

# 2940

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Diag. - Cht. No. 8551-1

ON 1908  
SEP 28 1908  
STATIONERY AND ARITHMETIC  
U.S. GOVERNMENT

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

*O. S. Tuttleman*  
Superintendent.

State: *Alaska*

C. & G. SURVEY.  
LIBRARY AND ARCHIVE  
SEP 28 1908  
ACC. NO.

## DESCRIPTIVE REPORT.

*Topo on*  
*Hyd.* Sheet No. *2940*

LOCALITY:

*Arca Inlet,*  
*Prince William Sound*

1908

CHIEF OF PARTY:

*Gilbert F. Rude*

# 2940a 2940b 2940c

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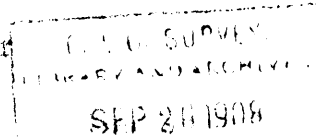
POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

# 2940

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY



## DESCRIPTIVE REPORT

to accompany Hydrographic Sheet

of

ORCA INLET,

1908.

Alaska.

Gilbert T. Rude,

Chief of Party.

In supplementing the Hydrography of Orca Inlet, it was considered easier and better to run a regular system of lines rather than attempt to fill in between lines of a previous survey, as the former would make a more complete survey, and in the same length of time. The lines were run Normal to the shoreline wherever practicable and a few check lines were run parallel to the shoreline. Nothing startling was found as to rocks or shoals, but a close system of regular lines was run on account of the growth of the town of Cordova and its growing importance, as all the large steamers on the run stop here: S.S. Northwestern; Santa Clara; Pennsylvania; Bertha; Portland; Yucatan and many large freight steamers and steam schooners, with freight and lumber for the Copper River and Northwestern R.R. Co. which has headquarters at Cordova.

Current observations were made, one day off Orca Wharf

2.

and one day off Cordova Wharf. Observations covering a longer period would have been taken, but it would have materially delayed the party on the Hinchinbrook Island work.

Orca Salmon Cannery, owned by the Northwestern Fisheries Co. is located on the East shore of Orca Inlet, directly opposite Observation Island. The Cannery Company operate two flat bottom stern wheel steamers to transport the catch of salmon from the Copper River flats to their Orca plant.

There is water piped to the end of the dock and could be obtained by vessels by making arrangements with the Superintendent of the Cannery.

There is 10 feet (mean lower low water) at outer end of present Dock., but the Company intend building out to 18 feet next season.

Cordova, the terminus and headquarters of the Copper River and Northwestern R.R. Co. is located in a small valley between Orca Inlet and Eyak Lake. Its population is about 450, considerably augmented in summer by the employees of the R.R. Co., with a payroll of 1200.

The town has grown considerably in the past few months since the Railroad has chosen it as headquarters instead of Katalla. There are three doctors; three drug stores; a hospital; meat market; grocery stores; dry goods, and hardware stores, but as yet no ships chandlery. The Company has a large and substantial wharf about 300 feet long on the East shore of the Inlet, one half mile North of Spike Island,

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with 30 feet along outer end. They intend lengthening it 400 feet to Northward and work has begun on the new part.

It is planned to move the entire town to a location opposite Spike Island and along the Railroad one half mile from the dock. It has been surveyed, streets graded and considerable building has already been done.

On the East shore of Orca Inlet and about 2 and 1/2 miles North of Orca Cannery, there is a sawmill which saws about 10,000 feet of lumber daily. It was put into operation about the first of May, 1908. The Company is known as the Cordova Electric, Telephone and Mill Co. They intend utilizing the water power of the creek, on which the mill is located, to operate an electric light plant, for furnishing electric light for the town of Cordova. This creek is known as Humpback; Anmoktok ( Indian name for Humpback ) and Power Creek. The Mill Co. has given it the name "Power", but it is known locally as "Humpback Creek".

From Capt. Moore of the S.S. "Bertha" it was learned that there is very little ice in Orca Inlet during the winter season, only a little along the shores and nothing to interfere with steamers.

