9246
9247

Original

Diag. Chts. Nos. 8802 & 9103

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

# DESCRIPTIVE REPORT

Type of Survey: Topographic

Field No. ..... Office No. T-9246 & 9247

## LOCALITY

State: Alaska

General locality: Bristol Bay Area

Locality: NAGHIRTSER ISLAND

1948

CHIEF OF PARTY

A. N. Stewart, Chief of ~~Field~~ Party
Div. of Photogrammetry, Wash. D.C.

LIBRARY & ARCHIVES

DATE Jan. 14, 1955

8-1870-1 (1)

9246
9247

# DATA RECORD

T-9246 & 9247

Project No. (II): Ph-8B(46) Quadrangle Name (IV): Hagemeister II and III

Field Office (II): Photogrammetric Party Chief of Party: A. N. Stewart

Photogrammetric Office (III): Washington, D. C. 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): 8-8-49

Applied to Chart No. Date: Date registered (IV): 7/28/53 B.J. COLNER

Publication Scale (IV): Publication date (IV):

Geographic Datum (III): NA-1927 (Unadjusted)

T9246

II The difference between Unadjusted Datum and N.A. 1927 Datum is Lat. plus/[redacted] 12.6 m. and long. [redacted]/minus 3.6 m. ✓ LCL

Vertical Datum (III):

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

T9247

The difference between Unadjusted Datum and N.A. 1927 Datum is Lat. plus/[redacted] 12.1 m. and Long. [redacted]/minus 4.4 m. ✓ LCL

T-9246 II - HAGEMEISTER, 1948
T-9247 III - ISLAND, 1948

Reference Station (III):

T9246 II-58-41-41.846 (Unadjusted) Long.: 161-00-59.357 (Unadjusted)
T-9247 III-58-44-12.583 160-48-16.472

~~Adjusted~~ ✓
[redacted]

Plane Coordinates (IV): WAC 2500-meter State: Alaska Zone: Special

Not used in compilation procedure.

Y= X=

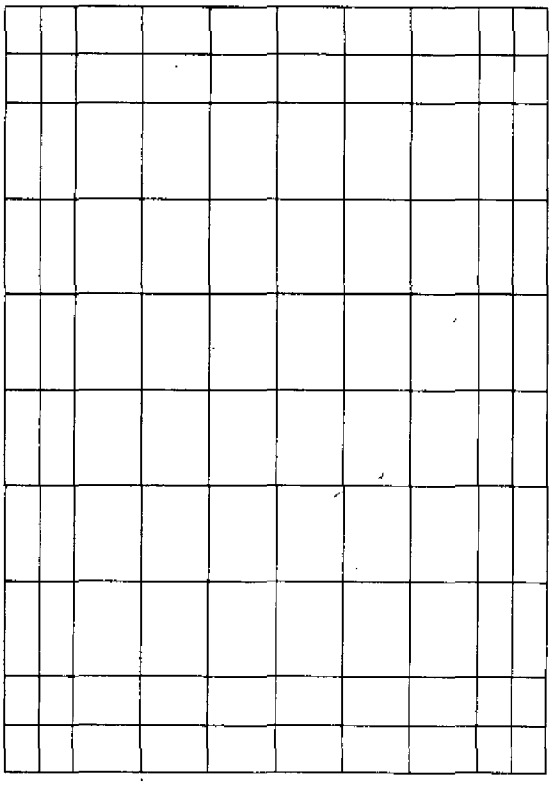
Military Grid: Universal Transverse Mercator, Zone #4
(Not on manuscript.)

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.



M-2618-12(4)



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 80% ~~located~~ identified by 1948 field inspection; balance ~~delineated~~ identified on 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 L. Sugden Date: 20 May 49

(Manuscript)

Control checked by (III): John B. McDonald Date: 20 May 49

Radial Plot ~~XXXXXXXXXX~~ ~~XXXXXXXXXX~~ by (III): Roscoe J. French Date: 11 Apr 49

Reading Plotter Delineation ~~Stereoscopic instrument completion~~ (III): Planimetry Orvis N. Dalbey Date:
under
Contours William D. Harris Date: 10 May 49

Manuscript ~~XXXXXX~~ compiled by (III): Robert L. Sugden Date: 16 Jun 49

Photogrammetric Office Review by (III): Date: —

Elevations on Manuscript checked by (II) (III): Louis J. Reed Date: 25 Jul 49



M-2618-12(4)

Camera (kind or source) (III): U S C & G S 9-lens, 8½"f

PHOTOGRAPHS (III)

| Number | Date | Time | Scale | Stage of Tide |
|---|---|---|---|---|
| 23179-83<br>23189-90<br>23191A-B<br>23192<br>23195C-D<br>23197C-D-E | 9/1/48 | 12:00 thru 12:35 | 1:20,000 | 1 ft below MHW<br>~~4.4ft above MLLW~~ |

