4716

Diag. Cht. No. 8102-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. ..... Office No. 4716

LOCALITY

State S.E. Alaska.

General locality Revillagigedo

Locality Channel J

1932

CHIEF OF PARTY

G.C. Jones

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DATE March 16, 1933

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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton *Director*

State: S. E. Alaska

DESCRIPTIVE REPORT

Topographic / ~~*Hydrographic*~~ } *Sheet No.* "D" 4716

LOCALITY

~~Duke Point to Point White~~
Revillagigedo Channel
~~Duke Island~~,

~~S. E. Alaska~~.

Southern Part of Duke I. to Barren I.

19 32.

CHIEF OF PARTY

G. C. Jones.

U. S. GOVERNMENT PRINTING OFFICE: 1930

DESCRIPTIVE REPORT

TO

ACCOMPANY TOPOGRAPHIC SHEET "D"

DUKE ISLAND - S. E. ALASKA

1932.

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET "D"

DUKE ISLAND - S. E. ALASKA

Authority:

Authority for the survey was the Director's instructions for project No. HT-99, to the Commanding Officer, U.S.C. & G.S.S. EXPLORER, dated March 24, 1932.

Limits:

The shore line extends along the East side of Duke Island from triangulation station "DUKE", Latitude 54°55.0', Longitude 131°11.5'. Across the South side of the island, including the off-shore rocks and islands to triangulation station "POINT", Latitude 54°55.9' Longitude 131°29.6' on the West side of Duke Island.

The sheet joins topographic sheet "C" at triangulation station "DUKE", and topographic sheet No. 3522 at Point White.

Control:

The control for this sheet was furnished by first order triangulation in 1915, supplemented by second and third order triangulation established by the party during the season.

General Description:

From Duke Point to topographic signal"WIFE" just West of Cape Northumberland, on Duke Island, the East and South side of East Island, the East and South side of Kelp Island and the Sister Islands are steep and rocky, the cliffs averaging from thirty to fifty feet in height.

With the exception of Kelp Island pass on both sides of the pass the tree line comes down to the high water line and slopes back gently. From the Cape south of Hall Cove on the East side to the entrance of the Cove is a steep rocky cliff. The remainder of the shore line to the Westward is low with the trees running down to the highwater line. The entire area is covered by a heavy growth of evergreen trees, except the top and Southeast ridge of Mount Lazaro and the hills North of Northumberland Bay. The top of Mount Lazaro is covered by a scrubby growth of trees. The Southeast ridge is rocky and partially covered by scrub growth of trees and brush.

The hills North of Northumberland Bay are rocky with outcrops of grass and partially covered by dead trees, from a distance they look brown.

Hall Cove and Duke Lagoon both have good water insde of them and offer good protection to small vessels and fishing boats. They can be entered at high water, Duke Lagoon, however being the easier of the two to enter.

On the East and South side of Duke Island as far West as Cape Northumberland, two or more cuts were taken to the topographic signals and the shore line and signals were run in by planetable stadia methods, using cuts, resections and three point fixes where ever convenient between triangulation stations to check the traverse line. From Cape Northumberland to the Westward one and two cuts were obtained to the signals and the shore line and signals were run in by traversing between triangulation stations. Trouble was encountered between triangulation stations "KELP" and "~~KELP~~", and "LAND" and "HALL". The topographer thinks this was due to distortion of the sheet. These two traverses were rerun. The others were well within the limits set by the "Topographic Manual", and were adjusted as described therein.

The off-shore rocks were located by three or more cuts and resections from triangulation stations, and when necessary by stadia from the point that had been located on them.

Cuts for elevations were taken from triangulation stations and other points that had previously been located by planetable methods. Fifty feet was deducted from elevations for the heights of trees.

