

6504

U. S. COAST & GEODETIC SURVEY
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Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic

~~Topographic~~

Sheet No. "A"

State ~~S. W.~~ ALASKA

LOCALITY
UNIMAK I.
DORA HARBOR AND VICINITY

~~UNIMAK ISLAND~~

193 6

CHIEF OF PARTY

Jack Senior

U. S. GOVERNMENT PRINTING OFFICE

6504

Applied to drawing of chart No 8860 before review.

S. B. Mairg April, 1937.

Applied to drawing of chart No. 8802 before review.

S. B. Mairg June 1937.

" " " " " 8701

J. M. Albert Mar. 1939.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. A

REGISTER NO. T6504

State S. W. ALASKA

General locality UNIMAK ISLAND

Locality DORA HARBOR AND VICINITY (~~UKATAN PENINSULA~~)

Scale 1:10000 Date of survey July & August, 1936

Vessel U. S. C. & G. S. S. DISCOVERER

Chief of party Jack Senior

Surveyed by O. E. Hartzog

Inked by O. E. Hartzog

Heights in feet above M.H.W. to ground ~~*****~~

Contour, Approximate contour, Form line interval None feet

Instructions dated March 30, 1936

Remarks: Triangulation on Unalaska Datum (1901)

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET "A"

DORA HARBOR
IKATAN PENINSULA

UNIMAK ISLAND, S.W. ALASKA

SEASON OF 1936

Jack Senior, Commanding Officer

U. S. C. & G. S. S. DISCOVERER

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET "A"
DORA HARBOR
UNIMAK ISLAND, S. W. ALASKA

INSTRUCTIONS:

The work on this sheet was in accordance with the Director's Instructions for Project HT-208, dated March 30, 1936. ✓

LIMITS:

The area included on this sheet lies between Latitudes $54^{\circ}39.7' N.$, ✓
and $54^{\circ}42.9' N.$, and Longitudes $163^{\circ}13.2' W.$, and $163^{\circ}17.7' W.$

This includes Bird Island.

A junction was made with Topographic Sheet "B" 1936, at topographic station "Ace", in Lat. $54^{\circ}40.66' N.$, Long. $163^{\circ}13.48' W.$, and with sheet "C" at topographic station "Las" in Lat. $54^{\circ}41.88' N.$, Long. $163^{\circ}17.00' W.$
T-6505
T-6506

CONTROL:

The topography was entirely controlled by a scheme of triangulation executed in 1936, which extends southward from Otter Cove West Base 1901, and Otter Cove East Base 1901, then turns eastward along the south side of Ikatan Peninsula. These stations were so placed that no traverses were necessary, all intermediate plane-table set-ups being able to be checked by resection. ✓

SURVEY METHODS:

Standard plane-table survey methods were used. Triangulation afforded excellent control, and only a few very short traverses were run, from station to station. Topographic signals were principally located by three or more cuts, usually from a triangulation station, and verified by rod readings. ✓

Shoreline and topographic detail by rod readings and cuts. ✓

Most off-lying rocks were located by three or more cuts, with rod readings when the weather permitted landing on them. A few of the more important ones were also checked by sextant fixes, taken from a skiff at the rock in question. ✓

Bird Island presented quite a problem. Steep sides, numerous sunken rocks, and an almost continuous swell made landing very difficult, especially with plane-table equipment. The only possible landing place was on the north tip, a rather steep beach of very coarse gravel. After numerous unsuccessful attempts a plane-table traverse was completed of the north half, signals "Ham" to "Cup". From these two stations walking along the coast to the southward was impossible because of precipitous cliffs. Attempted landings on outlying rocks were abandoned as being too dangerous to personnel and equipment. Even moderate seas usually broke over the only rocks suitable for plane-table positions. ✓

The launch was then anchored at numerous positions around the south side, and a series of sextant positions taken, with cuts to all white-washes, rocks, and prominent spots along the beach. These were plotted with a steel protractor, and found to be very satisfactory. As an additional check, all whitewashes, points, and prominent rocks were cut in from several points around Dora Harbor and vicinity. The stations on the west side of Bird Island were checked on the Otter Cove Sheet, field No. C 1936. ✓

T-6506

The Lake was rodded by traversing from triangulation station BOR 1936, closing back on this same station. ✓

ELEVATIONS:

All elevations, except the heights of the smaller offshore rocks, were determined by standard plane-table methods. The small and low rocks were estimated at various stages of the tide, and reduced accordingly to Mean Lower Low Water. All rocks baring at high water are given as so many feet above mean high water. Form lines for this area are shown on Sheet D 1936.

