

9251

9252

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Diag Chts Nos. 8802 & 9103

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TopographicField No Ph-8B(46) Office No. T-9251 & T-9252

LOCALITY

State AlaskaGeneral locality Bristol Bay AreaLocality Hagemeister Island194 8.

CHIEF OF PARTY

A.N. Stewart, Chief of Party, Div. of Photogrammetry, Washington, D.C.

LIBRARY & ARCHIVES

DATE May 3, 1955

DATA RECORD

T-9251 & 9252

Project No. (II): Ph-8B(46)

Quadrangle Name (IV): Hagemeister IV and V

Field Office (II): Photogrammetric Party

Chief of Party: A. N. Stewart

Photogrammetric Office (III):

Officer-in-Charge: Louis J. Reed, Chief,
Stereoscopic Mapping Section

Instructions dated (II) (III):

25 April 1947, 21 April 1948

Copy filed in Division of
Photogrammetry (IV)
Office Files.

Method of Compilation (III): Reading Plotter

Manuscript Scale (III): 1:20,000

Stereoscopic Plotting Instrument Scale (III): 1:20,000

Scale Factor (III): 1:1

Date received in Washington Office (IV): 8-4-49

Date reported to Nautical Chart Branch (IV): 8-4-49

Applied to Chart No.

Date:

Date registered (IV): 8-10-53 B.J.C.

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): NA-1927

Vertical Datum (III):

IV The difference between *Unadjusted* Datum
and N.A. 1927 Datum is Lat. plus *12.1 m.*
and Long. *minus 2.7 m.* *hch.*

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (5) refer to sounding datum
..., mean low water or mean lower low water

IV - PEAK "E", 1948
V - CALM POINT, 1948

IV The difference between *Unadjusted* Datum
and N.A. 1927 Datum is Lat. plus *11.8 m.*
and Long. *minus 3.0 m.* *hch.*

Reference Station (III):

Lat.: IV - 58-34-55.03 *(Unadjusted)* Long.: 161-01-43.44 *(Unadjusted)*
V - 58-34-43.554 *(Unadjusted)* Long.: 160-55-01.618 *(Unadjusted)*

Plane Coordinates (IV): WAC 2500-meter

State: Alaska

Zone: Special

Not used in compilation procedure.

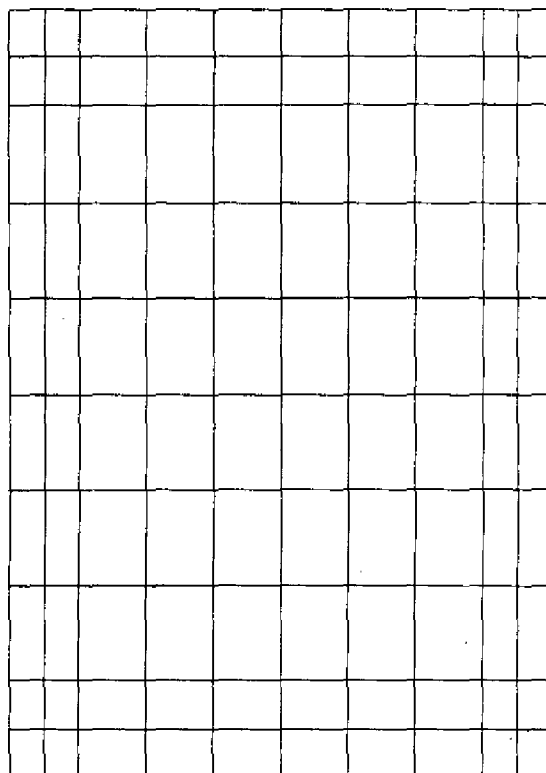
Y=

X=

Military Grid: Universal Transverse Mercator, Zone #4
(Not on Manuscript.)

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,
or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.



Areas contoured by various personnel
(Show name within area)
(II) (III)

100% by Orvis N. Dalbey

on

Reading Plotter No 1.

DATA RECORD

Field Inspection by (II): **A.N. Stewart**

Date: **Summer 1948**

Planetable contouring by (II): **none**

Date: **—**

Completion Surveys by (II): **none**

Date: **—**

Mean High Water Location (III). (State date and method of location):

About 50% ~~located~~ ^{identified} by 1948 field inspection; balance ~~delineated~~ ^{identified} on the Reading Plotter No 1.

