



3428

C. & G. SURVEY,
LIBRARY AND ARCHIVES
JAN 26 1914
Acc. No.

J. 3428

3428

3428

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent.

State: _____

DESCRIPTIVE REPORT.

Top Sheet No. *3428*

LOCALITY:

191

CHIEF OF PARTY:

Alaska.

Gilbert T. Rude, 1913.

Department of Commerce and Labor

DESCRIPTIVE REPORT

To Accompany

Topographic Sheet No. ³⁴²⁸ "D", of Port Gravina, Alaska.

Triangulation was carried into the Bay from Point Johnstone and Makaka. Three repetitions with a ten inch Gambey were used for the long lines and six repetitions with a seven inch Berger for the short lines.

The topography was started on a scale of $20,000^1$, using plane table No. 109. Before this sheet could be finished the party was ordered to drop the work and proceed to Passage Canal.

All the stations including the topographic ones were well marked and described so that the succeeding party can readily pick up the work where this Sheet was left off.

This work was done in Launch "41", from a camp in Comfort Cove.

Many of the peaks on the east shore of Port Gravina were determined both as to location and elevation but no contours sketched as the work was suspended before being able to do this.

The shore line is rocky and offers no difficulty for plane table work. The mountain tops are sharp and distinct and bare rock. The trees extending only a short way up the slopes, 900 to 1000 feet.

The scale is one to twenty thousand.

All names are taken from chart 8550.

Respectfully submitted,

Gilbert T. Rude.

Alaska.

Gilbert T. Rude, 1913.

Department of Commerce and Labor

DESCRIPTIVE REPORT

To Accompany

Topographic Sheet No. "D", of Port Gravina, Alaska.

Triangulation was carried into the Bay from Point Johnstone and Makaka. Three repetitions with a ten inch Gambey were used for the long lines and six repetitions with a seven inch Berger for the short lines.

The topography was started on a scale of $20,000^1$, using plane table No. 109. Before this sheet could be finished the party was ordered to drop the work and proceed to Passage Canal.

All the stations including the topographic ones were well marked and described so that the succeeding party can readily pick up the work where this Sheet was left off.

This work was done in Launch "41", from a camp in Comfort Cove.

Many of the peaks on the east shore of Port Gravina were determined both as to location and elevation but no contours sketched as the work was suspended before being able to do this.

The shore line is rocky and offers no difficulty for plane table work. The mountain tops are sharp and distinct and bare rock. The trees extending only a short way up the slopes, 900 to 1000 feet.

The scale is one to twenty thousand.

All names are taken from chart 8550.

Respectfully submitted,

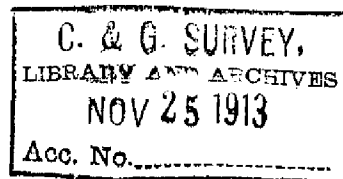
Gilbert T. Rude.

List of Topographic Stations, Sheet No. D.

Object	Latitude	D. M.	Longitude	D. P.
My	60 43	613	146 10	855
Bird	60 43	1663	146 09	480
Fish	60 44	632	146 09	65
Can	60 44	974	146 08	422
Bite	60 44	922	146 07	774
Square	60 44	126	146 08	461
Jail	60 44	1494	146 06	587

(To accompany description report
of Top. 3428)

Top. 3428



Description of topographic stations
to accompany topographic sheet
of ~~Port~~ Port Gravina, P.W. Id., Alaska.

Stn. Taku. 1913

G. T. Rude, Comdg.

Alaska.

G. T. Rude

1913

Topographic Station, L A D.

Banners nailed to a prominent high large dead tree on High Water line of south point of entrance to St. Mathews Bay, Prince William Sound, Alaska.

It is also the east point of entrance to the lagoon.

Alaska

G. T. Rude

1913

Topographic Station R O O T.

Banner on the tip of the grassy point on west shore of Port Gravina,
Prince Willaim Sound, Alaska. At this point the shore line turns into Olsen
Bay.

Alaska

G. T. Rude

1913.

Topographic Station B L O W.

Banner on grassy top of rocky point on east shore of Gravina Bay, Prince William Sound, Alaska, and about midway between Gravina Island and Comfort Cove. It is the point under the first high mountain on the east shore. Also is the N. point of the bight.

Alaska.

G. T. Rude

1913.

Topographic Station W O O D.

White-washed spot on rocky cliff of east shore of Gravina Bay, Prince William Sound, Alaska, and on point nearly midway between Gravina Is. and Gravina Rock.