T-6507

COMPARISON WITH PREVIOUS SURVEYS:

The previous survey of this area was done in 1901 on a scale of 1:40000 (Register No. 2554). The shoreline detail on this early survey is apparently sketched and indicated rather than rodded.

The shape and general characteristics are good, considering the scale and scarcity of control. Most of the main points and dangers agree as well as can be expected. The dotted line on the 1901 survey covers most of the main dangers. It is not necessary for this line to go from Bird Island to the Peninsula, as there is a good channel just north of Bird Island.

The rocky point west of signal "Ant" goes out slightly further than shown on the early survey. The rock baring 3' MLLW, 225 m. south of this point, is not shown on the early survey, though it is on Chart # 8701.

From
H-2557 (1901)Not on Chart
8701-See
per Saito,
review:

The shoreline from signal "Cab" to "Ace" is about 90 meters further to the west than the early survey shows. There is also a large rock, (triangulation station ROCK C 1936) offshore in this area not indicated at all on the 1901 survey.

The Lake is a trifle larger than the early survey shows, though the position of the stream entering at the north is very good.

Bird Island is actually about 250 meters longer, and of a slightly different shape. The position of triangulation station Bird Island 1901;

*There is no description for this station and no evidence
that highest point of island was observed on. A.L.S.

4.

(750 feet)^{*} and the highest point (775 feet) as determined by plane-table
1936, agree very closely (10 meters in both Lat. and Long.).

The dock and houses on the southeast side of Dora Harbor are gone,
only a few twisted angle irons remaining on the beach.

On the north side, the inshore remains of the dock, two houses and
a few skeletons of shacks, are left.

A photostat of the early survey was kept in the field, and checked
with the new survey as it progressed.

Everything considered, the early survey was good, though not accurate
or detailed enough for anything more than a general chart of the area.

GENERAL DESCRIPTION:

In general the coast is very rocky and barren. The cliffs, as shown
by conventional symbols, are rocky and precipitous. The only exception
is the one from triangulation station BERN 1936 to signal "Cab". This is
more sand and mud than rock.

The beaches below the rocky cliffs are strewn with boulders and
small rocks. There is a good sand beach at low tide in the vicinity of
signal "Leg", but rocky and rather shallow offshore.

The beach in the western corner of Dora Harbor proper, between
signals "Tex" and "Hit" is composed of sand and fine gravel. At high
tide a small boat drawing three to four feet can be brought up to this
beach. The stream entering here varies in width from 20 to 30 feet,
and about four feet deep. Good fresh water can be obtained the year
round.

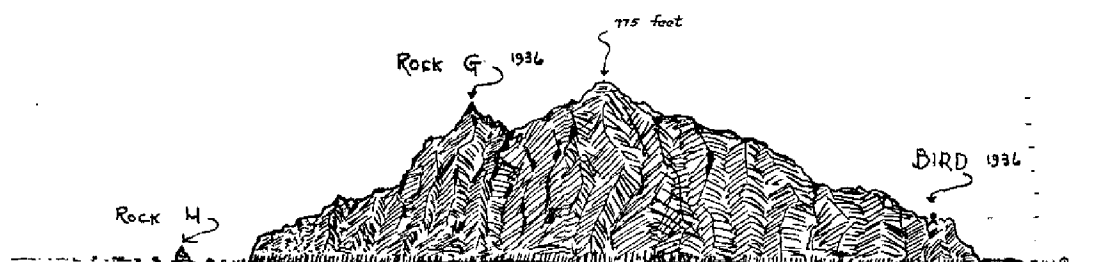
The point off signal "Ant" bares from one to three feet at MLLW,
and is very rocky. Moderate seas break over this point at all stages of
tide. The outside edge of this reef is very steep, deep water running up
almost to the low water line.

