

6627

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

DESCRIPTIVE REPORT

Topographic } Registry NO. T - 6627
~~Hydrographic~~ } Sheet No. Field No. -D

1938

State S. E. Alaska

LOCALITY

~~by State~~

Glacier Bay

Pt. Carolus to Pt. Gustavus

1938

CHIEF OF PARTY

H. Arnold Karo

U. S. GOVERNMENT PRINTING OFFICE

3

6627

Applied to drawing of chart 8304 12/13/39 - J.H.W.
Applied to dng. 8306 as overlap from 8304 4/11/40 H.W.

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. D - 1938

REGISTER NO. T-6627 **T 6627**

State S. E. Alaska

General locality ~~Icy Strait~~ Glacier Bay

Locality ~~Entrance - Glacier Bay~~ Pt. Carolus to Pt. Gustavus

Scale 1:20,000 Date of survey June, July, 1938

Vessel M.V. WESTDAHL

Chief of party H. Arnold Karo

Surveyed by D.H. Konichek

Inked by D.H. Konichek

Heights in feet above H.W.L. to ground - to tops of trees

Contour, Approximate contour, Form line interval --- feet

Instructions dated March 10, 1938

Remarks: _____

General Information to Accompany All 1938

Topographic Sheets

Declinatoire and Alidade # 209 were used on all topographic sheets executed in 1938 which includes sheets having field no's, A-38, B-38, C-38, D-38, E-38, ^{T-6627} ~~F-38~~, ^{T-6628, T-6629} and G-38. Declinatoire # 209 was standardized at the Green Lake Magnetic Station at the beginning and at the end of the 1938 field season. The correction was found to be: $1^{\circ} 07' W$. This value depends upon the standardization of compass declinometer # H-19 using a provisional index correction of $+5.2$ to E declination (see Director's letter 40 - C R S dated Oct. 27, 1938) Standard methods were used for standardization of both the declinometer and compass declinatoire.

Heights of islands and rocks were obtained as follows: Heights of rocks covered at all stages of the tide were obtained by measuring the depth to which the telemeter rod was covered when held on the rock, and the time noted. Heights of objects bearing at some stages of the tide, but covered at other stages were obtained by estimating the amount bare at the particular time and noting that time. Heights of objects bare at all stages of the tide were obtained by estimating the height above H.W.L.

All estimations of height were made with a direct comparison with the length of the telemeter rod, where practical these heights were checked by depression or elevation angles taken with the alidade by determining the height of instrument from observations on the water surface at the time the other heights were taken.

Approximate elevations were noted in some instances and were specified to be approximate elevations on the sheets concerned.

Descriptive Report to Accompany Topographic

Sheet No. Register, T-6627 , Field D - 1938.

Icy Strait and Glacier Bay, Alaska.

(a) Date of Instructions:

Work was done under instructions dated March 10, 1938. Project HT - 221.

(b) General Description:

There are no prominent objects on either side of the entrance to Glacier Bay. Pt. Gustavus is long and low with the high ground lying well back from the shore. Pt. Carolus is also low, and the reefs to the eastward of that Point blend with the land, thus making it difficult for a mariner entering Glacier Bay to get accurate bearings. The shore line, in the area shown on the sheet, is generally low and boulder-strewn with occasionally a grass or dirt bank formed by Glacial drift. The shore line to the northeast of triangulation station FALSE 1901-1923 is the exception, and is high and rugged. Descriptive notes on the sheet describe the objects better than can be done in this report.

(c) Landmarks:

There are no landmarks.

(d) Character of Control used:

1901 and 1923 Triangulation stations in Icy Strait were recovered and a second order scheme was carried into Glacier Bay from these recoveries, as fully described in the Triangulation and Seasons reports.

(e) Closing Errors of Traverses Run:

The control points were numerous enough to eliminate any extensive Traverses, and this eliminated any appreciable error in Topography. No adjustment was necessary.

(f) Description of Auxiliary Survey Methods used.