I would respectfully recommend that buoys be placed in Odiak Channel at its narrowest part, one on North and one on South side, as Steamers bound for Seattle, being light, could use this channel instead of going up Orca Inlet and rounding North of North Island on the way out, thereby saving about a five mile run. Capt. Blaine of the Alaska

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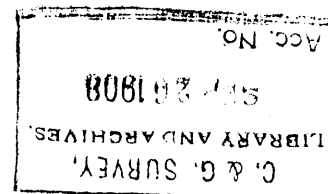
S. S. Co's. "Pennsylvania" requested information concerning this channel and spoke of using it if it were buoyed.

Respectfully submitted,

*Gilbert J. Rude*

Chief of Party.

S H E E T   A A



Locality: Prince William Sound, Alaska.

Sublocality: Orca Inlet.

Topography supplemented by: Eoline R. Hand, Asst.

Inked by: Eoline R. Hand, Asst.

Hydrography supplemented by: Gilbert T. Rude, Asst.

Positions plotted by: F.G.Engle, Aid.

Soundings plotted by: Gilbert T. Rude, Asst. and F. G. Engle.

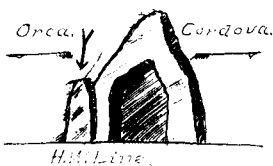
PLANE TABLE POSITIONS

to accompany

Sheet AA, Orca, Inlet

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Objects	$\phi$	D.M.	$\lambda$	D.P.	Remarks
Rock	67° 32'	1410	145° 46'	827	60 m. W of S.W. end Spike Id. Can be occupied at L.W.
Tree	60° 32'	1390	145° 46'	763	Trunk dead tree, 2 1/2' diam, edge Spike Id nearest above rock.
Stem	60° 32'	1622	145° 46'	551	NE end Spike Id, cannot be recovered.
Twin	60° 33'	1233	145° 48'	408	Cannot be recovered.
Gable	60° 33'	370	145 45'	754	N Gable Large Wharf (1908) house, Cordova outer dock.
Wash	60° 33'	1688	145° 45'	27	Cannot be recovered.
Low	60° 34'	1819	145° 46'	343	Cannot be recovered.
Coe	60° 34'	1277	145° 43'	363	Gable at Carpenter shop: "ORCA" painted be low.
Hang	60° 35'	307	145° 42'	714	Cannot be recovered.
North Rock	60° 36'	1058	145° 44'	02	Highest point, can be occupied at L.W.
Saw	60° 36'	1651	145° 41'	224	Cannot be recovered.
Moss	60° 37'	790	145° 43'	654	Almost coincident with <del>▲</del> <i>▲</i> <del>▲</del> , cannot be recovered.
End	60° 32'	1377	145° 51'	213	Cannot be recovered.
Pil	60° 34'	419	145° 44'	410	Pillar at N side peculiar formation, resembling Church entrance. (See accompanying sketch)

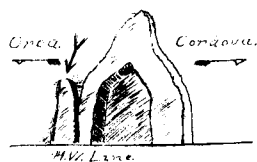


PLANE TABLE POSITIONS

to accompany

Sheet A A, Orca, Inlet

Objects	$\phi$	D.M.	$\lambda$	D.P.	Remarks
Rook	67° 32'	1410	145° 46'	827	60 m. W of S.W. end Spike Id. Can be occupied at L.W.
Tree	60° 32'	1390	145° 46'	763	Trunk dead tree, 2 1/2' diam, edge Spike Id nearest above rock.
Stem	60° 32'	1622	145° 46'	551	NE end Spike Id, cannot be recovered.
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Gable	60° 33'	370	145° 45'	754	N Gable Large Wharf (1908) house, Cordova outer dock.
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Coe	60° 34'	1277	145° 43'	363	Gable at Carpenter shop; "ORCA" painted be low.
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Saw	60° 36'	1651	145° 41'	224	Cannot be recovered.
Moss	60° 37'	790	145° 43'	654	Almost coincident with $\triangle$ North Id, cannot be recovered.
End	60° 38'	1377	145° 51'	213	Cannot be recovered.
Pil	60° 34'	419	145° 44'	410	Pillar at N side peculiar formation, resembling Church entrance. (See accompanying sketch)





Hyd Sheet No. 2940

Nov. 7, 1908.