The beach in the Cove east of triangulation station LEW 1936 (known locally as Snapper Bay; see Coast Pilot notes for 1936 of this area) varies from sand to gravel.

The Lake east of Dora Harbor, fed by the stream (20 to 30 feet wide and 3 to 5 feet deep) at its northern end, is of fresh water, and deep. The shoreline is mostly gravel, with occasional patches of coarse sand. The only apparent outlet is a small stream on the western side, emptying into Dora Harbor. This is dry during the latter part of the summer, when the Lake is low.

The area north of this stream, up to triangulation station HAR, is low, grassy, and rather swampy in wet weather. The largest valley on this sheet runs northeast from this low area, following the stream.

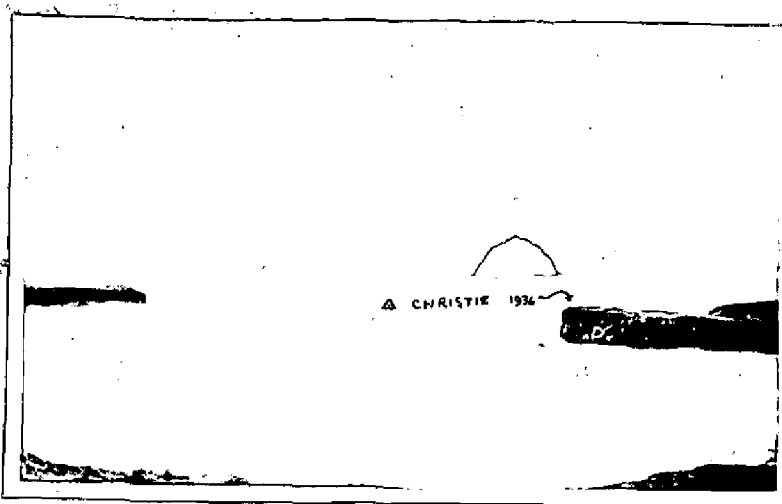
Bird Island is extremely rocky and precipitous. Moss and grass cling in patches all the way to the top. The highest point (775 feet) is of small area, and easily distinguishable. The below sketch shows the general configuration.



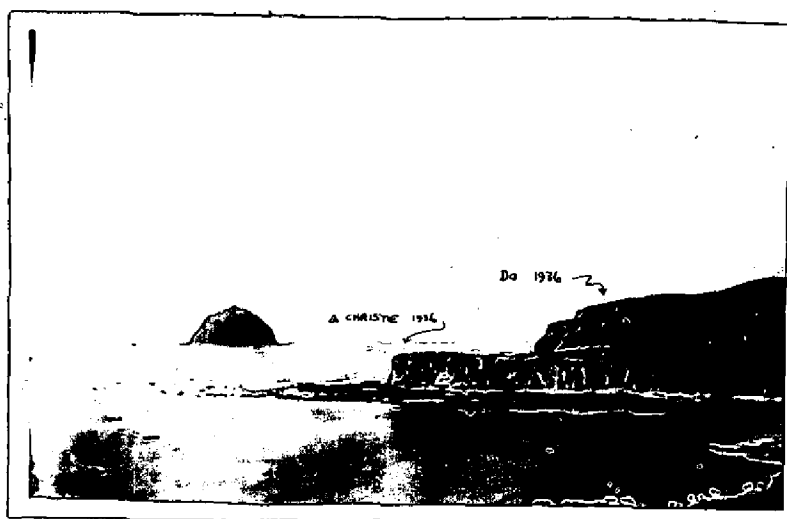
Profile of Bird Island, sketched from a point on the high water line directly below triangulation station ROCK E 1936,

