

2157-2158-2159

See Top 2124

Diag. Cht. No. 8002-1

2157-2158-2159  
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<p>Form 504</p> <p>U. S. COAST AND GEODETIC SURVEY</p> <p>DEPARTMENT OF COMMERCE</p> <p><b>DESCRIPTIVE REPORT</b></p>	
Type of Survey	<i>Hydrographic</i>
Field No.	<i>2157. 2158</i>
Office No.	<i>2159. 2124</i>
LOCALITY	
State	<i>Alaska</i>
General locality	<i>Yakutat</i>
Locality	<i>Bay</i>
	<i>1897</i>
	<i>194</i>
CHIEF OF PARTY	
<i>Giles B. Heavner.</i>	
LIBRARY & ARCHIVES	
DATE	

2158

COAST AND GEODETIC SURVEY  
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83  
SHA-  
2158  
1892

Department of Commerce and Labor

COAST AND GEODETIC SURVEY

J C Mendenhall

Superintendent.

State: Alaska

DESCRIPTIVE REPORT.

Hyd Sheet No. 2158

LOCALITY:

Yakutat Bay

See SHA 2157

1892  
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CHIEF OF PARTY:

G B Harber

2158

# 2159

U.S. COAST AND GEODETIC SURVEY  
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1892

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

*JC Mendenhall*  
Superintendent.

State: *Alaska*

## DESCRIPTIVE REPORT.

*Hyd C Sheet No 2159*

LOCALITY:

*Yakutat Bay*  
*See SHA 2157*

*1892*  
*190*

CHIEF OF PARTY:

*GB Harber*

# 2159

83  
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Top: 2124

2157-2158-2159

2124

U. S. COAST AND GEODETIC SURVEY

*T. C. Mendenhall*, Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

*Hydrographic Sheets Nos. 2157,  
2158 & 2159.*

*Topographic sheet no. 2124.*

LOCALITY:

*Yakutat Bay.*

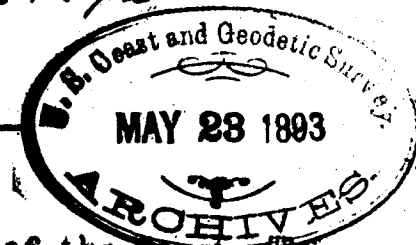
1892.

CHIEF OF PARTY:

*Dr. Giles B. Hearber, U.S.N.*

U. S. C. S. Survey Steamer Albatross  
Descriptive Report - S. Alaska. 1872

YAKUTAT BAY. DESCRIPTION OF



Yakutat Bay is a deep and wide indentation of the coast. The entrance to which lies between Ocean Cape, Lat.  $59^{\circ}32'35''$  North, Long.  $139^{\circ}51'13''$  West, and Pt. Manby, Lat.  $59^{\circ}41'38''$  North, Long.  $140^{\circ}18'19''$  West, a distance of 16.5 miles. Outside of a line between these points, at a distance of from two to three miles, extends a remarkable ridge over which there are but from ten to seventeen fathoms of water. This ridge is very narrow on top; the water rapidly deepening to over Thirty fms. on either side, except near the Pt. Manby shore. Near Ocean Cape it curves to the Nd. and E. and joins the shoaler water extending from this Cape. Within the ridge, the Bay forms a quadrilateral extending inland about twenty-four miles to Pt. Latouche. The bottom is very irregular, generally ranging from fifty to seventy fms., though soundings of twenty, thirty, and one hundred fms. were obtained. It is however clear of islands and dangerous shoals except along the Eastern part. A line drawn N.  $3/4$  E. from Pt. Carrow, (a point  $1\frac{1}{4}$  mile North of Ocean Cape) will meet the North shore of the Bay at a point near Knight Island, about sixteen miles from Ocean Cape, and to the Eastward of this line will

he found all the islands of the Bay and all the very shoal places are found between these islands or extending from them as hereafter mentioned.