The ground is fairly well covered with the exception of the area between the east shore and the 36 ft curve, and the broken ground south of Spike Id.

The shoal making across Odisak Channel north west of O'Pack should have been more carefully examined also the rock northeast of North Id.

In the records the beginning and end of lines were not described and the course not always given.

Dec. 12, 1908.

H. L. Simmons

Refer to my orders, dated March 7, 1908, containing the paragraph: "The Supplemental hydrography wanted is indicated by pencil lines on the projection, now in preparation and which will be mailed to you at Seattle as soon as completed."

The 36 fathom curve is so close to the east shore that no further development is ~~is~~ necessary, and would have consumed time, valuable to the other parts of the survey.

Gilbert J. Rude

Pos. 37a (blue) is correctly plotted from the Asst. Chief of Party sounding record, but the two 26 foot soundings have been completely discredited by the close development of H. 5035. The line as plotted shows a speed of 4 knots by the dinghy which is improbable. There is no reasonable basis for determining the correct location of pos. 37 and all of the soundings after pos. 36 have been rejected by order of Chief, F.R. Sect.

E. P. Ellis Jan. 3, 1931

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SEP 26 1908  
Rec. No.

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

*O. Tuttmann*  
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

*Topography and  
Hydrographic*

Sheet No. *2940*

LOCALITY:

*Orca Inlet  
Prince William  
Sound*

*1908*

CHIEF OF PARTY:

*Gilbert T. Rude*

2940

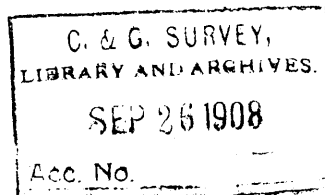
Department of Commerce and Labor

Alaska.

June 1908.

DESCRIPTIVE REPORT to ACCOMPANY TOPOGRAPHIC

Sheet of Orca Inlet  
Asst. Gilbert T. Rude,  
Chief of Party.



Topography by  
Asst. Eoline R. Hand.

The salient points as traced on the projection issued, were tested and found correct enough for all practical purposes.

The Northwestern Fisheries Co. has a salmon cannery located at Orca, which is just East of Observation Id. They will pack 40,000 cases of 48 cans each in season of 1908: there is a Post Office at Orca, also a general store conducted by the company.

North of Orca 2 1/2 miles, at mouth of Power Creek, a saw mill has recently been put in operation: there is a considerable fall of water which will be used later as motive power for the mill and possibly to generate electricity for Cordova: a partial use of water power is also made at Orca cannery.

The timber of this region is spruce and hemlock almost entirely, it is very thick, is good saw timber and greatly resembles the growth in Southeastern Alaska.

The shore line is chiefly precipitous cliffs of from 20 to 80 ft. in height; the heavily wooded islands, together with the country on the W, side of the Inlet, is comparatively low, not rising much above 400 feet, while on the East side the mountains rise abruptly to an elevation of about 2500 feet.

At the South end of Orca Inlet, on the E. shore and at end

## Department of Commerce and Labor

of part navigable for large steamers, the Copper River and North-western R.R. has a large wharf; the line runs to Cordova, about 1 1/2 mi., then along the shore of Eyak lake. About 25 miles of this line have been completed but its ultimate terminus is the Bonanza Copper Mines region, reached by following the valleys of the Copper and Chitina rivers. It is expected that this road will be completed in 1910, together with a branch line to the coal fields at Catalla.

Cordova, situated back in the valley between the inlet and Lake Eyak, is the headquarters of this R.R. and has a population of around 450, considerably augmented at this season by the employes of the R.R. company, it having a payroll of over 1200. It is planned to move the entire town to a location opposite Spike Id., and it is here that the office for the new Government Cable will be located.

Mention should be made of the fact that nearly all the surrounding country is staked for copper.