Alaska

G. T. Rude

1913

Topographic Station T W I S T.

Twisted banner nailed to lone dead stump on point of east shore of Gravina Bay, Prince William Sound, Alaska, opposite Olsen Bay.

Alaska

G. T. Rude

1913.

Topographic Station W E T.

White-washed point of north shore of entrance to Olsen Bay, Prince William Sound, Alaska.

Topographic Station S M E L L.

Target on the north end large bare rock off the north shore of Olsen Bay^{entrance}, G. Bay Prince William Sound, Alaska. The rock is about $\frac{1}{2}$ way from the line of rocks and islands to the point where the shore line turns north into the head of the bay.

Marked by a triangulation mark placed in a depression and a rock put over it.

Topographic Station M Y

Flag on the south end of the large rock off north shore of entrance to Port Gravina, Prince William Sound, Alaska Olsen Bay. The rock is covered with bushes and grasses.

Topographic Station B I R D.

White-wash on face of point on west shore of bay back of Parshas Settlement, Port Gravina, Prince William Sound, Alaska. The top of the point is a flat surface about 15' x 8'. It has a perpendicular face.

About 150 meters Southeast is a rock 5 meters off shore covered with grass and bushes and on which is a tall dead tree.

Alaska

G. T. Rude

1913

Topographic Station F I S H

White-wash spot on cliff of west shore of bay back of Parsha Settlement, Prince William Sound, Alaska.

Topographic Station C A N.

White-wash on second point of stream on west side of the head of bay back of Parshas Settlement, Port Gravina, Prince William Sound, Alaska.

Topographic Station B I T E?

White-wash on face of prominent point on east side of head of Bay back of Parshas Settlement, Port Gravina, Prince William Sound, Alaska. The point is almost an island. A half dead tree is over the station and its roots are partly exposed.

Topographic Station S Q U A R E.

Flag and whitewash on square rock of last point on east side entering Bay back of Parsha Settlement, Port Gravina, Prince William Sound, Alaska, that sees Triangulation Station Parsha.

Mark is square hole 4" sq. and 2" deep.

Topographic Station R A P.

Cloth wrapped around dead stump 5' high on point of west shore, Gravina Bay, Prince William Sound, Alaska, directly opposite from the Island 800 meters S. of Comfort Cove.

Stump stands out prominently up and down the bay. It is also the first point north of the one from which the group of Is. make off.

Alaska

G. T. Rude

1913

Topographic Station S T E E P L E.

Whitewash on face of dome shaped cliff of point off east shore of Gravina Bay, Prince William Sound, Alaska, and opposite south end of southward of the 2 islands north of Comfort Cove. A dead tree trunk stands on the edge of cliff over the station and at peak of dome.

A group of dead trees are on the point back of station.

Topographic Station P L O T.

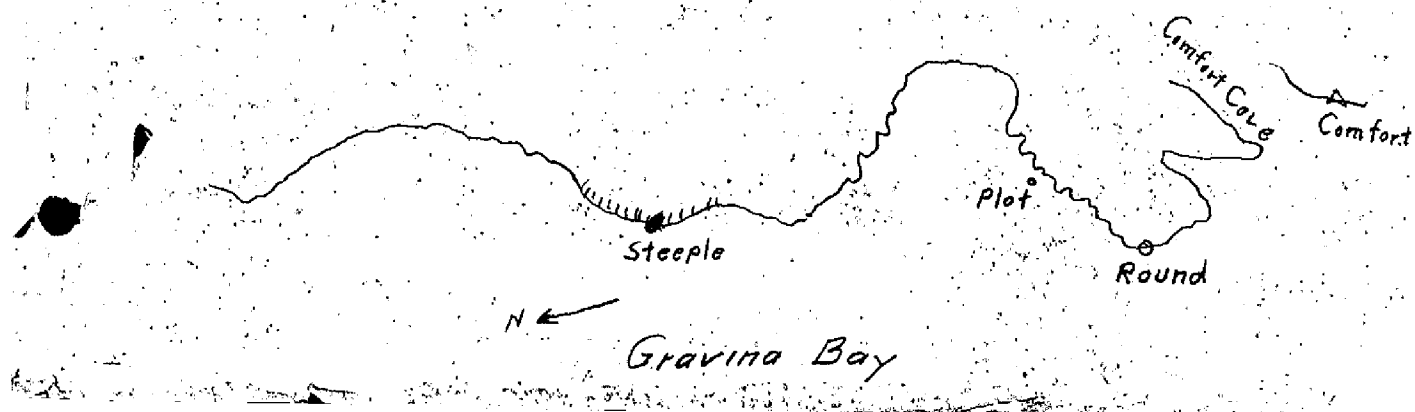
In center of the depression of the top of rocksoff southeast shore of second small bight of east shore of Gravina Bay, Prince William Sound, Alaska, north of Comfort Cove.

