which can only be done on authority from here.

All routes left off this list as compared with the one you sent in have been dropped. No dropped routes are to be put back in the list except on authority from Juneau. Any changes whatever in the list must be noted at the bottom of the sheet with explanation.

No mileage for Route 68 is ever counted in total mileage. Your written report should show total miles actually flagged.

Last year we adapted decimals for road mileages rather than fractions -- hundredths not considered. Your local roads should be remeasured with tested speedometer and correct mileages to nearest tenth secured for the table. In doing this, no duplication of any part of road is to be counted, where they should happen to overlap.

Very truly yours,

27/15

Hawley Sterling, Assistant Chief Engineer.

Enc. HS:YK copy on 13/-1-113

& or or

FRC BOX 65430

#### SUMMARY OF SUB-PROJECTS

### 10>

#### NOME DISTRICT

| 7 | a   |   | ĸ |
|---|-----|---|---|
| - | . 7 | 4 | • |

|             | 474J                                 | •          |       |       |       |
|-------------|--------------------------------------|------------|-------|-------|-------|
|             |                                      |            | Sled  |       | Total |
|             |                                      | Road       | Road  | Trail | Miles |
|             |                                      |            |       |       | -     |
| 8           | Nome-Council                         | 65.0       | 18.5  |       | 83.5  |
| ණ           | Council-Ophir Creek                  | 12.0       |       |       | 12.0  |
| SH          | Casa de Paga                         | 20.0       | -     | -     | 20.0  |
| 8J          | Shovel Creek                         | 5.0        | -     |       | 5.0   |
| 13A         | Nome-Bessie                          | 3.2        | -     | **    | 3.2   |
| 13B         | Bessie-Snake River                   | 20.8       |       | -     | 20.8  |
| 13BA        | Snake River-Monument                 | 3.0        |       |       | 3.0   |
| 130         | Bessie-Sunset Creek                  | 12.0       |       | ***   | 12.0  |
| 13F         | Nome-Oaborne                         | 10.2       | -     |       | 10.2  |
| 13K         | Bessie-Suster                        | 7.3        | -     |       | 7.3   |
| 18          | Kaltag-Nome                          | ***        |       | 280.  | 280.0 |
| 184         | Bonenza-Kotsebue                     |            | -     | 240.  | 240.0 |
| 188         | Golovin-Council                      |            |       | 35.0  | 35.0  |
| 18J         | Spruce Creek                         | 1.5        | -     | -     | 1.5   |
| 21          | Unalakleet-St. Michael               |            |       | 68.0  | 68.0  |
| 250         | Nome-Wireless                        | .2         | -     |       | .2    |
| 25D         | Mouth of Center Creek                | 2.8        | ***   | •••   | 2.8   |
| 25DA        | Little Creek Branch                  | 2,2        |       |       | 2.2   |
| 25E         | Submarine-Paystreak                  | 3.0        |       | **    | 3.0   |
| 26          | Candle-Candle Creek                  | 7.3        | -     |       | 7.3   |
|             | (Includes 26G: Candle Radio Road .3) |            |       |       |       |
| 26C         | Candle-Kiwalik                       | -          | 18.   | ***   | 18.0  |
| 27          | Deering-Irmachuk                     | 25.0       |       | -     | 25.0  |
| 284         | Nome-Serpentine Hot Springs          |            | -     | 148.0 | 148.0 |
| 41          | Kiana-Klery Creek                    |            | 6.0   | 6.0   | 12.0  |
| 414         | Kotzebne-Shungnak                    |            | -     | 200.0 | 200.0 |
| ALAA        | Kotsebue-Selawik-Shungnak            | ~~         |       | 131.0 | 131.0 |
| 41B         | Kotzebue-Point Barrow                | -          | -     | 517.0 | 517.0 |
| 41F         | Kotsebue-Heatak                      | <b>***</b> | -     | 125.0 | 125.0 |
| 42          | St. Michael-Kotlik                   | -          | -     | 63.0  | 63.0  |
| 42A         | Ungalik River                        |            | 7.0   |       | 7.0   |
| 62          | Dime Creek                           |            | 9.0   | •     | 9.0   |
| 62A         | Hayeock-Bear Creek                   |            | 22.0  | •     | 22.0  |
| 67          | Nome Teller                          | •          |       | 83.0  | 83.0  |
| 67A         | Teller-Cap Prince of Wales           |            |       | 67.0  | 67.0  |
| 67B         | Teller-Bluestone                     | 15.5       | 2.5   |       | 18.0  |
| 67C         | Teller-Pilgrim Hot Springs           |            |       | 48.0  | 48.0  |
| 67D         | Teller-American River                | -          | **    | 35.0  | 35.0  |
| 67 <b>F</b> | Tin City-Goodwin                     | 5.0        | 44-46 | -     | 5.0   |
|             |                                      |            |       |       |       |

#### Summary of Sub-Projects, Nome District, 1945

|       |                            | Road  | Sled<br>Road | Trail  | Total<br>Viles |
|-------|----------------------------|-------|--------------|--------|----------------|
| 68    | Flagging Trails            |       |              |        | •              |
| 73    | Warshall Road              | 4.0   |              | -      | 4.0            |
| 73A   | Ketlik-Marshall            | -     | •            | 148-0  | 148.0          |
| 738   | Stuyahek                   | ••    | 9:5          |        | 9.5            |
| 73C 9 | Old Hamilton-Scammon Bay   | *     | ***          | 89.0   | 89.0           |
| 894   | Seward Peninsula Tran Road | 80.2  |              | -      | 80.2           |
| 89AB  | Bunker Hill-Kougarok       | 40.5  |              |        | .40.5          |
| 89C   | Iron Creek-American Greek  |       | 12.0         | -      | 12.0           |
| 890   | Iron Creek Road            |       | 7.5          |        | 7.5            |
|       | Total:                     | 345.7 | 112.0        | 2283.0 | 2740.7         |

