

4736

U. S. COAST & GEODETIC SURVEY
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Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
R. S. Patton, Director	
State: <u>S.W. Alaska</u>	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. "C" 4736
LOCALITY	
<u>Afognak Island</u>	
<u>Tonki Bay and Vicinity</u>	
1932	
CHIEF OF PARTY	
<u>H. B. Campbell</u>	

U. S. GOVERNMENT PRINTING OFFICE: 1930

DESCRIPTIVE REPORT
to Accompany
TOPOGRAPHIC SHEET "C"

LOCALITY

This sheet covers the area from Tolstoi Point, with all of Tonki Bay, to and including the east side of Tonki Cape and Sea Lion Rocks. It joins with Sheet "B" at Tolstoi Point, and Sheet "D" in Marmot Strait.

AUTHORITY

This survey was made under the Director's instructions dated April 21, 1932, U.S.C. & G.S.S. DISCOVERER, H. B. Campbell, Commanding.

GENERAL DESCRIPTION

The shoreline is very ragged with numerous off-lying rocks around Tonki Cape both in Marmot Strait and for about two miles down into Tonki Bay. The coast is lined with heavy kelp rendering it very difficult for even small boats to reach the shore for a landing. This condition also prevails from Tolstoi Pt. to a distance of about two miles into the west arm of Tonki Bay. The two arms of Tonki Bay have relatively even shore line, and are comparatively free of off-lying rocks and kelp. The hills in this area are sparsely wooded, with only scattered patches of spruce trees. Grass with rock outcrops prevails over the entire area. The twin peaks on Tolstoi Pt. are prominent landmarks from an easterly and westerly direction. From a north-

westerly direction they are apt to be confused with the two peaks on the point at the entrance to the west arm of Tonki Bay, which are very similar from that direction. From an easterly and westerly direction the point on which Tonki Cape Light is located appears to be a large, flat-topped, detached rock. There are no prominent points or peaks on the ridge running south from Tonki Cape. The point on which triangulation station TONKI, 1907 - 1931, is located, is a small nub east of the main ridge and is slightly higher than any point on the main ridge in that vicinity. There is a long straight ridge extending north and south along the peninsula between the two arms of Tonki Bay, with prominent peaks at intervals along the ridge. This ridge terminates in a precipitous headland on the point of the peninsula between the two arms. There are two prominent pinnacles about one mile south of Tonki Cape on the east side of the east arm of the bay. They are approximately 35 ft. high and are designated by topographic signals HAW and LAB. A good anchorage is available 400 meters southwest of these pinnacles.

Tolstoi Point

is the name of the first point west of Tonki Bay. It is about two miles west of Tonki Bay. It has a jagged shore line with numerous rocks bare at various stages of the tide. It is recognized by two peaks of about the same elevation and just south of the point.

Tonki Bay

is the name of the body of water between Tolstoi Point

and Tonki Cape. It has two arms running in a north and south direction. The arm on the west is about six miles long and is designated as the West Arm. The arm to the east is about three miles long and is designated as the East Arm. The west side of each arm has steep hills rising up from the water line, while on the east sides the land slopes up gradually with low rolling hills and ridges.

Tonki Cape

is the name of the point on the east side of the entrance to Tonki Bay. It is a rocky point with a string of rocks running out to the north for about four tenths of a mile. The east side of the Cape for a distance of about four miles to the south has a low grassy area with scattered spruce trees.

Sealion Rocks

is the name of the group of rocks five miles due east of Tonki Cape. They are bare, and sealion are abundant around them.

METHODS OF SURVEY

A plane table was used throughout. Triangulation stations were established over the entire area at a distance of not more than two miles apart. All supplementary control was by cuts. On the east side of Tonki Cape the control was by cuts resecting on triangulation station SEALION. From triangulation station MIST to Tolstoi Point the control was by cuts from MIST resecting on triangulation station TOLSTOI. A new survey was run over the old survey on the east side of Tonki Cape. The control for the

old survey was on a different datum from that of the 1932 season. This shoreline was transferred from sheet Reg. No. 2961 but it did not check with the new survey by approximately 30 meters, and it was deemed necessary to resurvey the entire area. A new projection on the 1932 datum was made on the old bromide but due to distortion of the bromide it was very difficult to transfer the shoreline accurately. Therefore the discrepancy may be accounted for in this way.

