

7036a&b

Diag. Cht. No. 8502-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. PF - A & B Office No. T-7036 a & b

LOCALITY

State Alaska

General locality Bristol Bay - Kvichak Bay

Locality Vicinity of Naknek River

1946

CHIEF OF PARTY

R.F.A. Studds

LIBRARY & ARCHIVES

DATE March 6, 1947

8-1870-1 (11)

7036a&b

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

Each Topographic and Graphic Control Sheet, and each Air Photographic Drawing should be accompanied by this form, completed so far as practicable, when forwarded to the Washington office.

Registry No. T-7036 a & b

Field No. PF - A & B - 46

Scale 1 : 20,000

State Alaska General locality Bristol Bay - Kvichak Bay

Specific locality ~~Kvichak Bay~~, Vicinity of Naknek River

Dates: Survey began 16 September 1946 Completed 3 October 1946

Photography _____, Supplemented by ground surveys to _____

Project No. CS - 327 Instructions dated 20 June 1946

Vessel } or PATHFINDER Chief of party R. F. A. Studds
Party }

Field work by H.C.Applequist Office work by H.C.Applequist

Final inking by H.C.Applequist

Ground elevations } in feet above { M. H. W.
~~Topographic elevations~~ } or { _____

Contours } by { Planetable } Interval _____ ft.
Approximate contours } { Multiplex }
Form lines } { _____ }

REMARKS Detail back of shoreline may be obtained from Ait. Photos

17036 a & b

DESCRIPTIVE REPORT
to accompany

TOPOGRAPHIC SHEET FIELD NO. PF-A-46
and

TOPOGRAPHIC SHEET FIELD NO. PF-B-46

USC&GSS PATHFINDER
1946

T-7036 a. & b. (1946)

AUTHORITY: Authority for this survey is contained in the Director's Instructions for Project CS-327, dated 20 June 1946.

LOCALITY: These surveys cover the east shore of Kvichak Bay, Bristol Bay, Alaska, from Latitude $58^{\circ} 47'$ to Latitude $58^{\circ} 34.5'$. The Naknek River was surveyed on another sheet. (T-7093 (1946-47))

SCALE: The scale of these surveys is 1 - 20,000.

GENERAL DESCRIPTION OF AREA: From the channel the shoreline of Sheet PF-B-46 appears as a line of low bluffs. The only distinctive feature is Johnson Hill, about one mile back from the shoreline. This is a low alder covered hill about 325 feet high with two summits of about equal elevation, with a slightly lower ridge between them. The northerly summit is sharper and more distinctive.

T-7036 a The line of bluffs continues northward on Sheet PF-A-46 and is broken by the entrance to the Naknek River. The tanks and buildings at the canneries along the river and the buildings of the village of Naknek may be seen from offshore. The structure of the Naknek River Entrance Light, triangulation name "CAPE SUWAROF LIGHT", is small and not readily seen until close inshore. North of the river entrance the bluffs continue. The Bristol Bay Packing Company Cannery buildings and tanks, about $2\frac{1}{2}$ miles north of the river, and the Libby, McNeil and Libby Cannery buildings at the north end of the sheet may be seen from well offshore.

The area back of the shore line is fairly flat with a few knolls. It is mainly tundra or muskeg with numerous ponds and small streams. Alders grow along the streams and on the knolls. Directly back of the shoreline there are earth bluffs up to about 100 feet high. Due to the great amount of water in the soil the bluffs are continually caving in and receding except in a few places where weathering has been sufficient and the natural slope has been reached. Grass grows along these slopes. The area along the high water line back to the bluffs consists of sand and gravel. It appears that the high water line changes considerably due to storm action. The outlets of the streams also change with the storms. The

GEOGRAPHIC NAMES: The following names, shown on the chart are apparently correct and used locally: Kvichak Bay, Naknek River, and Cape Suwarof. The hill shown on the chart as "Johnston Hill" is known locally as "Johnson Hill". The point on the north side of the Naknek River, part of Cape Suwarof, is called "Pederson Point" by a few of the residents but the use of this name is not well established and is not recommended for charting purposes.

Spelling Johnston
goes back to
1890.

MISCELLANEOUS: Transportation along the shoreline in this area is very much of a problem. Due to the great range of tides and the wide low water area, landings by small boat may be made only at half tide or more at most places along the shore. In some places the slope of the mud flats is such that $3/4$ tide is necessary. These mud flats cannot be traversed on foot. North of Sheet PF-A-46^{T-1036a} there are larger streams, too deep to wade and difficulty is anticipated in getting along this shoreline. Possibly the use of "weasels" working from shore camps may solve the difficulty although the marshy character of the country may be difficult for the "weasels" to traverse.

Topographic station "EAR" is the rear range marker for the channel into the Bristol Bay Packing Co. Cannery. The front range marker is the north side of the tank structure, triangulation station Bristol Bay Packing Co. Cannery Tank. The rear range marker must be kept open to the north for the channel.

Respectfully submitted,

H. C. Applequist
H. C. APPLEQUIST
Lieut., USC&GS

Approved, forwarded.

R. F. A. Studds

R. F. A. STUDDS
Lt Comdr, USC&GS
Chief of Party

area between the high water line and the low water line consists of sand banks and mud with numerous small boulders in some places.

CONTROL: Control for this survey was furnished by triangulation executed by the party of J. C. Tribble in 1946, supplemented by a small amount of triangulation by personnel of the PATHFINDER. Positions are on the unadjusted field computations of the North American 1927 Datum.