# Mayla J. si

#### SUMMARY OF SUB-PROJECTS

### NOME DISTRICT

1945

|                     | V , / 1945   |   | led by                                 | W.   |
|---------------------|--|---|--|--|
|                     |  |   | Ten '                                  | Total  |
| •                   | ·  |   | ead Trail                              | Miles  |
| 8                   | Neme-Council                                       |   | 18/801 -                               | 83.7   |
| 8D                  | Council-Ophir Creek                                | 12.0                                    |  | 12.0   |
| 8H                  | Casa de Paga                                       | 20.0                                    |  | _  |
| 8J                  | Shevel Creek                                       | 5.0                                     | 7 _                                    | 1,0  |
| 13A                 | Neme-Bessie  | -54                                     |  | 3.2  |
| 13B                 | Bessie-Snake River                                 | 20-3/4                                  | 20.8=                                  | - 20,8   |
| 13BA                | Smake River-Menument                               | 3.8                                     |  | 3.0  |
| 13C                 | Bessie-Sunset Creek                                | 12,5                                    |  | 120  |
| 13 <b>F</b>         | Neme-Osberne                                       | 10,                                     |  | - 10.2   |
| 13K                 | Bessie-Buster                                      | つ つ こ こ こ こ こ こ こ こ こ こ こ こ こ こ こ こ こ こ | 3 —                                    | 7.3  |
| 18                  | Kaltag-Neme  |   |  | 5280.0   |
| 18A                 | Benanza-Ketzebue                                   | -                                       | - 240,                                 | 0 240.0  |
| 18B                 | Gelevin-Council                                    | -                                       | <del> </del>                           | 31.0   |
| 18J                 | Spruce Creek                                       | 11/1                                    |  | 1.5  |
| 21                  | Unalakleet-St. Michael                             |   | 68,                                    | 680  |
| 25°C                | Neme-Wireless                                      | - 3.O.T                                 | <u> </u>                               | 0.2  |
| 25D                 | Meuth of Center Creek                              | 2-3/4                                   | 285 -                                  | - 2.8  |
| 25 DA               | Little Creek Branch                                | <del>2}</del> 2                         | 2 / -                                  | ーンシ  |
| 25E                 | Submarine-Paystreak                                | 3.0                                     |  | - 3.0  |
| <b>2</b> 6          | •  | 7.3                                     |  | 73   |
| 263                 | Bear Creek Frail Inches 76 G; Cande Radio Pras 0.3 |   | (15)                                   | <b>!</b>   |
| 26 C                | Candle-Kiwalik                                     | ·                                       | 18,6                                   | 18.0   |
| 26G                 | Candle Radio Read                                  |   | -                                      |  |
| 27                  | Deering-Innachuk                                   | 25.0                                    |  | - 22.0   |
| 26                  | Shelten-Candle                                     |   | 152                                    | yerrounds .  |
| 284                 | Nome-Serpentine Het Springs                        |   | 148                                    | 148.0  |
| -37                 | Topkek-Candle                                      |   | 15                                     | <b>&gt;</b>  |
| <del>-37</del> ★    | Bluff-White Mountain                               |   |  |  |
| 41                  | Kiana-Klery Creek                                  | ·                                       | 6.0                                    | ), 120   |
| 414                 | Ketsebue-Shungnak                                  | -                                       |  | 200-0  |
| 4144                | Ketsebue-Selawik-Shungmak                          |   |  | 0.131.0  |
| 41B                 | Ketsebue-Peint Barrew                              |   | 517·                                   | 517.0  |
| 410                 | Kiwalik-Woorvik                                    |   | <del></del>                            | THE PROPERTY NAMED IN  |
| 41F                 | Ketzebue-Meatak                                    |   | - 125                                  | 0 125.0  |
| 42                  | St. Michael-Ketlik                                 |   | 63.                                    |  |
| 424                 | Ungalik River                                      |   | 7.0                                    | 7,0  |
| 49                  | Davidson's Landing-Taylor                          |   | 0                                      |  |
| 62                  | Dime Creek   |   | 9.0                                    | 9.0  |
| 62A                 | Hayeeek-Bear Creek                                 |   | 22.0                                   | 22.0   |
| 67                  | Neme-Teller  |   | 83.                                    |  |
| 67A                 | Topler-Cape Prince of Wales                        |   | 67.                                    |  |
| 67B                 | Teller-Bluestene                                   | 182 15.00                               | # 25 -                                 | - 18.0   |
| 67C                 | Teller-Pilgrim Het Springs                         | -28 17/2                                | 48.                                    | 0 48.0   |
| 67D                 | Teller-American River                              |   | —————————————————————————————————————— |  |
| لارة<br>67 <b>F</b> |  | EA                                      |  |  |
|                     | Tim City-Geedwin                                   | 5.0                                     | -                                      | 7.0  |
| -674                | Weeley-Geld Run                                    |   |  | A STATE OF THE STA |

(2) Summary of Sub-p\_\_jests, Neme District 1945.

|      |                               | Sled Total Miles          |
|------|-------------------------------|---------------------------|
| 68   | Flagging Trails               | 40                        |
| 73   | Marshall Read                 | 4.0                       |
| 73A  | Ketlik-Marshall               | 148.0 148.0               |
| 73B  | Stuyahek                      | 一% — 9.5                  |
| 730  | Old Hamilton-Scammon Bay      | 89.0 84.0                 |
| 891  | Seward Peninsula Tram Read    | 80.2                      |
| 89AB | Bunker Hill-Keugarek          | 405                       |
| 89C  | Iren Creek-American Creek     | 40.5 12.0 - 12.0          |
| 89D  | Irem Creek Read               | - 号75 - 75                |
|      | Total: Read Sto Miles. Totals | 345.7 112,0 2283.0 2740.7 |
|      | Sled Read 152                 |                           |
|      | Trail29ht "                   | 1                         |

2400 +1.