Projection and Grids ruled by (IV): **Ruling Machine**

Date: **15 Mar 49**

Projection and Grids checked by (IV): **Wheatley E. Ward**

Date: **15 Mar 49**

Control plotted by (III): **Robert B. Sugden**

Date: **22 Jun 49**

(manuscript)

Control checked by (III): **John B. McDonald**

Date: **23 Jun 49**

Radial Plot ~~or Stereoscopic~~
Control ~~checked~~ (III):

Roscoe J. French

Date: **11 Apr 49**

Reading Plotter Delineation ~~Stereoscopic~~ Photometry **Orvis N. Dalbey**

Date: **31 May 49**

~~Stereoscopic~~ under
Contours **William D. Harris**

Date: **—**

compiled

Manuscript ~~checked~~ by (III): **Robert L. Sugden**

Date: **19 Jul 49**

Photogrammetric Office Review by (III):

Date: **—**

Elevations on Manuscript
checked by (II) (III):

Louis J. Reed

Date: **25 Jul 49**

Camera (kind or source) (III):

U S C & G S 9-lens 8 1/2"

Number	Date	Time	Scale	Stage of Tide
23182				
thru				
23190		12:00		
23197 A	9-1-48	thru	1:20,000	1' below MHW
23197 B		12:35		4.4 ft above MHW
23197 C				MCW AC
23197 D				

Tide (III)

Diurnal

* See Remarks BP

Reference Station: Nushagak Bay (150°)

Subordinate Station: ~~Hagemeister~~

Subordinate Station: Black Rock, Walrus Islands.

Ratio of Ranges	Mean Range	Spring Range
	15.2	19.5
	4	5.4
	6	10

(1 hr)

Washington Office Review by (IV): B. J. Colner

Date: 11/18/52

Final Drafting by (IV):

Date: 5/13/53 (9252)
5/22/53 (9251)

Drafting verified for reproduction by (IV):

Date: 5-14-53 (9252)
6-4-53 (9251)

Proof Edit by (IV):

Date: 7-6-53 (9251)
6-4-53 (9252)

Land Area (Sq. Statute Miles) (III): about 13 sq mi (9251); 21.99 mi (9252)

Shoreline (More than 200 meters to opposite shore) (III): about 11 miles (9251); 8.5 mi (9252)

Shoreline (Less than 200 meters to opposite shore) (III): none

Control Leveling - Miles (II): none

Number of Triangulation Stations searched for (III): one Recovered: one Identified: one

Number of BMs searched for (II): none Recovered: Identified:

Number of Recoverable Photo Stations established (III): 9251 = two; 9252 = two

Number of Temporary Photo Hydro Stations established (III): 9251 = nine; 9252 = four

* Remarks: ~~Tide Predictions, Alaska were prepared by the Division of Tides and Currents for the more accurate prediction of tides at various points in this part of the project. Details for T-9251 & T-9252 are on the reverse side.~~

* See reverse side of Page.