The waters of the Bay are generally clear except along the Western shore where the Glacial streams produce a grayish discoloration. Sometimes this discolored water extends entirely over the Bay even into the waters behind the islands near the Eastern shore.

The islands and islets near the Eastern shore are low and densely wooded. The main shore is also densely wooded nearly to the waters edge, - is hilly, - the elevations ranging from fifty to one hundred feet. The Northern shore from Eleanor Cove to Pt. Latouche, a low peak the South end of Ferrar Passage, is mountainous, the land rising abruptly almost from the waters edge. Its general direction from opposite West end of Knight Island is N.W. Three miles to N.W. of Knight Id. is a white bluff with perpendicular face about forty feet high. This part of the shore may be approached from the Southwest without fear, but to the Northwest of this bluff it should be approached with great caution, as there are numerous patches of foul ground extending out from the shore. The distance from Knight Id. to Pt. Latouche is nine miles.

The West shore of Yakutat Bay is generally a low sand beach with numerous Glacial streams immediately behind, which eventually combine and enter the Bay as rivers, one at Pt. Manby, to the Westward of it, one at 4 1/2 miles, one at 7 1/2 miles, and one at twelve miles to the Northeast of this point. Small boats may enter these in good weather at high water. The mouths of these streams and the adjacent portions of the beach undergo considerable change with every storm from Southerly points.

About sixteen miles Northeast by North from Pt. Manby there is a very low slowly rounding point (probably Blizhni Pt. of Tebenkoff) extending some distance into the Bay. Up to this point the water line is fairly straight having but slight indentations or projections. The water deepens gradually to the Twenty fathom curve which lies about 1 1/2 miles off shore. There are no outlying dangers, though off the mouths of the rivers sand bars make out from 1/4 to 1/2 mile. With the use of the hand lead vessels may approach any part of this coast. There is usually a heavy surf rolling in upon the beach rendering it dangerous for boats to land except when the wind is between West and Northeast, and even then care and skill must be exercised.

Northward of Blizhni Pt. to the foot hills opposite Pt. Latouche 3

the beach has much the same appearance. The streams entering the Bay are numerous and some are quite broad. The shore recedes about 3/4 mile and the bight thus formed was so filled with icebergs and floating ice from May to September in 1892 that neither the Hassler nor boats could safely approach nearer than 1 1/2 miles, except at rare intervals. A reconnaissance in boat, from Blizhni Pt. to the head of the Bay showed a gradually shelving bottom, and there were no indications of kelp or foul ground. At Pt. Manby, and for five miles to Northeast, the shore is well wooded chiefly with Spruce. Beyond this it is practically bare, though a few bushes grow along the edges of the Glacial streams, to near Blizhni Pt. where bushes (Alders) become nearly continuous and spread out, gradually extending back to the front of the Glacier field.

The Great Malaspina Glacier descends to within about four miles of Pt. Manby, and to within about two miles of the water near Blizhni Pt. In front of it are masses of boulders and Glacial debris, through crevasses in which, the ice is in many places clearly seen during latter part of summer. A few boulders and mounds of debris extend to the front of the Glacier, but there are none of importance near the shoreline.

The land in the vicinity of Ocean Cape is generally low and well 4



wooded to near the high water mark. Three bluffs, from fifty to seventy feet in height, near the extremity, form an unmistakable landmark for the entrance of the Bay. Near the Cape the beach is stony, with a few boulders, and at low water a few rocks uncover about 1/8 mile from the beach. The long and usually heavy Ocean swell makes the coast a very forbidding one in appearance, and boats may not approach it in ordinary weather. No dangers however are known to exist outside the three fathom line which is about 1/4 mile off shore, to the Southward of the Cape, increasing to 1/2 mile to the Westward of it, between Ocean Cape and Pt. Carrew. From the Southwest extremity of the Cape the shore line turns sharply to the Northward then curving slightly to the Westward and again to the Northward and Eastward reaches Pt. Carrew at a distance of 1 1/4 miles. The formation of the bottom off this point causes the line of breakers to appear well off shore even in fair weather.