#### SUMMART OF SUB-PROJECTS

#### NOME DISTRICT

1945

|          | 1945                                 |         |            |        | /     |
|----------|--------------------------------------|---------|------------|--------|-------|
|          |                                      |         | Sled       |        | Total |
|          |                                      | Road    | Road       | Trail  | Miles |
| <b>8</b> | Nome-Council                         | 65.0    | 18.5       |        | 83.5  |
| න        | Council-Ophir Creek                  | 12.0    | 7007       |        | 12.0  |
| 8H       | Casa de Paga                         | 20.0    | **         |        | 20.0  |
| 8J       | Shovel Creek                         | 5.0     |            |        | 5.0   |
| 134      | Nome-Bessie                          | 3.2     |            |        | 3.2   |
| 138      | Bessie-Snake River                   | 20.8    | 48-10      |        | 20.8  |
| 13BA     | Snake River-Monument                 | 3.0     |            |        | 3.0   |
| 13C      | Bessie-Sunset Creek                  | 12.0    | -          |        | 12.0  |
| 137      | Mome-Osborne                         | 10.2    |            | 40 40° | 10.2  |
| 13K      | Besde-Buster                         | 7.3     |            |        | 7.3   |
| 18       | Kaltag-Kome                          |         |            | 280.   | 280.0 |
| 18A      | Ronanza-Kotzebne                     |         |            | 240.   | 240.0 |
| 18B      | Golovin-Council                      | ***     |            | 35.0   | 35.0  |
| 18J      | Spruce Creek                         | 1.5     |            |        | 1.5   |
| 21       | Unalakleet-St. Michael               |         |            | 68.0   | 68.0  |
| 250      | Nome-Mireless                        | .2      | -          | =#     | .2    |
| 25D      | Mouth of Center Craek                | 2.3     | grade      |        | 2.8   |
| 25DA     | Little Creek Branch                  | 2.2     | 100        |        | 2.2   |
| 25E      | Submarine-Paystreak                  | 3.0     | <b>***</b> | -      | 3.0   |
| 26       | Candle-Candle Crack                  | 7.3     | ••         | •      | 7.3   |
| ~y       | (Includes 26G: Candle Radio Road .3) | 103     |            | 2.4    | ***   |
| 26C      | Candle-Kiwalik                       | 49-49   | 18.        | -      | 18.0  |
| 27       | Deering-Irmachuk                     | 25.0    |            | 49.43  | 25.0  |
| 284      | Noze-Serpentine Hot Springs          | AND BUT | ***        | 148.0  | 148.0 |
| 41       | Kiana-Klery Creek                    |         | 6.0        | 6.0    | 12.0  |
| 414      | Kotsebue-Shungnak                    | -       |            | 200.0  | 200.0 |
| ALLA     | Kotsebue-Selavik-Shungnak            |         | **         | 131.0  | 131.0 |
| 418      | Kotsebue-Point Barrow                | -       | -          | 517.0  | 517.0 |
| Alf      | Kotzebue-Heatak                      | **      | -          | 125.0  | 12510 |
| 42       | St. Michael-Kotlik                   |         | -          | 63.0   | 63.0  |
| 42A      | Ungalik River                        | -       | 7.0        | **     | 7.0   |
| 62       | Dine Creek                           | -       | 9.0        | -      | 9.0   |
| 62A      | Haycock-Bear Creek                   |         | 22.0       |        | 22.0  |
| 67       | Nome Teller                          | -       | **         | 83.0   | 83.0  |
| 67A      | Teller-Cap Prince of Wales           | ***     | -          | 67.0   | 67.0  |
| 67B      | Teller-Bluestone                     | 15.5    | 2.5        | **     | 18.0  |
| 67C      | Teller-Pilgrim Hot Springs           | ***     | ***        | 48.0   | 48.0  |
| 670      | Teller-American River                |         |            | 35.0   | 35.0  |
| 673      | Tin City-Goodwin                     | 5.0     |            |        | 5.0   |
| -,,      | ware and A management                | ,       |            |        | 7.44  |

#### Summary of Sub-Projects, Nome District, 1945

|      |                            | Road  | 81ed<br>Road  | Trail  | Total<br>Wiles |
|------|----------------------------|-------|---------------|--------|----------------|
| 68   | Flagging Trails            |       |               |        |                |
| 73   | Marshall Road              | 4.0   |               | 4040   | 4.0            |
| 73A  | Ketlik-Warshall            |       |               | 143.0  | 148.0          |
| 738  | Stuyahek                   | ,     | 9.5           |        | 9.5            |
| 730  | Old Hamilton-Scammon Bay   |       | , <del></del> | - 89.0 | 89.0           |
| 89A  | Seward Peninsula Tram Road | 80.2  |               | -      | 80.2           |
| EAP8 | Bunker Hill-Kougarok       | 40.5  |               | ••     | .40.5          |
| 89C  | Iron Creek-American Creek  |       | 12.0          |        | 12.0           |
| 89D  | Iron Creek Road            |       | 7.5           |        | 7.5            |
|      | Total:                     | 345.7 | 112.0         | 2283.0 | 2740.7         |