* BRISTOL BAY

Reference Station NUSHAGAK BY
Time meridian 150°W

HAGEMEISTER ISLAND to CAPE NEWENHAME

Times of high and low waters subtract 4^h 30^m

Heights of high waters multiply by ratio 0.55

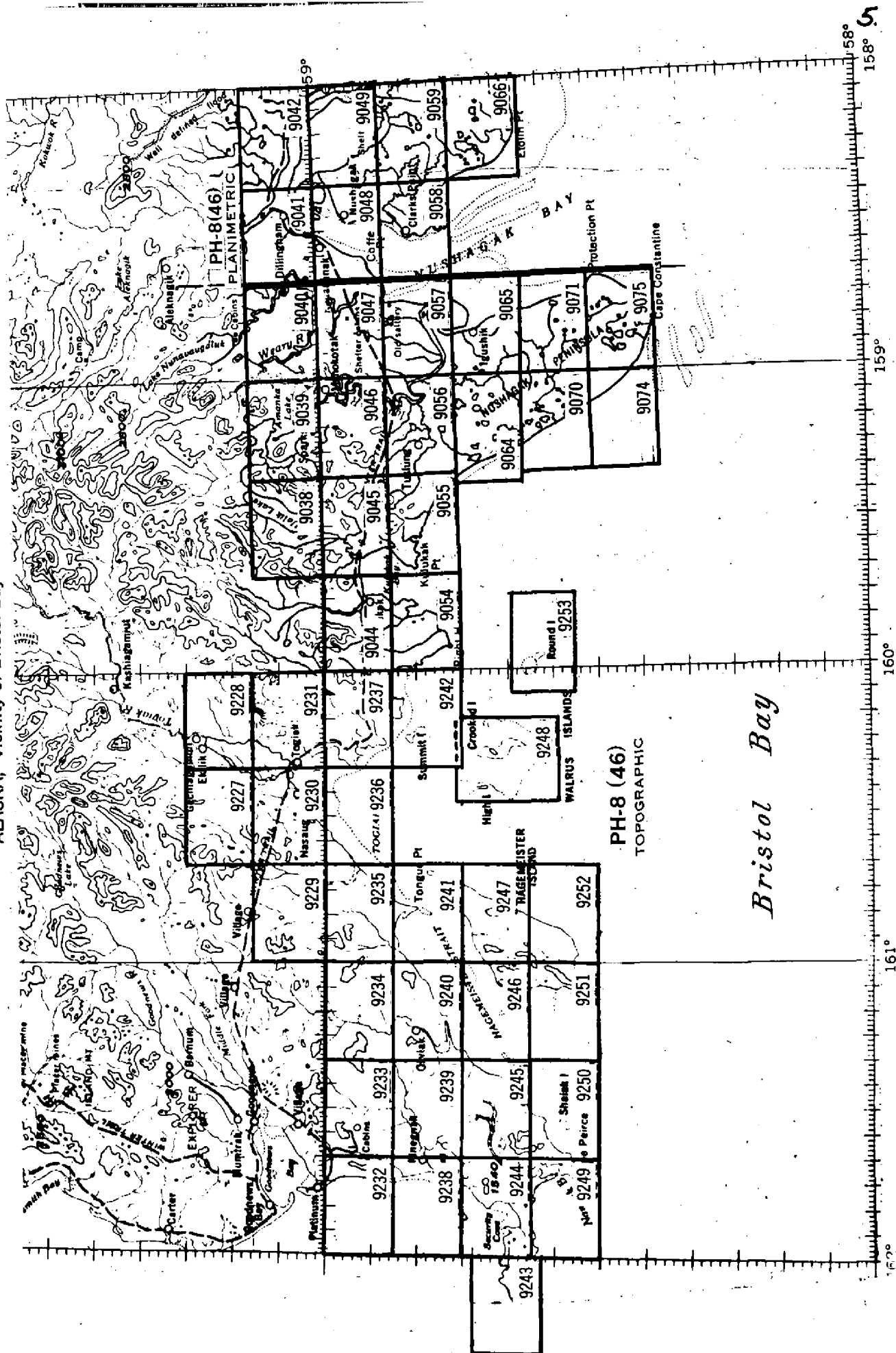
Heights of low waters multiply by ratio 0.85

Subtract 6.0 feet to refer heights to MSL

* Since receiving the above tide information
it was found more practicable to determine
the stage of tide from
Station Black Rock, walrus I.

RJC

ALASKA, Vicinity of Bristol Bay



Summary to Accompany T-9251 & T-9252

Ph-8(46) covers the north shore of Bristol Bay in Alaska and runs from the Egegik River and Kvichak Bay on the East to Cape Newenham on the West.

It is divided into three parts as follows:

Ph-8(46)A includes 23 planimetric maps in the general area of Kvichak Bay and extends from Egegik Bay to Nushagak Bay.

Ph-8(46)B is composed of two shoreline surveys on the Egegik River between Egegik Bay and Lake Becharof.

Ph-8(46) includes 45 topographic maps covering the area from Nushagak Peninsula westward to Cape Newenham and north to Goodnews Bay. It includes offshore islands such as Hagemeister and the Walrus Islands.

T-9251 covers the southwestern portion and T-9252 covers the southeastern portion of Hagemeister Island. This area is bounded by Hagemeister Strait and Bristol Bay.

Each map manuscript consists of one sheet, $7\frac{1}{2}$ -minutes in latitude and 20 minutes in longitude, at a scale of 1:20,000, with a contour interval of *50 feet. A clothbacked lithographic print of each map at the compilation scale will be registered with the combined descriptive report in the Bureau Archives. These maps will not be published.