About 50 meters south is a rock with a pinnacle on top of which is grass. The grass plot is 1' sq.

Topographic Station R O U N D.

Whitewash on high cliff of north corner of round point of east shore of Port Gravina, Prince William Sound, Alaska. It is the second point from Comfort, about 100 meters south the shore line turns into the first bight north of Comfort Cove.

A fallen tree trunk projects 4' over the cliff above the station.



Alaska

G. T. Rude

1913.

Topographic Station T I M E

Flag over small depression in center of large yellow topped rock 15 meters off north end of the southward of the 2 islands $\frac{1}{2}$ mile north of Comfort Cove, Gravina Bay, Prince William Sound, Alaska. 100 meters north is another large rock. 100 meters south is a third rock with grass on its top.

Alaska.

G. T. Rude

1913.

Topographic Station B E A R

Banner on peak of hummock of point of south shore of entrance to Bear-trap Bay, Port Gravina, Prince William Sound, Alaska. It is the first point that shows up the bay. A blazed white dead tree is distant 4.2 meters. A blazed dead tree having branches and bark is distant 6.5 meters. An 8" diameter live tree is distant 8.3 meters.

Alaska

G. T. Rude

1913.

Topographic Station J A I L.

Banner nailed to log lying perpendicular to shore line on rounding ^{gravel} point of west shore of Port Gravina, Prince William Sound, Alaska. The point is opposite the island off east shore and two thirds the way from Comfort Cove to Beartrap Bay.

A pile of rocks three feet high was made around bottom of pole and reaches up to the log. A triangle was blazed in top of log for station mark.

Alaska.

G. T. Rude

1913

Topographic Station L A D.

Banners nailed to a prominent high large dead tree on high water line of south point of entrance to St. Mathews Bay, Prince William Sound, Alaska. It is also the east point of entrance to the lagoon.

Alaska

G. T. Rude

1913

Topographic Station R O O T.

Banner on the tip of the grassy point on west shore of Port Gravina,
Prince William Sound, Alaska. At this point the shore line turns into Olsen
Bay.

Alaska

G. T. Rude

1913.

Topographic Station B L O W.

Banner on grassy top of rocky point on east shore of Gravina Bay, Prince William Sound, Alaska, and about midway between Gravina Island and Comfort Cove. It is the point under the first high mountain on the east shore. Also is the N. point of the point.

Alaska.

G. T. Rude

1913.

Topographic Station W O O D.

White-washed spot on rocky cliff of east shore of Gravina Bay, Prince William Sound, Alaska, and on point nearly midway between Gravina Is. and Gravina Rock.

Alaska

G. T. Rude

1913

Topographic Station T W I S T.

Twisted banner nailed to lone dead stump on point of east shore of Gravina Bay, Prince William Sound, Alaska, opposite Olsen Bay.

Alaska

G. T. Rude

1913.

Topographic Station W E T.

White-washed point of north shore of entrance to Olsen Bay, Prince William Sound, Alaska.

Topographic Station S M E L L.

Target on the north end large bare rock off the north shore of ^{entrance} Olsen Bay, G. Bay Prince William Sound, Alaska. The rock is about $\frac{1}{2}$ way from the line of rocks and islands to the point where the shore line turns north into the head of the bay.

Marked by a triangulation mark placed in a depression and a rock put over it.

Topographic Station M Y

Flag on the south end of the large rock off north shore of entrance to Port Gravina, Prince William Sound, Alaska Olsen Bay. The rock is covered with brushes and grasses.

Topographic Station B I R D.

White-wash on face of point on west shore of bay back of Parshas Settlement, Port Gravina, Prince William Sound, Alaska. The top of the point is a flat surface about 15' x 8'. It has a perpendicular face.

About 150 meters Southeast is a rock 5 meters off shore covered with grass and bushes and on which is a tall dead tree.

Alaska

G. T. Rude

1913

Topographic Station F I S H

White-wash spot on cliff of west shore of bay back of Parsha Settlement, Prince William Sound, Alaska.

Topographic Station C A N.