#### SUMMARY OF SUB-PROJECTS

NOME DISTRICT

than me

| ,           | 1945                                 |            |        |        |       |
|-------------|--------------------------------------|------------|--------|--------|-------|
|             |                                      |            | Sled   |        | Total |
|             |                                      | Road       | Road   | Trail  | Miles |
| 8           | Nome-Council                         | 65.0       | 18.5   |        | 83.5  |
| න           | Gouncil-Ophir Creek                  | 12.0       | 4087   |        | 12.0  |
| 8H          | Casa de Paga                         | 20.0       |        |        | 20.0  |
| 87          | Shovel Creek                         | 5.0        | -      |        | 5.0   |
| 134         | Nome-Bessie                          | 3.2        |        |        | 3.2   |
| 13B         | Bessie-Snake River                   | 20.8       |        |        | 20.8  |
| 13BA        | Snake River-Monument                 | 3.0        |        |        | 3.0   |
| 13C         | Bessie-Sunset Creek                  | 12.0       |        |        | 12.0  |
| 13F         | Nome-Osborne                         | 10.2       | -      |        | 10.2  |
| 13K         | Bessie-Buster                        | 7.3        | -      |        | 7.3   |
| 18          | Kaltag-Nome                          | -          | -      | 280.   | 280.0 |
| 184         | Bonanza-Kotzebne                     | -          |        | 240.   | 240.0 |
| 18B         | Golovin-Council                      | **         | ***    | 35.0   | 35.0  |
| 18J         | Spruce Creek                         | 1.5        |        |        | 1.5   |
| 21          | Unalakleet-St. Michael               |            |        | 68.0   | 68.0  |
| 25C         | Nome-Wireless                        | .2         | -      |        | .2    |
| 25D         | Mouth of Center Creek                | 2.8        | -      |        | 2.8   |
| 25DA        | Little Creek Branch                  | 2.2        |        | -      | 2.2   |
| 25B         | Submarine-Paystreak                  | 3.0        | **     |        | 3.0   |
| 26          | Candle-Candle Creek                  | 7.3        |        | -      | 7.3   |
|             | (Includes 26G: Candle Radio Road .3) |            |        |        |       |
| 26C         | Candle-Kiwalik                       | 4          | 18.    | ,      | 18.0  |
| 27          | Deering-Inmachuk                     | 25.0       | MF-498 | -      | 25.0  |
| 284         | Nome-Serpentine Hot Springs          | -          | **     | 148.0  | 148.0 |
| 41          | Kiana-Klery Creek                    |            | 6.0    | 6.0    | 12.0  |
| 414         | Kotzebue-Shungnak                    |            |        | 200.0  | 200.0 |
| 4144        | Kotzebue-Selawik-Shungnak            | ***        |        | 131.0  | 131.0 |
| 41B         | Kotzebue-Point Barrow                |            | ***    | 517.0  | 517.0 |
| 41F         | Kotzebue-Neatak                      | -          | -      | 125.0  | 125.0 |
| 42          | St. Michael-Kotlik                   | ₩ <b>*</b> | ***    | 63.0   | 63.0  |
| 42A         | Ungalik River                        | ***        | 7.0    |        | 7.0   |
| 62          | Dime Creek                           | -          | 9.0    | -      | 9.0   |
| 62A         | Haycock-Bear Creek                   |            | 22.0   |        | 22.0  |
| 67          | Nome Teller                          | ***        |        | 83.0   | 83.0  |
| 67A         | Teller-Cap Prince of Wales           | -          | ••     | 67.0   | 67.0  |
| 678         | Teller-Bluestone                     | 15.5       | 2.5    | -      | 18.0  |
| 67C         | Teller-Pilgrim Hot Springs           |            | **     | 48.0   | 48.0  |
| 67D         | Teller-American River                |            |        | 35.0   | 35.0  |
| 67 <b>F</b> | Tin City-Goodwin                     | 5.0        | -      | 444.45 | 5.0   |

#### Summary of Sub-Projects, Nome District, 1945

|      |                            | Road  | Sled<br>Road | Trail  | Total<br>Wiles |
|------|----------------------------|-------|--------------|--------|----------------|
| 68   | Plagging Trails            |       |              | . •    | ,              |
| 73   | Marshall Road              | 4.0   |              |        | 4.0            |
| 73A  | Ketlik-Marshall            |       |              | 148-0  | 148.0          |
| 73B  | Stuyahek                   | -     | 9.5          | ***    | 9.5            |
| 73C  | Old Hamilton-Scammon Bay   |       |              | 89.0   | 89.0           |
| 894  | Seward Peninsula Tram Road | 80.2  |              |        | 80.2           |
| 89AB | Bunker Hill-Kougarok       | 40.5  | -            | **     | 40.5           |
| 89C  | Iron Creek-American Creek  |       | 12.0         | -      | 12.0           |
| 89D  | Iron Creek Road            |       | 7.5          | ~~     | 7.5            |
|      | Total:                     | 345.7 | 112.0        | 2283.0 | 2740.7         |

### UNITED STATES DEPARTMENT OF THE INTERIOR

#### ALASKA ROAD COMMISSION

JUNEAU, ALASKA

Nome, Alaska, May 8, 1946



Alaska Road Commission, Juneau, Alaska.

Gentlemen:

J. B.

Enclosed herewith is a Summary of Sub-projects in the Nome District, revised in accordance with Annual Report for 1944 and your letter of January 18, 1945.

RECEIVED
MAY 10 1946
Alaska Road Commission
Jennat, Alaska

977

Very truly yours,

E. F. Surber,

Divisional Chief Clerk.

#

#### SUMMARY OF SUB-PROJECTS NOME DISTRICT ALASKA ROAD COMMISSION.

77

|            | 1 9 4 5 (Roads & Trails only). |                   |                 |                        |  |
|------------|--------------------------------|-------------------|-----------------|------------------------|--|
| 8          | Nome-Council                   | 65                | 18 <del>1</del> | •                      |  |
| 8D         | Council-Ophir Creek            | · 12 <sub>,</sub> |                 | Dr. Dr.                |  |
| 8н         | Casa de Paga                   | 20                | -               | MAY 10 1946            |  |
| 8 <b>J</b> | Showel Creek                   | 5                 |                 | Aleska Road Commission |  |
| 13A        | Nome-Bessie                    | 3 <del>1</del>    | •               |                        |  |
| 13B        | Bessie-Snake River             | 20-3/4            |                 |                        |  |
| 13BA       | Sneke River-Monument           | 3                 |                 | t to 🗻                 |  |
| 13C        | Bessie-Sunset Creek            | 12                |                 |                        |  |
| 13F        | Nome-Osborne                   | $10\frac{1}{4}$   |                 |                        |  |
| 13K        | Bessie-Buster                  | $7\frac{1}{4}$    |                 |                        |  |
| 18         | Kaltag-Nome                    |                   |                 | 280                    |  |
| 18A        | Bonanza-Kotzebue               |                   |                 | <b>ন</b> †০            |  |
| 18B        | Golowin-Council                |                   |                 | <b>3</b> 5             |  |
| 18J        | Spruce Creek                   | 1 <del>1</del>    |                 | ·                      |  |
| 21         | Unalakleet-St. Michael         |                   |                 | 68                     |  |
| 25C        | Nome-Wireless                  | 14                |                 | •                      |  |
| 25D        | Mouth of Center Creek          | 2 <b>-</b> 3/4    |                 |                        |  |
| 25DA       | Little Creek Branch            | 2 <del>1</del>    | , .             |                        |  |
| 25E        | Submarine-Paystreak            | 3                 |                 |                        |  |
| 26         | Candle-Candle Creek            | 7                 |                 |                        |  |
| 26c        | Candle-Kiwalik                 |                   | 18              |                        |  |
| 27         | Deering-Inmachuk               | 25                |                 |                        |  |
| 28A        | Nome-Serpentine Hotsprings     |                   | ٠               | ្សា∤ន                  |  |
| 41         | Kiana-Klery Creek              |                   | 6               | 6                      |  |
| 41A        | Kotzebue-Shungnak              | . •               |                 | 200                    |  |