*100 feet on Hagermeister Island - see map legend.

~~Field Inspection Report~~

See p. 8 for references to Field Reports.

1. Description of the Area:

Hagemeister Island, lying south of Tongue Point and near the southwestern limit of Togiak Bay, has a length of 25 miles and maximum width of 10 miles. The long axis of the island lies in a NE-SW direction, approximately parallel to the mainland shore. It is quite mountainous. The highest elevations lie near the western shore on the southern half of the island, and are rocky. The northerly end is relatively low, rising to the south along the eastern shore in a series of rolling, tundra covered hills having alder patches on their slopes and rock out-crops near their tops. Along the eastern shore the highest elevation is somewhat north of the center of the island. Between the elevations along the eastern and western shores there is a low pass through the island extending from just west of its southeasterly point towards Tongue Point.

Forming the extreme northerly tip of the island there is a low, gently rolling, tundra covered elevation. Bounding this, next to the sea, there are rocky bluffs about 30 feet high, with short stretches of gravel beach between small rocky points. This elevation probably at one time was a detached islet. Behind it, to the south, for 1 mile along the westerly and 7 miles along the easterly shore there is a low, flat, grass covered area consisting of a series of old beach lines built up by the sea, and along which there is a sand and gravel beach. Along the eastern shore, behind the old beaches there is a bluff about 30 feet high which approaches the shore at the south end of the old beaches.

For the next 6 miles to the south the bluff is of earth and rock. It is about 100 feet high and immediately adjacent to the shore, with some points around which a man can not walk at high water. The narrow beaches are of sand and gravel. For the next 9 miles the foreshore is another low area of grass covered, built up old beach lines. Behind this the bluff line slowly recedes from shore, maintaining its elevation of 100 feet for about 4 miles, then rises to about 250 feet, and drops again as it approaches shore at the south end of the old beach area. At this point the shore is slowly curving to the westward, forming the most southeasterly point of the island.

Along the south shore, 6 miles in length, the bluffs are generally of bare earth from 50 to 75 feet high, but with projecting points having rock faces 75 to 100 feet high. Behind the rock faces the ground rises steeply to higher elevations. The southwest tip of the island is prominent and rocky, the beach for one mile eastward from it being of broken rock of various sizes. Otherwise there are sand and gravel beaches along the base of the bluff, except that around some of the rocky points the high water line is at the base of the rocky faces.

Northerly from the southwest tip of the island, along the west shore for 6 miles the bluff is bold and from 75 to 150 feet high. It becomes lower towards the northerly end. It is of earth except for several points of land, at which there are a few close inshore off-lying rocks. The beaches are of gravel mixed with boulders. From the northerly end of this section a long, grass covered sand spit, with sand and gravel beaches, extends northwesterly into Kagaolister Strait towards the mouth of the Osvisk River.

From the base of the sand spit the shore extends northward another 5 miles to the base of a second sand spit one mile in length that curves sharply westward, then southward parallel to the shore. The water between the two spits is very shoal, and a large area dries at low tide. The bluff along the main shore between the spits is from 25 to 50 feet high, the face being covered with a mixture of alder, grass, and tundra. At the foot of this bluff there is a narrow beach of sand and gravel.

At the northerly and smaller sand spit the shoreline turns northeasterly, parallel to the mainland shore for 16 miles to the NE tip of the island. The shore is undulating, with several wide, open bights. In general the face of the bluff is of earth, and it is from 50 to 100 feet high. It is broken by two sections of 1 to 2 miles in length having rock faces, and by two pronounced valleys carrying good sized streams. Towards the northeasterly end the bluffs are lower, and, in some places, disappear entirely. Behind the bluffs are slopes covered with alder and tundra. In general the beaches are of sand and gravel except that along the rocky faces they are of boulders with some gravel.

1-25.

Photogrammetric Control identification was made prior to compilation by a photogrammetric field party under the direction of A. N. Stewart. The field report on this work is included in *two Season's Reports entitled, "Project Report - Aerial Photograph Control and Inspection, Bristol Bay, Alaska - Project Ph-8(46)", dated "May to September 1947" and "May" to July 1948".

* Filed in Bureau Library under Library No. 138 (1947) and 142 (1948) respectively.