form  
to show  
what  
to be

DeMonti Bay, with its adjuncts, - Port Mulgrave and Rurik Harbor, affords the only convenient and safe anchorages to be found in this vicinity. Its entrance, 1 1/2 miles wide, lies between Pt. Carrew and Khantaak Island, - the largest of the numerous islands in this locality. It extends about two miles in an Easterly direction then bending to Northeast by East for 1 1/2 miles ends 5

in a cove 1/4 mile wide. The water is deep, from twenty-five to forty fathoms. Immediately inside of Pt. Carrew there is a beach of shingle and fine sand extending 1 1/4 miles to the mouth of Ankau Creek, marked at Eastern entrance by a bluff forty feet high. Off this beach the bottom shoals regularly, and in ordinary weather an anchorage may be obtained in from eight to fifteen fathoms of water.

Ankau Creek is simply the entrance and outlet of a considerable body of water within the Cape Phipps Peninsula. 1 1/2 fathoms may be carried near the Southeast shore through the creek. Within, there are numerous small islands and shoals. At proper seasons these waters are well filled with trout, salmon, and are frequented by ducks, though not in large numbers. Beyond Ankau Creek the South shore line is wooded, two bluffs breaking its otherwise low shore. The beach is partly shingle, partly boulders, and is "steep to." A few rocks are uncovered at low water close to the shore, but under ordinary circumstances would not be dangerous. At the extreme end of the Bay there is a sand beach off which bottom is found in from fifteen to twenty-five fathoms, and this is the best place to take in <sup>fresh</sup> water. Near the center of the sand beach is the outlet of a considerable stream from which the Hassler obtained clear, sweet water during the entire summer (1892). 6

The shore line then turns to the Westward for  $3/4$  mile to Arrecifes Pt., on the South side of which are the Mission school house and dwellings, and on the Northwest side lies the Indian village of a dozen houses, giving shelter during the winter months to about one hundred and fifty persons. The traders store is a log building a short distance to the Eastward of the village. The Northern, or Khantaak Id. shore of the Bay is wooded opposite Pt. Carrew, but the tongue of sand called Pt. Turner is merely covered with grasses, low bushes, and strawberry plants. The sea is continually washing away the face of this island which is composed chiefly of sand, though boulders large and small are found along the beach. A rocky ledge extends for nearly half a mile off Southwest Pt. of Khantaak Id. and another extends for nearly  $1/4$  mile to the Southward of Pt. Turner. This latter should be given a good berth as its proximity cannot be determined with the lead, from twenty-three to thirty fathoms being found very near it. In ordinary weather, however, the line of breakers extending along this shore is a sufficient guide. The ten fathom line is usually from two to three cable lengths from low water line.

Khantaak Id. lying to the Northward of Pt. Carrew extends nearly North and South; is about Five miles long and the extreme width from Southwest Pt. to Pt. Turner is  $1\frac{3}{4}$  miles. It is well wooded except at the extremities, - Northeast Pt. and Pt. Turner, which are scarcely more than sand spits covered with grass and strawberry plants. It is low except near Southwest Pt. where the face toward Yakutat Bay is a bluff about Seventy feet high. The height gradually decreases toward Pt. Turner. The Eastern shore of this island is very irregular in outline and in Southeast part has deep indentations. Trees and bushes grow to the water's edge. The Western shore is a wave line fairly regular, the beach of large stones or small boulders. The three fathom line runs from  $\frac{1}{8}$  to  $\frac{1}{4}$  mile from water's edge. Off Northeast Pt. a rocky ledge or reef extends in a Northwest direction for about  $1\frac{1}{2}$  miles.