T-7036 b.

DETAILS OF SURVEYS: Only standard survey methods were used. Traverses were used entirely on Sheet PF-B-46 and for all of Sheet PF-A-46 except that portion from CAPE SUWAROF LIGHT to BRISTOL BAY PACKING CO. TANK, where a combination of traverse and three point fix was used.

No attempt was made to delineate the numerous ponds or the courses of the streams. These can more easily be taken off the air photos of this area. The low water line was not located as it is from a half to two miles offshore and can more readily be located by the hydrographer, also, the great range of tide made a topographic location impracticable.

Review, par. 7.

Only the docks at the canneries are shown. The remainder of the detail may be taken off the air photos.

CLOSING ERRORS OF TRAVERSES: All traverses closed within the allowable limits and the errors were distributed proportionately over the traverses.

T-7036 a

JUNCTIONS: The area north of Sheet PF-A-46 is unsurveyed. At the entrance to the Naknek River this sheet joins Sheet PF-C-46, which is a continuation of the same survey by the same topographer on a scale of 1 - 10,000 covering the Naknek River. Sheet PF-C-46 was not completed in 1946. To the south, Sheet PF-A-46 joins sheet PF-B-46 which is a continuation of the survey and is on the reverse side of the aluminum sheet. Junction was made at station SOB 1946. The area south of Sheet PF-B-46 is unsurveyed.

T-7093 (1946-47)

Review,
par. 1

T-7036 b

MAGNETIC DECLINATION: The magnetic meridian was drawn on Sheet PF-A-46 at a setup 35 meters from station ALASKA PACKERS ASSN. DIAMOND "M" TANK and on Sheet PF-B-46 at station SOB 1946. There was apparently no local disturbance at intermediate setups.

The declinoire was standardized at the Inglewood (Wash.) magnetic station on 2 January 1947. A correction of $+0.3^{\circ}$ should be applied to the meridian as shown.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF TOPOGRAPHIC SURVEY

REGISTRY NO. T-7036a & b

FIELD NO. PF-A & B-46

Alaska, Bristol Bay - Kvichak Bay, Vicinity of Naknek
Surveyed in Sept., - Oct., 1946 Scale 1:20,000
Project No. CS-327

Plane Table Survey

Aluminum Mounted

Chief of Party - R.F.A. Studds
Surveyed by - H. C. Applequist
Inked by - H. C. Applequist
Reviewed by - T. A. Dinsmore, 24 February 1950
Inspected by - R. H. Carstens

1. Adjoining Surveys

An adequate junction was effected with T-7093 (1946-47) on the east (Naknek River entrance). There are no plane-table surveys registered on the north and southwest. The present survey, however, is in adequate agreement with air-photographic surveys T-9062 (1946-48) and T-9073 (1943-49) which overlap the present survey on the north and southwest, respectively.

2. Comparison with Prior Surveys

There are no prior surveys of the area by this Bureau.

3. Comparison with Contemporary Air-Photographic Surveys

T-9062 (1946-48), T-9068 (1943-49), T-9073 (1943-49) 1:20,000

The present survey falls within the area of these unreviewed air-photographic surveys. A comparison reveals minor discrepancies in the position of the high-water line. These discrepancies probably result from differences in interpretation in an area having a diurnal tidal range of about 19 ft. Mention, however, is made of the use of 1943 photographs over portions of the area together with admittedly little field inspection. It is presumed that these discrepancies will be considered in the reviews of the air-photographic surveys.

The present survey is adequate for charting.

4. Comparison with Preliminary Chart A-3370(Print date 3/28/50)

a. Topography

The charted shoreline originates with the present survey prior to review. No revisions are necessary.

b. Aids to Navigation

The present survey positions of the fixed aids to navigation are identical with the charted positions and adequately serve the purpose intended.

c. Magnetic Meridian

Declinatoire observations of the magnetic meridian are in good agreement with the charted value.

5. Condition of Survey

a. The survey was neatly inked and conforms to the requirements of the Topographic Manual.

b. The Descriptive Report covers all matters of importance.

6. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

7. Additional Field Work

This is an excellent survey and no additional field work is required. Additional topographic detail in this area has been compiled on air-photographic surveys T-9062, T-9068 and T-9073 (1943-49).

H. R. Edmonston
H. R. Edmonston
Chief, Nautical Chart Branch

Examined and approved:

H. Arnold Karo
H. Arnold Karo
Acting Chief, Division of Charts

L. S. Hubbard
L. S. Hubbard
Chief, Section of Hydrography

W. M. Scaife
W. M. Scaife
Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. T-7036

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
Apr. 22 47	A 3370	Risegani	Before After Verification and Review <i>Examined - no correction</i>
5/5/47	8802	Ris.	Before After Verification and Review <i>Examined - no cor.</i> Before After Verification and Review
1/31/50	9051	J. A. McGraw	Before After Verification and Review <i>no correction</i> Before After Verification and Review Before After Verification and Review Before After Verification and Review Before After Verification and Review Before After Verification and Review

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.

GEOGRAPHIC NAMES

Survey No. T-7036ab

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
<u>Alaska</u>				(fort title)						1
<u>Bristol Bay</u>				" "				USGS		2
										3
<u>Krichak Bay</u>										4
<u>Naknek River</u>								USGS		5
<u>Cape Suvorof</u>										6
<u>Libbyville</u>										7
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Names underlined
in red are approved
2-27-50
L. Heck