Tide (III)

| | | Ratio of Ranges | Mean Range | Diurnal ~~Spring~~ Range |
|---|---|---|---|---|
| Reference Station: | * ~~See Remarks~~ Nushagak Bay (150°) | | 15.2 | 19.5 |
| Subordinate Station: | ~~Hagemeister~~ | ~~(1 hr) 0.4~~ | ~~5.4~~ | ~~9.0~~ |
| Subordinate Station: | Black Rock, Walrus Islands | | 6 | 10 |

Washington Office Review by (IV): B. J. Colner Date: 11-6-52

Final Drafting by (IV): J. J. Day 9246 9247 Date: 3-6-53 " 5-8-53

Drafting verified for reproduction by (IV): W. O. Wallin 9246 9247 Date: 3-13-53 5-13-53

Proof Edit by (IV): 9246 ~~9245~~ 9247 H. Steffler " Date: 4/23 53 ~~6-4-53~~ 6-4-53

Land Area (Sq. Statute Miles) (III): 9246 = 13 sq mi; 9247 = 58 sq mi

Shoreline (More than 200 meters to opposite shore) (III): 9246 = 21 mi; 9247 = 16 mi.

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

Control Leveling - Miles (II): none

Number of Triangulation Stations searched for (III): two Recovered: two Identified: two (1 ea quad)

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

Number of Recoverable Photo Stations established (III): 9246 = three; 9247 = four

Number of Temporary Photo Hydro Stations established (III): 9246 = one; 9247 = three

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 projedt. Details for T-9246 & 9247 are on the reverse side of this page.~~

* See reverse side of Page.



M-2618-12 (4)

*BRISTOL BAY

Reference Station NUSHAGAK BAY
Time meridian 150°W

HAGEMEISTER ISLAND TO CAPE NEWENHAM:

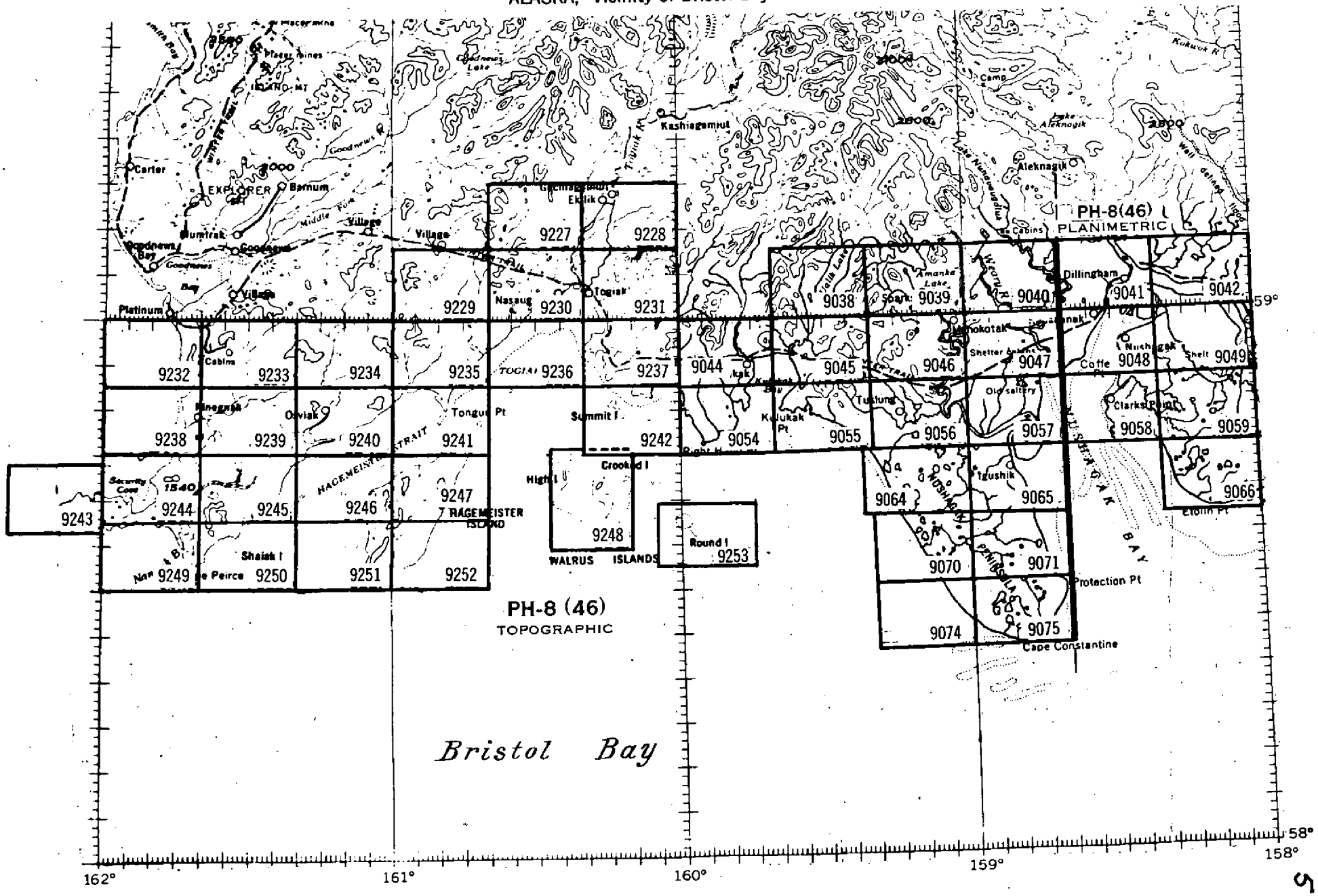
| | |
|---|---|
| Times of high ~~xxxx~~ and low waters subtract | $4^h30^m$ |
| Heights of high waters multiply by ratio | 0.55 |
| Heights of low waters multiply by ratio | 0.85 |
| Subtract 6.0 feet to refer heights to MSL | |