Between Khantaak Id. and the main shore to the Eastward are numerous islands and shoals. The channels between these are not navigable at low water except by small vessels, though the enclosed bodies of water are from Twenty to over One Hundred fms. deep. About one third the distance from Pt. Turner to Arrecife's Pt. and in line between them, lies Southeast shoal

composed of shingle and small boulders. At dead low water the exposed portion is about Two hundred yards across. It uncovers at 1/4 ebb tide, and except at highest water a few of the larger stones at the Southwest portion show above water. From the main shoal a narrow ridge with Two fms. at low water extends

*1/4 mile* toward Pt. Turner for about (1 1/2 cable lengths.) At a distance of (2 1/2 cables) Northwest by North from the center of the shoal are Two rocks which are just awash at lowest water of spring tides. There is <sup>from</sup> One to Two fms. water between the shoal and rocks. Just off Pt. Turner (to the North and East) and separated from it by a very narrow passage is Middle shoal.

It is awash at 1/4 ebb tide. At low water the uncovered portion is about Two hundred yards long extending West by North and East by South, and One hundred yards wide.

Northwest shoal is composed of rocks and moderately large boulders. It extends Southeast by South from the second point of Khantaak Id. almost to Middle shoal, from which it is separated at low water by an irregular channel having less than One fathom of water. At high water only two or three of the larger boulders near the middle of the shoal remain visible.

From Piedras point rocky ledges extend to the Southeast for 1/4

mile, the outer portion being awash at lowest water springs.

Port Mulgrave is formed by Pt. Turner on the South and West and by a point of Khantaak Id. and Northwest shoal to the North and East. It is about  $3/4$  mile long and less than  $1/4$  mile wide, and only about One cable wide at low water. The beach on the Pt. Turner side is of sand, and shelving gradually to a little beyond low water mark, when the water deepens rapidly to about ten fathoms. The entrance is through the very narrow passage between Pt. Turner and Middle shoal, about Sixty feet at low water. The banks, however, are "steep to" and vessels hugging the Pt. Turner shore have no difficulty in entering. The anchorage is best off the three houses which are all that remain of the Indian village formerly on this site. The use of this anchorage is not recommended and there seems to be no good reason for using it at all.

Between the shoals off Khantaak Id. and the main land adjoining the present site of the Indian village is a broad expanse of water from five to twenty-five fms. deep, muddy bottom, in almost any part of which a vessel may anchor.

The entrance to it is between Southeast shoal and Pt. Arrecifes, a channel nearly half a mile wide and from ten to twenty fms.

deep, - rocky bottom. The mail steamer and trading vessels anchor in five to ten fms. a little to the Northward of the village and this is an excellent berth for any vessel. (Care being taken to keep clear of the shoal, covered at high water, lying in front of the small islet to the Northward of this point of the main land, and the rocky ledge in front of the village, connected with but extending one hundred yards off shore.) To this anchorage ground I have given the name Yakutat Roads.

Rurik Harbor is the name applied to the small bight or indentation, the entrance to which is between Northwest Shoal and Piedras Pt. It is but a small bight having from ten to thirteen fathoms in center, clear of dangers.

To the Northward of Rurik Harbor is a large indentation 1/2 mile wide at its entrance and extending in a Northwesterly direction 1 1/4 miles. The head of this bight is separated from the open water of Yakutat Bay by a rocky ridge only sixty feet wide and ten feet above high water. The shores are wooded to the water's edge and the banks are "steep to", having from twenty to twenty-five fms. of water at one cable length from shore. From the Northern entrance of this bight, a semi-circle of islets and

shoals extends to the main land near Arrecifes Pt. Between these there are practically but two channels at low water.

The deeper and safer, having a least depth of  $2 \frac{1}{2}$  fms. lies between the first and second islets nearest to above mentioned bight; the second having least depth of  $1 \frac{1}{2}$  fms. lies to the Eastward of the third islet.