scale: 1:10000

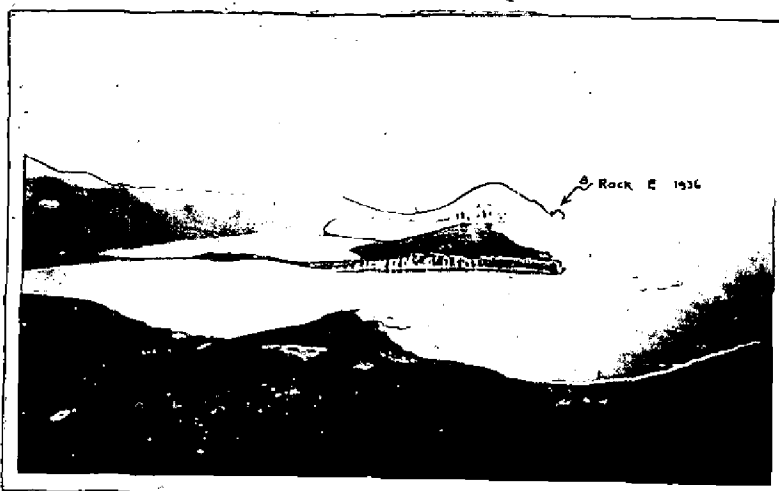
VIEWS OF DORA HARBOR AND VICINITY



1. View of Dora Harbor showing Bird Island in the distance, taken from the hill northeast of the shacks, at an elevation of about 200 feet, in Lat. $54^{\circ}42.78$, Long. $163^{\circ}1575$



2. Another view from a point approximately 175 meters to the east-southeast of No. 1, elevation about 125 feet, showing both triangulation stations CHRISTIE and DO. (Low Tide)



3. General view of Dora Harbor, the Lake, and the Cove east of Dora Harbor, taken from approximately Lat. $54^{\circ}42.8$, Long. $163^{\circ}17.4$, elevation about seven or eight hundred feet.

MAGNETIC OBSERVATIONS:

An observation was made at triangulation station CHRISTIE 1936
with Declinatoire No. 174 and found to be 19° 29' East. Charted value 17° 05'

LANDMARKS:

Landmarks for this area have been forwarded under separate cover,
on Form 567.

Respectfully submitted,

O. B. Hartzog
O. B. Hartzog,

Aide, U.S.C. & G.S.S. DISCOVERER.

Approved and forwarded,

Jack Senior
Jack Senior,
Commanding Officer,
U.S.C. & G.S.S. DISCOVERER.

Forwarded.

Ray L. Schaffer
Chief of Party.

STATISTICS

TO ACCOMPANY TOPOGRAPHIC SHEET "A"

Number of statute miles of shoreline -----	8.6
Number of statute miles of Lakes and Rivers -----	3.8 ✓
Number of square statute miles of area -----	9.5

Remarks

Decisions

1		USGB decision
2	"IKATOK PEN." on H-2556 (Baker- Native name variously written.....Ikatok, ...properly Ikatan.	
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GEOGRAPHIC NAMES

Survey No. T-6504

GEOGRAPHIC NAMES										
Survey No. T-6504										
Name on Survey	On Chart No. 8860, 8802									
	A	B	C	D	E	F	G	H	K	
	On previous survey No. T-2554, H-2556									
	On U. S. quadrangle Maps									
	From local information									
	USCP On local Maps									
	P.O. Guide or Map									
	Baker - Dictionary									
	Rand McNally Atlas									
	U. S. Light List									
	American Geog. Soc. Map									
<u>Unimak I.</u>	✓				✓				✓	1
<u>Ikatan Pen.</u>	✓	T-2554			✓	✓			✓	2
<u>Dora Harbor</u>	✓	✓			✓					3
<u>Lake</u>										4
<u>Bird I.</u>	✓	✓			✓					5
<u>(W. Anchor Cove)</u>	8802									6
<u>(W. Anchor Cove)</u>	8860	T-2554 H-2556	Not on Sheet							7
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Names underlined in red approved

by WE on 2/19/37

M 234

Names underlined in red approved

by WHE on 2/19/37

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

~~No. 11~~
No. T-6504

received Feb. 9, 1937
registered Feb. 10, 1937
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
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✓ 25		<i>10/11</i>	<i>D. H.</i>
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RETURN TO

82	C. K. Greenn
----	--------------

✓

80-LEF

February 14, 1938.

Mr. O. B. Hartzog,
c/o Sabine Towing Company,
Port Arthur, Texas.