Ordinary survey methods were used, with inaccessible objects located by intersection points. The approximate elevations noted on the sheet were estimated by the Topographer, and are considered to be additional information which will aid in map-making when the 1:80,000 form line sheet of the area is completed and the work is coordinated in the office.

(g) Form Lines:

The instructions did not require form lines on this sheet. A 1:80,000 form line sheet of the area is in the process of being made.

(h) Changes in Topography:

Sheet Registry No. 2619 executed in 1902 on a 1:40,000 scale seems to check in a general way with the 1938 work, but the detail of the old work is not sufficient for any accurate comparisons. It appears that the H.W.L. has changed radically in the vicinity of the large stream lying between triangulation stations FALSE 1901-1923 and CARO 1923-1938.

The fish trap at triangulation station -West Cable House on Fish Trap, 1938 had been removed before the party left the field, and will probably not be replaced in exactly the same location next year, although there were skeleton piles left to

(h) Continued:

be used as guides when it is rebuilt.

The declinatoire observation at Triangulation station FALSE 1901-1923 showed local disturbance so a declinometer observation was taken at that station. The magnetic survey of the area will furnish complete information concerning this discrepancy.

✓
Notice sent
to T.M.S. 6/21/39.

The Department of State, Alaska-Canada Boundary Survey Map, made from photographs in 1907, is of course approximate but was of assistance to the field parties in executing the 1938 work. The large inlet starting at approximately Latitude $58^{\circ}-23'$ Longitude $135^{\circ}-53'$ and running northward to approximately Latitude $58^{\circ}-27\frac{1}{2}'$ Longitude $135^{\circ}-51'$ shown on the boundary survey map does not exist. This area is flat and covered with a growth of small trees, and is being seriously considered by the government for use as a base for land planes. The very nature of the land in the area of the sheet is such that changes in configuration have and will continue to take place with comparative rapidity. This may be the explanation of the variance between work done as long ago as 1907 and the more recent surveys.

(i) Completeness and Reliability:

All topography is complete and reliable except for form lines and elevations which are being done on a form line sheet.

(j) Methods used in Surveying:

The methods used conformed to Standard Surveying Practice.

(k) Junctions with previous work:

No attempt was made to join with the 1:40,000 scale, 1902 topography on sheet # 2619, but the present topography begins at triangulation stations, and is therefore unimpeachable. *See par. 1 of Review.*

(l) Geographic Names:

No new names were used in this area.

(m) Comparison with old surveys:

All noted differences are given under section (h) of this report.

(n) Character of marshes and low lying ground.

The low ground surveyed is indicated fully by note and symbol on the sheet, but the determination of the H.W.L. from topographic station Kip eastward to triangulation station PT. GUSTAVUS E.B. 1929³ is rather indefinite and may change radically during severe storms. The trees and underbrush in this area seem to be encroaching on the grass and marsh area and may soon change the general appearance of this section of the beach.

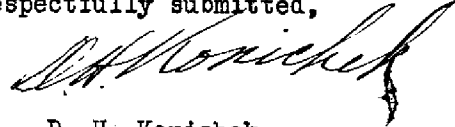
(o) Statistics:

Sheet Registry No. T - 6627

Field No. D - 1938

20.7 statute miles of shore line.


Respectfully submitted,



D. H. Konichek

Aid

Approved and Forwarded,



H. & C. Engineer

Chief of Party.

Remarks

Decisions

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2		" USGB
3		580360
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GEOGRAPHIC NAMES

Survey No. T-6627

GEOGRAPHIC NAMES		Survey No. T-6627		On Chart No.		On previous survey No.		On U. S. quadrangle Maps		From local information		On local Maps		P. O. Guide or Map		Rand McNally Atlas		U. S. Light List	
Name on Survey		A,	B,	C,	D	E	F	G	H	K									
<u>Icy Strait</u>																			1
<u>Glacier Bay</u>																			2
<u>Point Carobus</u>																			3
<u>Point Gustavus</u>																			4
<u>Ancon Rock</u>																			5
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Names underlined in red approved

by U. Heck on 7/5/89

M 234

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT

~~PHOTO STAT~~

~~NO COPY~~

No. T-6627

received Mar. 18, 1939
registered
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
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RETURN TO