### (2) Summary of Sub-presects, Nome District, ARC, 1945.

| 41AA        | Kotzebue-Selawik-Shungnak                                      |                                | •         | 131  |
|-------------|--|--------------------------------|-----------|------|
| 41B-        | Kotzebue-Point Barrow  | • •                            |           | 517  |
| 41 <b>F</b> | Kotzebue-Noatak  | . 1                            |           | 125  |
| 42          | St. Michael-Kotlik   |                                |           | 63   |
| 42A         | Ungalik River Tractor Road                                     |                                | 7         |      |
| 62          | Dime Creek   |                                | 9         |      |
| 62A         | Haycock-Bear Creek   | •                              | 22        |      |
| 67          | Nome-Teller  |                                | ·         | 83   |
| 67A         | Tepler-Cape Prince of Wales                                    | •                              |           | 67   |
| 67B         | Teller-Bluestone   | 15 <del>½</del>                | 2분        |      |
| 67c         | Teller-Pilgrim Hot Springs                                     | •                              |           | 48   |
| <b>67</b> D | Teller-American River  | •                              |           | 35   |
| 67F         | Tin City-Goodwin   | 5                              |           |      |
| 68          | Flagging Trails (Mileage Vari                                  | es-                            | •         | •    |
| 73          | Marshall Road  | 4                              |           |      |
| 73A         | Kotlik-Marshall  |                                |           | 148  |
| 73B         | Stuyahok   |                                | 92        |      |
| √730        | Old Hamilton-Seammon Bay                                       | · ·                            |           | 89   |
| 89A         | Seward Peninsula Tram Road                                     | 80 <sup>1</sup> / <sub>4</sub> |           |      |
| 89AB        | Bunker Hill-Kougarok and bran<br>includes Coffee Creek Road, 2 |                                |           |      |
| 89C         | Iron Creek-American Creek                                      |                                | 12        |      |
| 89D -       | Iron Creek Road  |                                | <u>7₹</u> |      |
|             | Road<br>Sled Road<br>Trail                                     | 345 <b>-</b> 3/4               | 112       | 2283 |
|             | Total 2 710 75   |                                | •         | •    |

Total 2,740.75

#### SUMMARY OF SUB-PROJECTS

#### NOME DISTRICT

1945

|      | <u> </u>                    |  | 03. 1                   | · · ·   | Z.     |
|------|-----------------------------|--|-------------------------|---------|--------|
|      | •                           | Road   | Sled<br>Read            | Trail   | Juman  |
| 8    | Nome-Council                | 65   | 18景                     |         | - Jane |
| 8D   | Council-Ophir Creek         | 12   | 102                     |         |        |
| 8H   | Casa de Paga                | 20   |                         |         |        |
| 8J   | Shevel Creek                | 5_   |                         |         |        |
| 13A  | Neme-Bessie                 | 3 <sup>1</sup> / <sub>4</sub>                    |                         |         |        |
| 13B  | Bessie-Snake River          | 20-  |                         |         |        |
| 13BA | Snake River-Menument        | 3  | <b>2</b> / <del>T</del> |         |        |
| 13C  | Bessie-Sunset Creek         | 12   |                         |         |        |
| 13F  | Neme-Csberne                | $10\frac{1}{4}$                                  |                         |         |        |
| 13K  | Bessie-Buster               | $7^{\frac{7}{4}}$                                |                         |         |        |
| 18   | Kaltag-Neme                 | · •  |                         | 280     |        |
| 18A  | Benanza-Ketzebue            |  |                         | 240     |        |
| 18B  | Gelevin-Council             |  |                         | 35      |        |
| 18J  | Spruce Creek                | 1 <u>1</u> 2                                     |                         |         |        |
| 21   | Unalakleet-St. Michael      |  |                         | 68      |        |
| 25C  | Neme-Wireless               | <u>1</u>   |                         |         |        |
| 25D  | Mouth of Center Creek       | 2-   | 3/4                     |         |        |
| 25DA | Little Creek Branch         | $2\frac{1}{4}$                                   |                         |         |        |
| 25E  | Submarine-Paystreak         | 3  |                         |         |        |
| 26   | Candle-Candle Creek         | 2 <u>-</u><br>2 <u>-</u><br>2 <u>1</u><br>3<br>7 |                         |         |        |
| 26B  | Bear Creek Trail            | •  |                         | 45      |        |
| 26C  | Candle-Kiwalik              | •  | 18                      |         |        |
| 26G  | Candle Radie Read           | <u>1</u>   |                         |         |        |
| 27   | Deering-Inmachuk            | 25 -   |                         |         |        |
| 28   | Shelten-Candle              |  |                         | 152     |        |
| 28A  | Neme-Serpentine Het Springs |  |                         | 148     |        |
| 37   | Tepkek-Candle               |  |                         | 154     |        |
| 37A  | Bluff-White Mountain        |  |                         | 15      |        |
| 4i   | Kiana-Klery Creek           |  | 6                       | 15<br>6 |        |
| 414  | Ketzebue-Shungnak           |  |                         | 200     |        |
| 41AA | Ketzebue-Selawik-Shungnak   |  |                         | 131     |        |
| 41B  | Ketzebue-Peint Barrew       |  |                         | 517     |        |
| 41C  | Kiwalik-Neerwik             |  |                         | 100     |        |
| 41F  | Ketzebue-Neatak             |  |                         | 125     |        |
| 42   | St. Michael-Ketlik          | •  |                         | 63      |        |
| 42A  | Ungalik River               |  | 7                       | -       |        |
| 49   | Davidsen's Landing-Tayler   |  | 40                      |         |        |
| 62   | Dime Creek                  |  | 9                       |         |        |
| 62A  | Hayceck-Bear Creek          |  | 22                      |         |        |
| 67   | Nome-Teller                 |  |                         | 83      | •      |
| 67A  | Tepler-Cape Prince of Wales |  |                         | 67      |        |
| 67B  | Teller-Bluestene            | 15 <del>½</del>                                  | 2 <del>]</del>          | ·       |        |
| 67C  | Teller-Pilgrim Het Springs  | - ~  | ~                       | 48      |        |
| 67D  | Teller-American River       |  |                         | 35      |        |
| 67F  | Tin City-Goodwin            | 5  |                         |         |        |
| 67J  | Weeley-Geld Run             | -  |                         | 30      |        |
|      | =                           |  |                         |         |        |