3-6-63
3-13-63

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

# TOPOGRAPHIC MAPPING PROJECT PH-8 (46)

ALASKA, Vicinity of Bristol Bay



Summary to Accompany T-9246 & 9247

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-9246 contains the northwesterly portion of Hagemeister Island and the easterly portion of Asigyugpak Spit. The area is bounded by Hagemeister Strait.

The map manuscript consists of one sheet, 7½ minutes in latitude and 20 minutes in longitude, at a scale of 1:20,000, with a contour interval of 1/50 feet. A cloth-backed lithographic print of the map at the compilation scale will be registered with the Descriptive Report in the Bureau Archives. This map will not be published.

* T-9247 contains the easterly portion of Hagemeister Island. The area is bounded by Hagemeister Strait and Bristol Bay.

1/ 100 feet on Hagemeister Island - see map legend.

~~Field Inspection Report~~

See p. 8 for references to Field Reports.

1. Description of the Area (Hagemeister Is.):

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 elevations 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.

COMPILATION REPORT (Hagemeister Island, only)

26. 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 observations on certain natural objects. The ~~field~~ computations supplied the elevations on all but STRAIT of the nine horizontal control stations; it was office computed. Listed in DR T-9241 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 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 ~~of~~ 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, and 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. ~~These~~ Four fall within the limits of T-9246: ABLE, BABE, IVAN, and ZABU; four fall in T-9247: GASP, YELL, IDOL, and MAST. 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

41. Completion of Compilation, October 1950:

The original compilation as described in this report covered the area of Hagemeister Island only. A small portion of mainland has been added in the NW corner of the manuscript, and the end of a sand spit has been added along the western border. These additions have been compiled as a part of radial plot No. 3, Ph-8B, and are added at this time. Data covering the additions will be the same as found in the descriptive report for map manuscript T-9245, plus the radial plot report found in report T-9238. No control other than one topo station, ABLE, 1948, is added to the sheet.

(?

Louis J. Reed, Chief,
Stereoscopic Mapping Section

T-9246
T-9247. Geographic Names.

Alaska
Bristol Bay
Hagemeister Island
Hagemeister Strait
Asigyugpak Spit (T-9246) Names underlined in red are approved. 11-24-52

# VERTICAL CONTROL

Hagemeister Island
Ph-8B(46)

## T-9241

Tongue Point.....~~13~~ 9.0* ft.
Strait.....~~40~~ ~~41~~ 38

## T-9246

Hagemeister.....15~~13~~ 09*
Peak 170.....1315
Peak B.....1759*5
Peak 175.....1555
Peak 168.....1170
Peak 173.....1245

## T-9247

Island..... 78~~X~~ 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*
Peak 166.....1395

## T-9252

Calm Pt..... 8~~32~~ 29*

* Field computations; balance are office computations.

Review Report T-9246 & T-9247
Topographic Maps
November 6, 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-9246-47.

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

B. J. Colner

APPROVED

L C Lands 11/18/54

Chief, Review Branch
Div. of Photogrammetry

Chief, Nautical Chart Branch
Division of Charts

Chief, Div. of Photogrammetry

Chief, Div. of Coastal Surveys

10/1/55

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 | Ph-8A(46), PLANIMETRIC |
|---|---|
| T-9038 thru T-9040 | T-9041 thru T-9043 |
| 9044 " 9047 | 9048 " 9053 |
| 9054 " 9057 | 9058 " 9063 |
| 9064,-9065,-9070 | 9066 " 9069 |
| 9071,-9074,-9075 | 9072,-9073 |
| 9227 thru 9253 | 9076,-9078 |

Ph-8B(46), SHORELINE

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

# NAUTICAL CHARTS BRANCH

SURVEY NO. T. 9246

## Record of Application to Charts

| DATE | CHART | CARTOGRAPHER | REMARKS |
|---|---|---|---|
| Feb. 1958 | 9103 | L.S.S. | ~~Before~~ After Verification and Review |
| | | | |
| 1-5-70 | 9103 | H. Radden | Considered adequate appd until reconstructed<br>~~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 |
| | | | |
| | | | 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.

# NAUTICAL CHARTS BRANCH

SURVEY NO. T.9247

## Record of Application to Charts

| DATE | CHART | CARTOGRAPHER | REMARKS |
|---|---|---|---|
| | | | 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 |
| | | | |
| | | | 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.