Dear Sir:

There is being forwarded to you, under separate cover, a photostat of Topographic Survey No. 6504, Dora Harbor, Alaska, which was surveyed by you in 1936, and on which there is some doubt in this office concerning the exact meaning of the dashed line in the places indicated by yellow pencil notes on the photostat.

It is thought probable that you can remember the areas in question and it will be appreciated if you will, by making notes on the photostat, clarify the doubtful areas as much as possible and return the photostat to this office. The particular point in question is whether the dashed line in all places represents the approximate low water line and whether there may be places inside the dashed line where the standard rocky ledge symbol might more properly indicate the nature of the topography.

A franked addressed label is enclosed for mailing the photostat.

Very truly yours,

(Signed) J. H. HAWLEY

Acting Director.

Information received and acted upon. See review, par. 4d.
J.A.M.

SECTION OF FIELD RECORDS

REVIEW OF TOPOGRAPHIC SURVEY NO. 6504 (1936) FIELD NO. A

Dora Harbor and Vicinity Unimak Island, Alaska

Surveyed in July-Aug., 1936, Scale 1:10,000

Instructions dated March 30, 1936 (DISCOVERER)

Plane Table Survey

Aluminum Mounted

Chief of Party - J. Senior
Surveyed by - O. B. Hartzog
Inked by - O. B. Hartzog

1. Junctions with Contemporary Surveys

The junctions with T-6505 (1936) on the east and T-6506 (1936) on the west are satisfactory.

2. Comparison with Prior Surveys

H-2556 (1901), 1-140,000; T-2554 (1901), 1-40,000

H-2556 (1901) is a combined hydrographic and topographic survey which, within the area of the present survey, contains only topography transferred from T-2554 (1901). The latter survey covers the entire area of the present work. Differences of 100 to 200 meters in shoreline are probably due to sketching and generalizing on the old survey. The dotted lines indicating reef or foul area shown on T-2554 as connecting Bird Island with Ikatan Peninsula are not borne out by the depths of 5 and 6 fathoms shown on H-6146 (1936).

Form lines on the portion of Ikatan Peninsula falling within the limits of the present survey were determined on T-6507 (1936) and are discussed in the review thereof. The current surveys did not determine form lines on Bird Island, but a detailed profile sketch is contained in the descriptive report of the present survey. The old survey shows an elevation of 750 feet on what is presumably the highest part of the island as compared with 775 feet on the present survey. The new elevation should be accepted as correct and, for charting purposes, the old form lines may be adjusted to it.

The present survey, because of its larger scale and greater detail, should supersede the old surveys except for form lines on Bird Island in future charting of the common area.

3. Comparison with Chart 8701 (New Print dated April 12, 1937)

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and on old hydrographic surveys which are adequately discussed in the review of H-6150 (1936-37).

4. Condition of Survey

- (a) The descriptive report does not give the closing error of the traverse around the lake. It is otherwise satisfactory.
- (b) Junction notes were inked on the survey by the field party. They should be left in pencil as they are revised in the office to include the register number of the survey.
- (c) Offshore breaker symbols were shown with a wavy solid line along one edge of a double row of dotted half circles. This is a misinterpretation of the symbol given on page 112 of the topographic manual, the wavy solid line being intended to represent the shoreline and not a part of the breaker symbol. The necessary corrections were made in the office.
- (d) A dashed black line was used to indicate approximate low water line. No distinction was made between sand beaches, rock ledges, etc. In answer to an office letter, Mr. O. B. Hartzog, who made the survey, indicated the limits of each feature on a photostat of the survey and the necessary corrections were made in the office. The corrections were verified and the photostat destroyed.

5. Compliance with Instructions for the Project.

Form lines should have been determined on Bird Island (see paragraph 2, this review). Otherwise the survey satisfies the instructions for the project.


6. Additional Field Work Recommended.

No additional field work is recommended.

7. Reviewed by - J. A. McCormick, February 18, 1939.

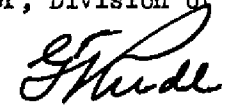
Inspected by - E. P. Ellis

Examined and approved:


T. B. Reed,
Chief, Section of Field Records


K. T. Adams
Chief, Division of Charts


Fred. L. Peacock
Chief, Section of Field Work.


G. H. Hilde
Chief, Division of H. & T.