OFF-LYING DANGERS

There are several islets and rocks bare or awash at various stages of the tide, as shown on the sheet.

ELEVATIONS

Elevations are heights above M.H.W. and are given to the ground in all cases.

STATISTICS

Statute miles of shoreline - - - - - 48
Area, square statute miles - - - - - 65

Respectfully submitted,

Ira R. Rubottom
Ira R. Rubottom,
Jr. H. & G. Engr.

Approved and forwarded:

H. B. Campbell
H. B. Campbell,
H. & G. Engr., C. & G. S.,
Chief of Party, Ship DISCOVERER.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4736

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 Letter C

REGISTER NO. 4736

State ~~ESSEX~~ AlaskaGeneral locality Afognak IslandLocality Tonki Bay and VicinityScale 1-20,000 Date of survey July-August, 19 32Vessel DISCOVERERChief of Party H. B. CampbellSurveyed by I. R. RubottomInked by I. R. RubottomHeights in feet above M.H.W. to ground ~~to tops of trees~~Contour Approximate contour Form line interval 100 feetInstructions dated April 21, 19 32

Remarks:

REVIEW OF TOPOGRAPHIC SURVEY No. 4736 (1932) "Field C"

Title (Par. 56) *Tonki Bay and vicinity, Afognak I. Alaska*Chief of Party *H.B. Campbell* Surveyed by *I.R. Rubottom* Inked by *I.R. Rubottom*Ship *Discoverer* Instructions dated *Apr. 21, 1932* Surveyed in *July-Aug. 1932*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓
2. The character and scope of the survey satisfy the instructions. ✓
3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓
4. The amount of vertical control that the Manual specifies for ~~contours~~ ~~formlines~~ was accomplished. (Par. 18, 19, 20, 21, 22, 23.) ✓
5. The delineation of ~~contours~~ ~~formlines~~ is satisfactory. (Par. 49, 50.) ✓
6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) *No maps from outside sources were submitted.*
7. High water line on ~~marshy and mangrove coast~~ is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓
8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) ✓
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) *T-2961 (1909) shows a part of the area covered by the present survey. The general agreement is good although displacement of parts of the shoreline approximating 30 meters are noted. The present survey shows greater detail in shoreline and rocks and should supersede the 1909 survey for charting purposes.* ✓
10. The span, draw and clearance of bridges are shown. (Par. 16c.) *No bridges exist within the limits of the survey.*
11. Locations and elevations of summits are given. (Par. 19, 51.) ✓
12. The tree line was shown on mountains. (Par. 16g.) *Noted in Desc. Rep.*

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓
14. The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.
15. The descriptions of recoverable stations and references to shore line were ^{not} accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DP's, 68.)
16. ^{No} A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *Several topographic features that would serve as landmarks are noted in the general description. Desc. Rep. page 1.*
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) *The data on the magnetic arrow is incomplete and there is no evidence that the declination was checked.*
18. The geographic datum of the sheet is *Valdez* and the reference station is correctly noted. (Par. 34.) ✓
19. Junctions with contemporary surveys are adequate. ✓
20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ✓
21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓
22. No additional surveying is recommended. ✓
23. The Chief of Party inspected and approved the sheet and the descriptive report. ~~after review by~~
24. Remarks:

Reviewed in office by *R. J. Christman, Sept. 22, 1936.*

Examined and approved:

E. H. Green
Chief, Section of Field Records

R. O. Colburn
Chief, Division of Charts

Fred. L. Peacock
Chief, Section of Field Work

Glenn
Chief, Division of Hyd. and Top.

NAUTICAL CHARTS BRANCH

SURVEY NO. T-4736

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.