To the Eastward of these channels there is a considerable body of water stretching about  $\frac{3}{4}$  mile to the main shore which contains several islets and a few shoals with, however, deep water about them. In the Southeast portion of it is Puget Cove, - a small indentation  $\frac{1}{2}$  mile deep, two cables wide at entrance, with three to ten fms. of water. From Puget Cove a channel from  $\frac{1}{4}$  to  $\frac{1}{2}$  mile broad extends along the main shore in a N. N. E. direction for about  $1 \frac{1}{2}$  miles then turns to N. W. by W. between Dolgoi Id. and smaller islands to Westward for one mile, then again N. N. E. for  $1 \frac{1}{2}$  miles into open water near the Northward end of Khantaak Id. This is probably what is known as Johnstone Passage. It is clear of dangers and has from ten to 0 fms. of water. At the distance of  $1 \frac{1}{2}$  miles from Puget Cove, there is a very narrow passage having seven feet at low water at entrance and extending in a general East by North



direction for  $3/4$  mile when it opens into a large bay commencing One mile Southeast from this passage, and extending to the North main shore of Yakutat Bay, a distance of about eleven miles.

It is of varying width, being bounded on the East by the irregular main shore, and on the West by Dolgoi, Kriwoi, Otmeloi, Krutoi and Knight Islands and the shoals between these islands.

In this bay are two small islands near the South West end; from the North end of the Northern<sup>most</sup> a reef extends  $1/8$  mile.

Deep water is found close to shore and in the central portions the depth is from sixty to One hundred and nine fms. The main shore line is irregular. At the extreme Southwest end of the bay, a bight  $1/4$  mile wide extends  $1/2$  mile to Eastward having depth of water of eleven to thirty fms. Two miles North by East of this bight is another, nearly  $3/4$  mile deep and of equal width in which an anchorage may be had in from five to twenty-five fms. A little foul ground is found near the extreme East end. From the Northern entrance of this bight or cove the main shore line runs in a general N.  $1/2$  E. direction to Eleanor Cove, a bight extending to E. N. E. for one mile, the entrance being about  $1 1/4$  miles. A small island lies near the middle of entrance and three islets lie near the bottom of the cove. Foul ground

extends about these islands rendering the cove an unsafe anchorage.

From the South side of Otmeloi Id. rocky ledges extend a short distance. To the Northward of Otmeloi Id. a reef extends  $1/4$  mile and foul ground, showing occasional boulders awash at low water, extends to the North and East for  $1\ 1/4$  miles, then turns to Northwest, the edge passing Krutoi Id.  $1/4$  mile to the Northward of it; very deep water is found close to this foul ground which late in the summer is marked by a field of kelp. To the Westward of Kriwoi, Otmeloi, Krutoi and Knight Islands, foul ground extends from  $1\ 1/2$  to two miles. There is deep water between Dolgoi and Kriwoi islands also between Krutoi and Knight Islands, but vessels endeavoring to make either of these passages would be in danger except in the latter part of the summer when the growing kelp would render it comparatively easy to avoid the foul ground.

From the bottom of Eleanor Cove to the Westward end of Knight island, - a distance of four miles, the main shore extends W. N. W.  $1/2$  W. with slight indentations. The channel between main shore and Knight Id. is from four to six cables wide, with banks "steep to". The water is from thirty to seventy fms. deep. About  $3/4$  mile from the Western entrance of this channel, the

Hassler found an anchorage off a small sand beach on the Knight Island side, in sixteen fathoms of water, eighty yards off shore. At one hundred yards off shore the water was thirty fathoms.

## SCHEDULE OF HYDROGRAPHIC SUBJECTS.

1.- Yakutat Bay- S. E. Alaska.

(Statistics of Work Enclosed)

2.- See "Description of Yakutat Bay" , "De Monti Bay" &c.

A small steamer belonging to the North American <sup>Commercial</sup> Co. plying between Sitka and Unalaska carries freight, mail and passengers stops for a few hours in Yakutat Roads, both outward bound and return. Round trips are made once a month from April to October. A larger steamer is promised for this route. Sailing schooners often call here for water and sometimes for natives for sealing. Several small schooners touched for trade with the natives in 1892.

3.- Mountain ranges *bearing* numerous glaciers first appear

When within ten to twelve miles of Ocean Cape the low, wooded land near the waters edge appears. In thick weather Ocean Cape should be approached with caution, and the Coasting lead used in rounding the Cape, which should be kept about one mile distant. Three bluff 50 to 80 feet high with bare faces mark Ocean Cape the westernmost forming the point of the Cape.