White-wash on second point of stream on west side of the head of bay back of Parshas Settlement, Port Gravina, Prince William Sound, Alaska.

Topographic Station B I T E

White-wash on face of prominent point on east side of head of Bay back of Parshas Settlement, Port Gravina, Prince William Sound, Alaska. The point is almost an island. A half dead tree is over the station and its roots are partly exposed.

Topographic Station S Q U A R E.

Flag and whitewash on square rock of last point on east side entering Bay back of Parsha Settlement, Port Gravina, Prince William Sound, Alaska, that sees Triangulation Station Parsha.

Mark is square hole 4" sq. and 2" deep.

Topographic Station R A P.

Cloth wrapped around dead stump 5' high on point of west shore, Gravina Bay, Prince William Sound, Alaska, directly opposite from the Island 800 meters S. of Comfort Cove.

Stump stands out prominently up and down the bay. It is also the first point north of the one from which the group of Is. make off.

Alaska

G. T. Rude

1913

Topographic Station S T E E P L E.

Whitewash on face of dome shaped cliff of point of east shore of Gravina Bay, Prince William Sound, Alaska, and opposite south end of southward of the 2 islands north of Comfort Cove. A dead tree trunk stands on the edge of cliff over the station and at peak of dome.

A group of dead trees are on the point back of station.

Topographic Station P L O T.

In center of the depression of the top of rock off southeast shore of second small bight of east shore of Gravina Bay, Prince William Sound, Alaska, north of Comfort Cove.

About 50 meters south is a rock with a pinnacle on top of which is grass. The grass plot is 1' sq.

Topographic Station R O U N D.

Whitewash on high cliff of north corner of round point of east shore of Port Gravina, Prince William Sound, Alaska. It is the second point from Comfort, about 100 meters south the shore line turns into the first bight north of Comfort Cove.

A fallen tree trunk projects 4' over the cliff above the station.

Alaska

G. T. Rude

1913.

Topographic Station T I M E

Flag over small depression in center of large yellow topped rock 15 meters off north end of the southward of the 2 islands $\frac{1}{2}$ mile north of Comfort Cove, Gravina Bay, Prince William Sound, Alaska. 100 meters north is another large rock. 100 meters south is a third rock with grass on its top.

Alaska.

C. T. Rude

1913.

Topographic Station B E A R

Banner on peak of hummock of point of south shore of entrance to Bear-trap Bay, Port Gravina, Prince William Sound, Alaska. It is the first point that shows up the bay. A blazed white dead tree is distant 4.2 meters. A blazed dead tree having branches and bark is distant 6.5 meters. An 8" diameter live tree is distant 8.3 meters.

Alaska

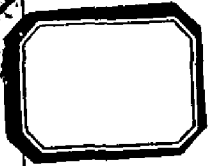
H. T. Rude

1913.

Topographic Station J A I-L.

Banner nailed to log lying perpendicular to shore line on ^{gravel} rounding point of west shore of Port Gravina, Prince William Sound, Alaska. The point is opposite the island off east shore and two thirds the way from Comfort Cove to Beartrap Bay.

A pile of rocks three feet high was made around bottom of pole and reaches up to the log. A triangle was blazed in top of log for station mark.



3428 C

C. & G. SURVEY
L. & A.
APR 11 1916
Ass. No.

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: _____

11-5613

DESCRIPTIVE REPORT.

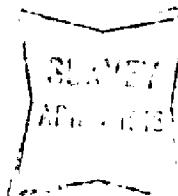
Sheet No. 3428 ~~440~~

LOCALITY:

191

CHIEF OF PARTY:

1916



3428 *mm*

C. & G. SURVEY
L. & A.
APR 11 1916
Acc. No.

Sheet 3428 mm

PLANE TABLE SURVEY OF

PORT GRAVINA BAY, PRINCE WILLIAM SOUND

ALASKA, 1915.

PLANE TABLE SURVEY OF
PORT GRAVINA BAY, PRINCE WILLIAM SOUND,
ALASKA - 1915.

This survey was made during June and July 1915 and was done on a sheet sent out from the office which had on it the shore line of Parsha Bay without contours to any extent. This shore line extended for about five miles.

Signals were erected over the old triangulation station and the survey begun. It was tried in every case possible to do the work by the three point location and to avoid traversing as much as possible. Traverses and plane table triangulation were necessary in surveying the heads of Comfort Cove, Beartrap Bay, head of Gravina Bay, Parsha Bay, Oleson Bay, and St. Mathews Bay, all of which came on this sheet. In all cases the traverses and triangulation were checked whenever possible by azimuths from any triangulation station available.