MAP T-9251 & 9252 PROJECT NO. Ph-8B(46) SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ν -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
<u>T-9251</u>									
Peak "D"	G-7798-2	NA 1927	58 35 13.42 161 01 23.24	Elev.= 1549ft.			415.2 375.5	1441.3 593.9	
Peak "E"	"	"	58 34 55.03 161 01 43.44	Elev.= 1617ft			1702.7 701.9	153.8 267.6	
<u>T-9252</u>									
Calm Point, 1948	"	"	58 34 43.554 160 55 01.618	Elev.= 832ft.			1347.6 26.1	508.9 943.4	
Calm Point Sub-Station	"	"	58 34 160 52	Elev.= 6ft.			1369.8 934.2	486.6 35.5	

1 FT. = 3048006 METER

COMPUTED BY:

DATE

CHECKED BY:

DATE

M-2388.12

9

COMPILATION REPORT26. Control:

Adequate control was furnished for this quadrangle and the four other quadrangles covering Hagemeister Island; a single radial plot was laid. For this reason control will be discussed herein for the complete plot.

Horizontal control consisted of five triangulation stations and four intersected peaks. Sub-stations were available for four of the five permanent stations. HAGEMEISTER and PEAK 163 failed to aid in controlling the plot; the station could not be identified on the photographs and the peak was apparently observed in error. The triangulation stations falling within each quadrangle covered by this plot are listed on separate pages.

Vertical control for the compilation was furnished by a combination of mean sea level and elevations furnished by either field or office computations ~~from field~~ ^{Listed in} observations on certain natural objects. The ~~field~~ ^{DRT-4241} computations supplied the elevations on all but STRAIT of the nine horizontal control stations; it was office computed. In addition, ~~seventeen~~ other elevations were made available for compilation after office computations based on field observations. All vertical control was used in contouring and held to within the tolerance specified by national map standards. A list of elevations is contained on a separate page of this report.

27. Radial Plot:

The radial plot for Hagemeister Island (five quadrangles) was prepared by the Graphic Compilation Section, Washington Office. The Graphic Compilation Section also furnished the data for this chapter and Chapter 26 on Control.

The plot was executed in the normal manner on base sheets (dyrite) having a polyconic projection to which the horizontal control was scaled. Control and all azimuths were registered on the compilation photographs using Reading Plotter#2. The uniform character of the terrain made the selection of picture points difficult. An average performance of control identification in the field was accomplished and made available for this plot. Considerable confusion developed at the start of the procedure to transfer the identification to the compilation photography but, after several attempts at bridging by templet lay-down, a reasonably strong plot was achieved, and, at the same time, control identification was verified to tolerance.

28. Detailing:

Planimetry and contours were delineated on the Reading Plotter (No.1) using rectified metal-mounted negatives of the original photographs of the radial plot. Field inspection was not complete; it included some shoreline plus some offshore rocks and foul areas. The usability of the inspection was made difficult by its being made on field pictures of a date one year previous to the compilation pictures; shoreline details had altered somewhat and judgement had to be exercised in delineating the details included in the field inspection. After delineation the compiler has carefully checked the result against the field inspection, and the manuscript compilation is considered accurate within requirements and shall supersede all previous compilations.

29. Supplemental Data:

None. No hydrographic or graphic control surveys had been made in the area prior to this compilation.

32. Details Offshore from HWL:

Offshore details shown on the manuscript are a digestion of instrument delineation and incomplete field inspection. The compilation is the best available at this time, is considered quite complete, but should be compared and brought into agreement with inshore hydrography if and when made available.

35. Hydrographic Control:

Several natural features were photo-identified by field inspection for future use as hydrographic control. They were positioned during compilation and are symbolized on the manuscript as small black dots identified by numbers with leaders. To aid the hydrographer, a list of this control has been placed at the margin of the manuscript with descriptions and numbers, the descriptions having been taken from the backs of the field photographs on which the stations were identified. The number of the photograph on which each station is identified and described is available on page 41 of A. N. Stewart's 1948-Season Report for Project Ph-8(46). No hydrographic stations were selected ~~and plotted~~ in the compilation office.