4.- Channels deep. No dangers except shoals as mentioned in description of Bay. No pilots.

- 5.- Channels permanent. Do not cross shifting bars, rocky or hard bottom. Best anchorage in Yakutat Roads., to Northward of Indian Village.
- 6.- The tidal currents set fair with the channels, but are very irregular in force, apparently affected by the winds outside. Current observations were not obtained. Greatest current in channel between South East shoal and Arrecifes Point, about one and one quarter knots per hour.
- 8.- Large quantities of ice coming from Hubbard Glacier and at times many icebergs of considerable size are scattered over the entire Bay, most thickly near the Western Shore. In general but little ice comes outside of Blizhni Pt. To the Northward of this point the ice is usually too thick for navigating along the west shore, but near the East shore it was always clear enough to permit any vessel to reach Point Latouche. But little foggy weather was seen from May to September.
- 9.- Prevailing winds were from W. S. W. and E. S. E. the former bringing fine or fair weather the latter rain or storm. The proportion of fair to rainy days was about four to five.
- 10.- No wrecks recorded. No life saving stations. No hospitals or Doctors.

- 12.- Fresh water taken in by ships boats. Best place for water is at bottom of Cove to Eastward of Arrcifes pt.
- 13.- None.
- 14.- None.
15. None.
- 16.- None.
- 17.- One monthly steamer each way between Sitka and Unalaska. Accommodations very poor. Nearest established Post Office at Sitka.
- 18.- At Sitka.
- 19.- Indian Village near Arrcifes Pt. Three native houses on Khantaak Island, shore of Port Mulgrave.
- 20.- Off North Eastern Point of Khantaak Id. and over the shores mentioned between this and Knight Island; also along shore to N. W. of Knight to near Pt. Latouche. They cover rocky bottom and are most conspicuous in July and August.

#### SAILING DIRECTIONS.

FOR DE MONTI BAY. Bring Ocean Cape bearing E. at a distance of from one to 2 miles. Stear N. (to clear the heavt swell and surf rollers which often extend for nearly two miles N. W. of

Pt. Carrew) for about 3 miles. A course S. E. x E. one half E. should then carry a vessel in mid channel fairly into De Monti Bay. The Khantaak Id. shore should not be approached too closely, especially near Pt. Turner off which a rocky Hedge extends to the Southward for nearly  $1/4$  mile. The South shore may be approached without fear to about Two hundred yards.

FOR YAKUTAT ROADS. Being off Ankau Creek (say  $1/2$  mile) steer for the Mission School House ( a large two story building which cannot be mistaken, near Arrecifes Pt.) until this point is about  $1/2$  mile distant, then steer N.  $1/2$  W. to anchorage N. W. of Indian Village. A rocky point extends in front of Village 100 yards. There are shoals covered at high water near shore beyond the village but with care and use of hard lead, they may be approached and anchorage obtained in 10 to 15 fathoms of water.

FOR PORT MULGRAVE. When S. E. and Middle shoals show above water, Port Mulgrave may be entered safely, though to do so is not recommended. Keeping rather more than one quarter mile from the shore, bring the extreme Eastern part of Pt. Turner to bear due North. Then round the point very close. The beach

in of pure sand and so steep that there is no danger of grounding.  
Having passed the point a course N. W. x W.  $3\frac{1}{4}$  W. leads to the  
middle of the basin off the remaining houses of a former village.

The Cove at bottom of De Monti Bay may be entered freely  
to near the sand beach. Anchorage in 20 to 24 fms. of water.

*Respectfully*

*Gilbert H. Barber*

*Lt. Comdr.*

Forwarded

*12/19*

*F. Moser*

Lt Comdr, U. S. N.,

Hydrographic Inspector C. & G. Survey.



Applied to 10:000 scale plan of F455 3-19-'45 M.H.