The contouring was done by cutting in the mountain peaks by three or more cuts with elevations figured from estimated high water mark and all elevations are given above such plane of reference. After the peaks were cut in, the contours were sketched from the stations where the best view points could be had likewise the courses of the creeks were located. The latter were located in most cases by an azimuth from commanding point. The tree line was sketched in while the survey was being made and helped to give a true picture of how the locality really looks.

The Nature of the Country

This region varies a great deal in its general appearance in different sections of the survey. Between Comfort Cove and Beartrap Bay, the coast has a gradual slope up to a low range of heavily wooded hills, while in back of these is a range of rugged and irregular shaped mountains, whose peaks are sharp and jagged. During the whole year, snow patches stay on these peaks. They are an iron gray color with no signs of any sort of growth.

At the entrance to Beartrap Bay on the south side, the slope of the hills is gradual, while on the north side it starts rather steep from the shore line. As you enter the bay and go toward its head the shore line becomes more bold until you reach a place about one-quarter ^{mile} from the head where on one side of the bay the shore line has an almost sheer drop for two or three hundred feet. At the head of Beartrap Bay there is a draw into the mountains and where this draw begins the bay is very shoal and in places goes dry at half tide. Beartrap Bay is a very good place to go to get fresh water as a boat can go up very close to the shore where a stream of fresh water can be had and from which water can be piped aboard. The bay is frequented during the summer by fishermen and should be quite a good place for anchorage. There was a sunken rock in the entrance to this bay located by the Steamer Taku, which is not shown on the Plane table sheet.

Bear-trap Bay, I should imagine got its name from its geographical shape, as it forms a figure resembling a trap. There is a small island about midway in the bay, which at first appearance looks to be the head of the bay, though a narrow passage leads around this island into a second bay of about one mile in length.

The head of Gravina Bay proper is the next portion of this survey and is perhaps the most interesting. The head of the bay is very shoal and the land is very low and marshy with two or three small rivers leading back into the several draws through the mountains. On either side of the bay near the head, the mountains are quiet steep and have a rugged appearance. The bay is frequented very often during the summer by fishermen as the salmon are plentiful here, because two fresh water streams empty out into the bay. It is said to be promising as a copper mining country. Anchorage can be found here, though care must be taken as an approach to the head of the bay the depths, in places, will jump from about fifteen fathoms to five feet in about two hundred meters distance.

Parsha Bay the coast line of which had already been surveyed was gone over again in order to locate some new signals for hydrographic purposes. In all cases, I feel sure the signals were named by the hydrographic party.

Oleson Bay and St. Mathews Bay are probably the most frequented of all this region, at present, principally for fishing. They are both a part of Gravina Bay and lie right next to each other on the north side of Gravina Bay. A small range of mountains divides the two.

At the entrance to Oleson Bay on the right hand side, the water is very foul with rocks. A chain of small islands extends out from the shore and off the end of the extreme island about two or three hundred meters and extending out into the main entrance to the bay is a rock awash at low water. Only one cut was taken to this rock and it was afterward located by the Str. Taku, so its position is not given on the Plane table sheet, however, one cut will be noticed. In all cases care was taken to find every rock and locate it during the progress of the work, and in doing Oleson Bay a number of rocks were located on the sheet, most of which were near the entrance to the bay. The contouring around Olsen Bay was very complicated and it was found that a great number of extra set-ups were necessary.

St. Mathews Bay is more free of rock and the entrance is wide with good water. Though on the right hand side near the entrance, there is a long shoal making out from shore that would probably deceive a stranger to the place, because the general appearance is that of deep water. The limits of this shoal ^{completely plane table} were determined by hydrographic party, though it is not indicated on the sheet.

The hydrographic work was done during the early part of the summer and good weather permitted cuts to distant mountain peaks so that the whole sheet is pretty well contoured. The inking of the sheet was done by me and this report was written without the plane-table sheet to consult, so any discrepancies in regard to estimated distances are due to the fact that they were taken from memory of the region as it appeared when the work was done.

A. J. ...

Asst. C. & G. Survey.

PLANE TABLE SURVEY OF COPY
PORT GRAVINA BAY, PRINCE WILLIAM SOUND,
ALASKA - - 1915

This survey was made during June and July 1915 and was done on a sheet sent out from the office which had on it the shore line of Parsha Bay without contours to any extent. This shore line extended for about five miles.