82	T. B. Reed
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✓ JBR

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 6627 (1938) FIELD NO. D-38

Point Carolus to Point Gustavus, Glacier Bay, Southeast Alaska
Surveyed in June and July 1938, Scale 1:20,000
Instructions dated March 10, 1938 (WESTDAHL)

Plane Table Survey

Aluminum Mounted

Chief of Party - H. A. Karo
Surveyed by - D. H. Konichek
Inked by - D. H. Konichek

1. Junctions with Contemporary Surveys

The junctions with T-6628 (1938) on the northeast and T-6629 (1938) on the northwest are satisfactory.

The junction with T-2619 (1902) at triangulation station False 1901-1923 is satisfactory.

The present survey does not make a good junction with T-2567 (1901) on the east. Discrepancies up to 50 meters exist and are probably due to differences of interpretation of the high water line in marshy areas as well as natural changes that have taken place since the old survey was made (see paragraph "n" of the descriptive report). The present survey should be used for charting the small area covered by both surveys.

2. Comparison with Prior Surveys

(a) T-2517 (1900) Scale 1:53,333

This reconnaissance survey shows the shoreline in the vicinity of Point Gustavus as a dashed line. The information is of no value for charting purposes and should be disregarded.

(b) T-2619 (1902) Scale 1:40,000

The present survey falls almost entirely within the area covered by T-2619 (1902). The agreement of the old and present survey is generally good except in marsh areas. No form lines are shown on the present survey but the form lines on the old survey will be compared with the new form line survey of this locality when it is received.

The Indian shacks in Lat. $58^{\circ}23.85'$, Long. $135^{\circ}03.56'$ and in Lat. $58^{\circ}21.12'$, Long. $136^{\circ}05.56'$ (charted)

were not located by the present survey. They were not mentioned in the descriptive report and it is probable that they do not exist at the present time. They should be expunged from the charts. Within the common area, the prior survey contains no information which needs to be retained and should be superseded by the present survey in future charting.

(c) T-2852 (1907) Scale 1:80,000

The original sheet was sent to the U. S. Boundary Commission January 11, 1917. For a comparison of the old survey with the present - see the last part of paragraph "h" on page 3 of the descriptive report.

The form lines on the reduced copy of the original survey now on file in this office will be compared with the new form line survey when it is received.

The present survey shows the shoreline details more accurately on a larger scale and should, within the common area, supersede the information from T-2852 (1907) for future charting purposes.

3. Comparison with Chart No. 8304 (Latest print dated Dec. 1, 1938) and Chart 8306 (Latest print dated April 13, 1939)

Within the area of the present survey the charts are based on surveys discussed in the foregoing paragraphs of this review and no further consideration is necessary.

4. Condition of Survey

(a) The descriptive report is satisfactory.

(b) The field drafting is good.

(c) The highwater line at triangulation station Point Gustavus East Base 1923, ends on both sides of the island opposite the station. This island with an elevation of six feet, does not appear on T-2567 (1901) and consequently no junction can be made.

5. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project.

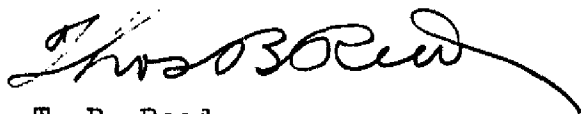
6. Additional Field Work Recommended

No additional field work is recommended. However, if practical the extent of the island east of Point Gustavus East Base triangulation station should be determined to avoid an inconsistency in the junction on the chart.


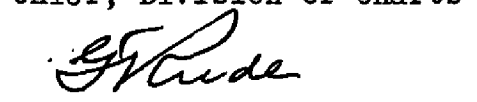
7. Reviewed by - Leo S. Straw, June 20, 1939.

Inspected by - H. R. Edmonston

Examined and approved:



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


Chief, Section of Field Work
Chief, Division of Charts
Chief, Division of H. & T.