(2) Summary of Sub-projects, Nome District 1945.

|      |   | Read            | Sled<br>Redd | Trail |
|------|---|-----------------|--------------|-------|
| 68   | Flagging Trails                                     |                 |              | 161   |
| 73   | Marshall Read                                       | 4               |              |       |
| 73A  | Ketlik-Marshall                                     |                 | -1           | 148   |
| 73B  | Stuyahek  |                 | 9호           | 00    |
| 73C  | Old Hamilton-Scamman Bay                            | 0.1             |              | 89    |
| 891  | Seward Peninsula Tram Read                          | $80\frac{1}{4}$ | <b>A</b>     |       |
| 89AB | Bunker Hill-Kougarek                                | 40-3            | /4           |       |
| 89C  | Iren Creek-American Creek                           |                 | 12           |       |
| 89D  | Iren Creek Read                                     |                 | 7 <u>ੜੇ</u>  |       |
|      | Tetal: Read 346 Miles. Sled Road 152 " Trail 2940 " |                 |              |       |

JUNEAU, ALASKA

Nome, Alaska, February 1, 1946

Subject: Recommended Program - Nome District - 1946.

To:

Alaska Road Commission, Juneau, Alaska.

| 1 | PEB<br>FEB | 1     | ીં!<br>⊹ે.46      | e P |
|---|------------|-------|-------------------|-----|
|   | Alaska R   | au, A | ommissio<br>laska | n t |

| Subproject.                      | Total    | J.P.     | L&M         | Field    |
|----------------------------------|----------|----------|-------------|----------|
| 8 Routes, Nome-Council.          | \$30,000 | \$10,000 | \$5,000     | \$15,000 |
| 13 \$ 25 Routes, Nome Lecals.    | 26,000   | 10,000   | 3,500       | 12,500   |
| Route 27, Deering-Immachuk.      | 5,000    | 1,000    | 500         | 3,500    |
| 67B, Teller-Bluestone.           | 4,000    | 400      | 60 <b>0</b> | 3,000    |
| 68, Flagging Trails.             | 2,000    | 300      | 600         | 1,100    |
| 89A, Seward Peninsula Tram Road. | 710°000  | 12,500   | 2,500       | 25,000   |
| 89AB, Buaker Hill-Kougarok.      | 40,000   | 17,000   | 3,000       | 20,000   |
| Misc. Roads & Trails             | 3,000    | 500      | 500         | 2,000@   |
|                                  | 150,000  | 51,700   | 16,200      | 82,100   |

John D. Hudert,

Superintendent.



911

JUNEAU, ALASKA

Nome, Alaska, February 13, 1946.

Subject: Recommendations for new work, Nome District, 1946.

To: Alaska Road Commission, Juneau, Alaska,

#### (1) Side Road.

At request and for use of U. S. S. R. & M. Co. Would give easy accessibility to Cape Horn Ditch Camp by car from Nome.

Starting at Mile 19 on the Snake River Road, thence approximately two miles over a low divide to the ditch camp. Follows ridges where material is good with adequate borrow for several low spots. Most of work can be done by tractor and dozer, with gravel surfacing placed by truck.

#### (2) Connecting Road.

Between Sunset Road, mile 3, and Snake River Road at Glacier Creek, Mile 9; two miles involved. This would eliminate excessive snow removal on Snake River Road, when requested to be opened for miners in the spring of the year. This would also make Snake River Road from mile 9 to 21 accessible for a longer period in both spring and fall. Good ground; most of work being done by tractor and dozer. Gravel surfacing by shovel and trucks.

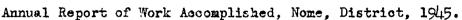
Respectfully submitted.

John D. Hudert, Superintendent.

### UNITED STATES

#### DEPARTMENT OF THE INTERIOR

ALASKA ROAD COMMISSION Nome, Alaska, JUNEAU, ALASKA January 19, 1946



Alaska Road Commission, Juneau, Alaska,



FORVICTORY

#### Route 8, Nome-Council.

Winter maintenance of first two miles to Beam Station by C.A.A. Final snow removal by A.R.C.

Snow Removal: Early, May 10, in cooperation with and by request of A.C.S., 16 miles. (D8 Caterpillar tractor and dozer contributed by A.C.S.).

Road washout at Peluk creek, Mile 1.5, necessitating a temporary bridge until culverts could be opened. Excessive glaciering in this area and at Hastings creek. Gravel fill with machine, to replace washed out material and for raising existing road grade at Peluk creek, 168 ou, yds.

Ferry: At Safety, in operation from June 1 to October 20. At Bonanza, " " June 7 to October 26.

Gravel Haul: By machine, 1270 cu. yds.

By hand, 110 cu. yds. at approach to Bonanza ferry and on sandy spots for 1-1/4 miles west of ferry.