Signals were erected over the old triangulation station and the survey begun. It was tried in every case possible to do the work by the three point location and to avoid traversing as much as possible. Traverses and plane table triangulation were necessary in surveying the heads of Comfort Cove, Beartrap Bay, head of Gravina Bay, Parsha Bay, Oleson Bay, and St. Matthews Bay, all of which came on this sheet. In all cases the traverses and triangulation were checked whenever possible by azimuths from any triangulation station available.

The contouring was done by cutting in the mountain peaks by three or more cuts with elevations figured from estimated high water mark and all elevations were given above such plane of reference. After the peaks were cut in, the contours were sketched from the stations where the best view points could be had likewise the courses of the creeks were located. The latter were located in most cases by an azimuth from commanding point. The tree line was sketched in while the survey was being made and helped to give a true picture of how the locality really looks.

The Nature of the Country

This region varies a great deal in its general appearance in different sections of the survey. Between Comfort Cove and Beartrap Bay, the coast has a gradual slope up to a low range of heavily wooded hills, while in back of these is a range of rugged and irregular shaped mountains, whose peaks are sharp and jagged. During the whole year, snow patches stay on these peaks. They are an iron gray color with no signs of any sort of growth.

At the entrance to Beartrap Bay on the south side, the slope of the hills is gradual, while on the north side it starts rather steep from the shore line. As you enter the bay and go toward its head the shore line becomes more bold until you reach a place about one-quarter mile from the head where on one side of the bay the shore line has an almost sheer drop for two or three hundred feet. At the head of Beartrap Bay there is a draw into the mountains and where this draw begins the bay is very shoal and in places goes dry at half tide. Bear trap Bay is a very good place to go to get fresh water as a boat can go up very close to the shore where a stream of fresh water can be had and from which water can be piped aboard. The bay is frequented during the summer by fishermen and should be quite a good place for anchorage. There was a sunken rock in the entrance to this bay located by the Steamer TAKU, which is not shown on the Plane table sheet.

Bear trap Bay, I should imagine got its name from its geographical shape, as it forms a figure resembling a trap. There is a small island about midway in the bay, which at first appearance looks to be the head of the bay, though a narrow passage leads around this island into a second bay of about one mile in length.

The head of Gravina Bay proper is the next portion of this survey and is perhaps the most interesting. The head of the bay is very shoal and the land is very low and marshy with two or three small rivers leading back into the several draws through the mountains. On either side of the bay near the head, the mountains are quite steep and have a rugged appearance. The bay is frequented very often during the summer by fishermen as the salmon are plentiful here, because two fresh water streams empty out into the bay. It is said to be promising as a copper mining country. Anchorage can be found here, though care must be taken as on approach to the head of the bay the depths, in places, will jump from about fifteen fathoms to five feet in about two hundred meters distance.

Parsha Bay the coast line of which had already been surveyed was gone over again in order to locate some new signals for hydrographic purposes. In all cases, I feel sure the signals were named by the hydrographic party.

Oleson Bay and St. Mathews Bay are probably the most frequented of all this region, at present, principally for fishing. They are both a part of Gravina Bay and lie right next to each other on the north side of Gravina Bay. A small range of mountains divides the two.

At the entrance to Oleson Bay on the right hand side, the water is very foul with rocks. A chain of small islands extends out from the shore and off the end of the extreme island about two or three hundred meters and extending out into the main entrance to the bay is a rock awash at low water. Only one cut was taken to this rock and it was afterward located by the Str. TAKU, so its position is not given on the Plane table sheet, however, one cut will be noticed. In all cases care was taken to find every rock and locate it during the progress of the work, and in doing Oleson Bay a number of rocks were located on the sheet, most of which were near the entrance to the bay. The contouring around Olsen Bay was very complicated and it was found that a great number of extra set-ups were necessary.

St. Mathews Bay is more free of rock and the entrance is wide with good water. Though on the right hand side near the entrance, there is a long shoal making out from shore that would probably deceive a stranger to the place, because the general appearance is that of deep water. The limits of this shoal were determined by hydrographic party, though it is not indicated completely on the Plane table sheet.

The hydrographic work was done during the early part of the summer and good weather permitted cuts to distant mountain peaks so that the whole sheet is pretty well contoured. The inking of the sheet was done by me and this report was written without the plane-table sheet to consult, so any discrepancies in regard to estimated distances are due to the fact that they were taken from memory of the region as it appeared when the work was done.

(Signed) A. Joachims.

Asst. C. & G. Survey.