37. Topographic Stations:

A total of 13 topo stations were established along the perimeter of Hagemeister Island and marked with

standard disks. Two fall within the limits of T-9251: CHAP, and FROG; and two fall in T-9252: FANG and MOON. None were located by triangulation; they were positioned during the radial plot procedure and are shown on the manuscript by symbol and name. Station descriptions are listed on the margin of the manuscript for ready reference by field parties.

40. Quality of Contours:

All contours on this compilation conform to the national standards of map accuracy for a contour interval of 50 feet except the 25-foot contour which conforms to 25-foot interval accuracy requirements.


Louis J. Reed, Chief,
Stereoscopic Mapping Section

VERTICAL CONTROL

Hagemeister Island
Ph-8B(46)

T-9241

Tongue Point.....~~13~~^{9.0}* ft.
Strait.....~~40~~⁴¹³⁸

T-9246

Hagemeister.....~~1512~~¹⁵⁰⁹
Peak 170.....1315
Peak B.....~~1758~~¹⁷⁵⁵
Peak 175.....1555
Peak 168.....1170
Peak 173.....1245

T-9247

Island.....78~~2~~¹
Peak 171.....1060
Peak 172.....640
Peak 270.....1025
Peak 271.....1230
Peak 272.....990
Peak 273.....710
Peak 274.....1125
Peak 275.....1170
Peak 278.....840
Peak 283.....1005
Peak 276.....1195
Peak 169.....1300

T-9251

Peak E.....161~~7~~⁴
Peak 164.....1783*
Peak D.....~~1549~~¹⁵⁴⁹
Peak 166.....1395

T-9252

Calm Pt.....8~~2~~²⁹

* Field computations; balance are office computations.

14
Geographic Names.

T-9251-9252.

Alaska

Bristol Bay

Hagemester Island

Hagemester Street

T-9251

Names underlined in red
are approved. 11-21-52
L. Heck

Review Report T-9251 & T-9252
Topographic Maps
November 18, 1952

62. Comparison with Registered Topographic Surveys.- None

63. Comparison with Maps of Other Agencies.-

USGS Alaska Map 18, Goodnews District, Alaska,
1:250,000, 1938 edition.

There are no significant differences between the
above map and T-9251-52.

64. Comparison with Contemporary Hydrographic Surveys.- None

65. Comparison with Nautical Charts.- None

66. Adequacy of Results and Future Surveys.-

Further field edit is not considered necessary prior
to hydrographic surveys in the area.

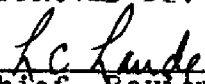
These maps comply with the National Standards of Map
Accuracy.

67. Contour Interval.-The contour interval for Hagemeister
Island is 100 feet with 50-foot supplementary contours.
The 25-foot contour has been drawn throughout these maps.

Reviewed by:


B. J. Colner

APPROVED BY:


Chief, Review Branch
Div. of Photogrammetry


Chief, Nautical Chart Branch
Div. of Charts GFD


Chief, Div. of Photogrammetry


Chief, Div. of Coastal Surveys

HORIZONTAL DATUM ADJUSTMENT

Bristol Bay, Alaska

The subject maps were radial plotted on unadjusted (Field) datum which was subsequently adjusted to the North American 1927 datum by the Division of Geodesy. The datum correction has been computed for each sheet, and stamped into the Descriptive Report on page 1, and on the manuscripts and registered cloth-backed copies near the title block. However, as the title block of each clothback sheet contains the note, "1927 North American Datum", it was necessary to stamp the word, "(Unadjusted)" beside this datum note in the title block of each sheet.

See the special report, Horizontal Control Datum, Ph-8(46), Ph-8A(46), and Ph-8B(46), filed with the Completion Report for the project for details and lists of the maps, reports, and registration copies marked with this adjustment. The following is a list of the maps in the projects:

Ph-8(46), TOPOGRAPHIC

T-9038 thru T-9040
9044 " 9047
9054 " 9057
9064,-9065,-9070
9071,-9074,-9075
9227 thru 9253

Ph-8A(46), PLANIMETRIC

T-9041 thru T-9043
9048 " 9053
9058 " 9063
9066 " 9069
9072,-9073
9076,-9078

Ph-8B(46), SHORELINE

T-8873 (E&W) and T-8874

SURVEY NO. T.9251

Record of Application to Charts

3ma

M.2168-1

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NAUTICAL CHARTS BRANCH

SURVEY NO. T.9252

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.