Maintenance: By motor grader, 97 miles, Mile 0 to 21. 11 " 33 to 42. 9

Some freighting was done by miners between East Fork and Council, and maintenance work was done by those using the road at no cost to A.R.C.

End of season: Culverts cleaned and missing culvert markers replaced, also stakes along road for snow removal - Mile 1 to 12.

#### Route 8D, Council-Ophir.

Inspection 8/17/45. Condition of road very poor and no arrangements had been made for maintenance. An attempt was made to remedy this condition by sending two dump trucks and one tractor with dozer on September 7. This equipment to be left there for future use.

Mile 1 & 2: Road widened, grade raised and surface graveled. Gravel haul: Machine (trap), 1200 cu. yds. Culverts, repaired, 1.

Installed, 3 - 20" by 15. (110 gal. steel drums used). Ditches: Cleaned and widened.

Equipment did not last as anticipated. Broke down and Two rebuilt motors and one more dump truck major repairs needed. to be delivered in time for maintenance operations in 1946. dredges expected to be working during the coming season.

(1)



JUNEAU, ALASKA

Annual Report of Work Accomplished, Nome District, 1945.

#### Route 8H, Casa de Paga.

No work done. Necessary to be done, as stated in 1944 report, still advisable.

#### Route 13B, Nome-Bessie.

All year maintenance by Army.

In cooperation with U. S. S. R. & M. Co. road from their main office to machine shops was graveled. Gravel haul, machine, 725 cu. yds. Cost paid for by Co.

End of season: Cleaning culverts, replacing culvert markers and also road stakes for snow removal.

#### Route 13B, Bessie-Snake River.

General maintenance.

Snow removal: Early in spring at request of miners. Mile 3 to 9. Gravel haul: Machine, 704 cu. yds. Gravel trap was constructed at Mile 9.

Maintenance: Motor grader, 14 miles, Mile 1 to 19. Culverts cleaned.

End of season: Replaced missing culvert stakes, also stakes along road for snow removal, mile 3 to 9.

#### Route 13C, Bessie-Sunset Creek.

General maintenance.

Snow removal: In early spring, May 20, for purpose of observing ice jams at 8-mile bridge over Snake river. Ice blasting necessary for protection of bridge, May 28.

Gravel haul: Machine, 1000 cu. yds.

Maintenance: Meter grader, 16 miles, Mile 1 to 8.

Ditching: Cleaning and widening ditches for 3/4 mile in Mile 2. End of Season: Culverts cleaned and culvert markers replaced, also stakes along road for snow removal, Mile 3 to 8.

#### Route 13F, Nome-Osborne.

General maintenance.

Snow removal: Done by Army, Mile 1 to 3.

Gravel haul: Machine, 20 cu. yds. to repair washout at Mile 1. End of season: Replaced missing culvert markers, also stakes along road for snow removal, Mile 1 to 5.



JUNEAU, ALASKA

Annual Report of Work Accomplished, Nome District, 1945.

#### Route 13K, Bessie-Buster.

Heavy snow removal in conjunction with Army, Mile 1 to 8.

" " " sooperation with public, Mile 8 to 10.

Gravel haul: Machine, 3160 cu. yds. between Mile 1 and 7.

Grading: Motor grader, 10 miles, between Mile 1 and 7.

Maintenance: Motor grader, 54 miles, Mile 1 to 11.

Improvement, Mile 8 to 11: Ditching, 3 miles by machine,
580 cu. yds. Raising grade and widening. Subgrade completed,
3 miles. Surfacing: Gravel haul, machine, 220 cu. yds. 1-1/2
miles completed, Mile 9-1/2 to 11. Culverts installed, 2 - 15"
X 20' galvanized.

N.B. This project not completed as shovel operator was moved to replace injured Loco. driver on Tramway. No suitable operator could be found to operate Loco. or shovel. Crew also used for loading ears with material for use on Tramway and building for Serpentine Het Springs. Used because of shortage of labor.

End of season: Culverts and ditches cleaned, missing culvert markers replaced and also stakes along road for snow removal, Mile 1 to 8.

#### Route 13M, Nome Depot.

Leveling area for future building; gravel, machine, 20 cu. yds. General cleanup in and around buildings; partitions and shelves removed from equipment storage building, and all broken window glass replaced.

#### # Route 25C, Neme-Wireless.

Road improved and maintained by Army during spring and summer. Winter maintenance by A.R.C. to aid transportation facilities, also in case of fire. ACS contributed the use of a D8 Caterpillar tractor and dozer.

Route 25D, Center Creek Road. 25DA, Little Creek Branch. 25E, Submarine-Paystreak.

(Maintained all year by Army and (Contractors. No work by A.R.C. (on these routes.

#### Route 25L, Nome Aviation Field.

No work on field by A.R.C. but in very good condition.

Small section of road built to give further access to field and to be used as detour in winter in case of excessive drifting of mow on Bessie road in rear of Munz hangar.

Gravel haul: Machine, 238 cu. yds.



JUNEAU, ALASKA

Annual Report of Work Accomplished, Nome District, 1945.

#### Route 25N, Nome City Streets.

Maintenance and snow removel done by Army and Contractors. Upon request, and because emergency existed, road was put in to the rear of N. C. Store. Existing road had been washed out by storm. Cost paid for by N. C. Co.

On request and in cooperation with A.T.G. gravel fill brought in for leveling lot for future headquarters. Gravel haul: Machine, 222 ou. yds. A.T.G. funds.

#### Route 26, Candle-Candle Creek.

Arctic Circle Exploration Co. overseeing maintenance and changes on this road, as well as doing most of the work. One dump truck and pull grader furnished by A.R.C.

To eliminate continued washouts, road relocated and heavy fill placed at Mile 1. Other relocations on tailing piles to suit the needs of those involved. For heavy work Arctic Circle Exploration Co. used their shovel with 3/4 yd. dragline bucket.

Road inspection in August and found to be in poor condition, respecially at small bridges. This showed insufficient maintenance.

Dredging and hydraulic mining being done along the road.