*Oliver P. Hand*  
Asst. C. & G. Survey.

Approved:

*Gilbert J. Rude*

Asst. C. & G. Survey.

Chief of Party.

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Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

*O. A. Tittmann*  
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

*Hydro* Sheet No. *2940<sup>b</sup>*

LOCALITY:

*Orca New Wharf*

1909

CHIEF OF PARTY:

*G. J. Rude*

2940

NEW WHARF, ORCA, ALASKA. Built in May, 1909.

This sheet is for the purpose of locating the new wharf built by the North Western Fisheries Company at Orca, Alaska.

COAST AND  
GEODETIC SURVEY  
JUN 29 1909  
REFERRED TO:

Station Coe is the gable of the carpenter shop at the above company's fishery. The plane table was set up under this gable and a line drawn to station <sup>new</sup> Root; the wharf was then drawn as shown. The old wharf is still standing and in use but the company contemplates tearing it down during the coming summer.

This sheet is to be adjusted to H2940 combined topographic and hydrographic sheet of Orca Inlet.

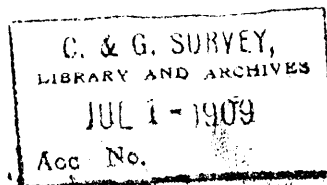
*C.M. Code  
aid.*

*May 31, 1909.*

*Approved.*

*Gilbert J. Rude*

*Asst. Chief of Party.*



**2940<sup>b</sup>**

2940c

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Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

\_\_\_\_\_  
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

*Hyd.* Sheet No. *2940c*

LOCALITY:  
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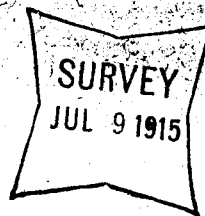
CHIEF OF PARTY:  
\_\_\_\_\_

POST-OFFICE ADDRESS: Steamer Taku, Cordova, Alaska.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

*Descriptive Report  
Hyd. 2940 C*



Assistant in Charge

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

On board Str. Taku, June 28th, 1915.

To the Superintendent,  
U. S. Coast & Geodetic Survey,  
Washington, D. C.



*Rev. & A. DIV.  
U.S. COAST PILOT*

Sir:-

CHART CONSTRUCTION

I have the honor to forward herewith for the information of the Coast Pilot and Chart Divisions a supplemental hydrographic and topographic sheet of Orca, Alaska, showing the new dock and sounding lines made by the party under my charge, May 28th, 1915.

Not having the geographical positions for the astronomical station nor triangulation station Nibsy on Observation Island, no projection was made. These points were used in the survey and with them the survey may be adjusted to the topographic sheet of this locality, work done by my party in 1908.

I am also forwarding by same mail, in separate package, a sounding record in which no tidal reductions have been made. Not having any tidal data at hand no tide staff was established but the relation of the height of the water to a tidal bench mark on the beach at Orca was ascertained just before and after making the soundings. A note in reference to this will be found on Page 2 of the sounding record. The bench mark used was the one established by my party in 1908. I do not know the number of it. However, it was the one established by my party in 1908 and is a copper bolt leaded into the top surface of the rocky beach.

This bench mark is on the beach in range with the smokestack of the cannery and the west gable of the fish butchering house. If I remember correctly this range was mentioned in the description of this bench mark made by my party in 1908. If this bench mark cannot be identified at the office I would respectfully request that tidal data of this station be furnished me and I will identify the bench mark and advise you.

Respectfully,

*Gilbert J. Rude*

GTR:K

Chief of Party, C. & G. Survey.



VEC  
Aug. 18, 1915.

HYDROGRAPHIC SHEET 2940<sup>c</sup>.

L. P. S.

Orca Inlet, Prince William Sound, Alaska, by Assistant  
Gilbert T. Rude in 1915.

TIDES.

	Orca ft.
Mean lower low water, or plane of reference on staff	7.7
Lowest tide observed " "	4.0
Highest " " " "	23.2
Mean range of tide	9.9