Standard practice was followed throughout the entire sheet.

note deep of Duke Hill in report of T. 4720

Landmarks:

Duke Hill is the most prominent hill on the East side of the Island, and is steep and flat topped giving the appearance of a table like hill. There is a prominent gray cliff on the Southeast point of Duke Island around triangulation station "GREN", it is about fifty feet high. The Southeast point of Kelp Island, around triangulation station "KELP" is marked by a very steep and dark cliff forty feet high. There is a prominent black rock 1500 meters South-Southeast of triangulation station "KELP", that marks the limits of the dangerous water for a vessel coming around the South side of Kelp Island to Northumberland Bay. Sister Islands give the appearance of one island from a distance, but upon approaching them they show up as three distinct round topped islands. Cape Northumberland shows up as a bold point and has a dark gray cliff fifty feet high. Mount Lazaro is a rectangular mountain with a flat narrow top. The top is covered with scrub brush and the Southeast ridge is rocky and partially covered by scrub trees. Otherwise it is heavily wooded.

Discrepancies:

Where the sheet joins bromide No. 3522 at Point White, they lack approximately twenty meters of connecting. As this sheet is tied into triangulation station "POINT" and the topographer on sheet No. 3522 had no control except north of the Percy Islands it is recommended that the shore line on sheet No. 3522 be adjusted to this sheet. From Point White to Hall Cove sheet No. 3522 seems to be more or less a reconnaissance. The shore line and low water line has many discrepancies that were checked up in the field and found to be wrong.

From Cape Northumberland to the Westward there are numerous off shore rocks that the topographer was never able to locate because each time he was in the vicinity when there was a mimus tide it was either foggy or storming. They will have to be located by the hydrographer, preferably on minus tides.

Inserts:

There are two inserts on the sheet, one 1:10,000 insert through Kelp Island Pass because it was thought feaseable due to the protection and anchorages it offers vessels in that vicinity. One 1:20,000 insert to take in Barren Island because otherwise it would not come on the sheet.

Distortion:

Some trouble was encountered in the work due to distortion of the sheet. The work was done under rather unfavorable weather conditions for topography. There was considerable rain and fog and it was impossible to keep the sheet dry at all times. As a result the distortion varied from time to time and was unequal in different directions, however it was checked at frequent intervals and the proper corrections applied.

Magnetics:

This is a locality of magnetic disturbance and only one magnetic meridian was put on the sheet with the declinatoire. However the party made a magnetic survey of the area and there is a special sheet covering this survey.

New Names:

1. Well established local names:
   (a) Judd Harbor

2. Names assigned by field officers:
   (a) Duke Lagoon
   (b) Duke Bay
   (c) Kelp Island Passage
   (d) Kelp Bay
   (e) Northumberland Bay
   (f) Reef Bay not a good choice - there is Reef Hbr. on N.E. side of Duke I.

The topographer did not hear any local name for any of the places named except Judd Harbor, and the new names assigned were because they seemed to him to be the most appropriate.

Statistics:

High water line:	99.7 Statute Miles.
Elevations:	67

Respectfully submitted,

G. C. Mast,
Jr. H. & G. Engr.,
U.S.C. & G.S.S. EXPLORER.

APPROVED AND FORWARDED:

G. C. Jones,
Commanding Officer,
U.S.C. & G.S.S. EXPLORER.

Form 537a
11—5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4716

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. D

REGISTER NO. 4716

State Alaska

General locality Revillagigedo Channel

Locality Southern Part of Duke I., to Barren I.

Scale 10,000 / 20,000 Date of survey Aug. to Sept., 1932

Vessel Explorer

Chief of Party G. C. Jones

Surveyed by G. C. Mast

Inked by G. C. Mast

Heights in feet above H.W. to ground ~~the~~

Contour, Approximate contour, Form line interval 100 feet

Instructions dated March 24, 1932, 192

Remarks:

GPO

applied to drawing (compilation) of reconstructed
chart № 8075 . . . . . S.B.M. aug 1934

applied to drawing of chart № 8102. S.B.M. Sept 1934

" " " " " 8002 S.B.M. " "