In view of anticipated expansion of mining operations it might be recommended at this time to surface the last mile of existing read and to extend the length of road one mile.

#### Route 26C, Candle-Kiwalik.

Maintenance and repair to bridges and their approaches at Mud creek, Minnehaha creek, and Virginia Creek. Work done by local miners and cost paid by A.R.C.

Extensive and promising mining operations anticipated near this trail and it is recommended by this office that a suitable road might be built to take care of mining needs. Miners benefiting from this road are willing to cooperate and contribute towards its construction. Two miles involved.

#### Route 27, Deering-Inmachuk.

Maintenance operation from June 17 to October 12.

Snow removal: Heavy drifts; 8008 in Mile 14, 400° in Mile 16, and 600° in Mile 19.

Grading: By hand, 5-1/2 miles.

Gravel load: By hand, 2422 cu. yds.

Gravel spreading; By hand, 8000 cu. yds.

Gravel load: By machine, 172 cu. ydds.

#### UNITED STATES DEPARTMENT OF THE INTERIOR



ALASKA ROAD COMMISSION
JUNEAU, ALASKA

Annual Report of Work Accomplished. Nome District, 1945.

#### Route 27, Deering-Immachuk, cont'd.

Ditching: By hand, 400, 30 cu. yds.

Culverts installed: 5 - 20" X 20', hydraulic pipe furnished by Dry Creek Dredging Co.

1 - 18" X 20', galvanized.

1 - 12" X 201,

1 - 12" X 12" X 16', timber,

Culverts repaired; 1, Bridges repaired, 1.

Maintenance: Truck and pull grader, 27-1/2 miles, Mile 0 to 13-1/2.

Relocations were made in Miles 2,6,14 and 15.

N.B. Because of erosion from Inmachuk river relocations were necessary at various points in Miles 2,6,14 and 15. Bulk of work was done at these points.

Inspection made in August found the read in good condition.

Mining operations also being done along this read.

Would recommend that further study be made of river action
on read so that a final relocation could be made that would eliminate
further trouble from this cause.

#### Route 67, Nome-Teller.

Operated ferries at Penny and Cripple rivers,

#### Route 67B, Teller-Bluestone.

General maintenance: A.R.C. equipment, 1 dump truck, 1 pull grader. Snow removal: Between Mile 13 and 14. Culverts and ditches cleaned. Gravel haul: By hand 250 cu. yds. Culverts installed: 3 - 12" X 16', galvanized. Maintenance, road: Tractor and pull grader, 13 miles, Mile 0 to 13. Inspection in July, road in good condition.

#### Route 67C, Teller-Pilgrim Hot Springs.

Usual temporary staking by A.R.C.

#### Route 68, Flagging Trails.

Usual amount, about 200 miles, of ice staking done by A.R.C. A few bundles of flagged lath was furnished the Army to mark danger spots in the Little Creek area where main roads skirt make declivities left by old dredging operations, also temporary tractor trails to installations not accessable by road during the winter months; about 10 miles in all.



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#### Route 89A, Seward Peninsula Tram Road.

Maintenance operations from June 8 to October 22.

Work consisted of renowal of 1500 plus ties, inspecting and making repairs to bridges, and raising and leveling track at numerous places from Little Creek to Eunker Hill, also clearing of brush on curves for further sight distance.

A 300° siding was added at Little Creek terminus.

Heavy drifting and glaciering in many places made progress slow from Little Creek to Mile 34. Tractor and dozer used for snow removal but removal of glaciers had to be done by hand. Glaciering very bad at Mile 27 and also several washouts in this mile, on relocated section. removal started June 8 and completed by July 4. Track in very bad condition from Mile 47-1/2 to 70 and considerable planking had to be placed under ties to level the track. Tundra fire from Mile 66 to 76 burnt out quite a few ties and several small bridges, but damage was not as bad as expected. Equipment borrowed from Army, as authorized, but was in poor sondition. Breakdowns were continuous and about two weeks lest because The Army also cooperated by furnishing salvage lumber for use in leveling tracks but not enough could be obtained to complete the work entirely and satisfactorily. The worst spots were the only ones repaired in the last tea miles. Further delay of about 5 days was caused in looking for more lumber. Accident to loce. No. 2, which got out of contrel due to breaking of universal joint at Mile 7 and backed down to Mile 5.8 where it jumped the track. Operator injured in jumping off loco, but not seriously. Cab smashed beyond repair but other than that wehicle seemed to be all right. Another cab obtained from Army and necessary repairs to be made during winter as it was considered by this office to be our obligation to restore this vehicle to its original status, before turning it back to them.

Bulk-head constructed at east end of Iron Creek Bridge, in repair and further protection from flood and ice conditions during the thaw period. Material necessary to fill behind bulkhead, 150 cu. yds., pushed in by cat and dozer. Dyke 500° plus upstream, washed out in spring and this was replaced in a different location, as time did not allow to replace it as it originally was. Fill made with tractor and dezer, 800 cu. yds. Tranway opened to Bunker Hill for freighting September 12, and all freighting completed by October 9, About 400 tons involved. Due to unprecendented weather conditions and breakdown of equipment crew was stranded at 27 mile, and equipment at various points along Four mem came in to Nome by dog sled, and rest brought All equipment, including stranded vehicles, in later by snew jeep. protected for the winter.

-Respectfully submitted;



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#### Route 89AB, Bunker Hill-Kougarek.

No equipment available for maintenance of read.

Time did not permit repair of equipment at Bunker Hill, but a thorough survey was made of the equipment to determine repair parts that would be needed. Heavy parts were then shipped by tram and as many of the smaller parts as could be obtained. One truck in very poor condition returned to Nome and another sent back to replace it. Equipment at Bunker Hill; 2 dump trucks, 1 model K, A-C Tractor, 1 Byers shovel, 1 pall grader, 1 pickup, and 1 piledriver hoist and engine. Trucks and pickup stored in warehouse and balance of equipment protected for winter. Early repairs planned for this equipment, for its anticipated use on road maintenance for 1946.

Respectfully submitted,

John D. Hudert, Superintendent.