

9142

9142

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	SHORELINE
Field No.	Office No. T-9142
LOCALITY	
State	ALASKA
General locality	PRINCE WILLIAM SOUND
Locality	SQUIRE ISLAND
1950-57	
CHIEF OF PARTY	
G. A. Nelson	Field
L. W. Swanson	Office
LIBRARY & ARCHIVES	
DATE	

DATA RECORD

T - 9142

Project No. (II) ⁶¹⁵² (PH-152) (office) Quadrangle Name (IV): **SQUIRE ISLAND**
 PH-39(48) } Field
 CS-277 }
 Field Office (II): Ship **LESTER JONES** Chief of Party: **George A. Nelson**
 Photogrammetric Office (III): **Washington, D. C.** Officer-in-Charge: **L. W. Swanson**
 Instructions dated (II) (III): Copy filed in Division of
 16 March 1951 (field) Photogrammetry (IV)
 31 December 1954 (office) 731 mkl Office files
 11 February 1955 (office) 732 mkl

Method of Compilation (III): **Graphic**Manuscript Scale (III): **1:10,000**

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): **1.0**

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV):

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III):

Vertical Datum (III):

Preliminary radial plot laid on
N.A. 1927 office and field-
identified control

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

Reference Station (III): **PLEIADES, 1933**

Lat.: **60-13-41.924 1297.5 m.**
 (559.5)

Long.: **148-00-53.071 817.0 m.**
 (106.6)

Adjusted
 Unadjusted

Plane Coordinates (IV):

State:

Zone:

Y=

X=

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.

DATA RECORD

T-9142

Field Inspection by (II):	Ross A. Gilmore)Pleiades Island David F. Romero)Squire Island	Date:	30 June 1951 to 24 Sept. 1951
Planetable contouring by (II):	---	Date:	
Completion Surveys by (II):	---	Date:	
Mean High Water Location (III) (State date and method of location):			
(1) Date of Photography-Office interpretation			
(2) 9-6-51; 9-6-51; 9-8-51; 9-10-51; 9-11-51			
Field inspection of Pleiades and Squire Island, only			
Projection and Grids ruled by (IV):	A. Riley	Date:	1-6-55
Projection and Grids checked by (IV):	H. Wolfe	Date:	1-10-55
Control plotted by (III):	G. Amburn	Date:	April 1955
Control checked by (III):	B. Hale	Date:	April 1955
Radial Plot or Stereoscopic Control extension by (III):	S. G. Blankenbaker and R. J. French	Date:	May 1955
	Planimetry	Date:	
Stereoscopic Instrument compilation (III):	---	Date:	
	Contours	Date:	
Manuscript delineated by (III):	R. L. Sugden	Date:	June 1955
Photogrammetric Office Review by (III):	K. N. Maki	Date:	July 1955
Elevations on Manuscript checked by (II) (III):	---	Date:	

Camera (kind or source) (III):

USC&GS Single-lens "W" Camera, 6" focal length; also, U.S. Army Camera

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
54-W-2290 thru 2294	26 July 1954	12:25-12:27	1:10,000 (Ratio)	6.0 ft. above MLLW
<u>U.S. Army M324</u> 38VV thru 40 VV	17 July 1950	Unknown	1:10,000 (Ratio)	Near high tide

Tide (III)

Diurnal

Reference Station: Cordova, Alaska
 Subordinate Station: Chenega I., Dangerous Passage
 Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
1.0	10.0	12.4
* .94	9.2	11.6

Atlantic Marine Center
~~Washington Office~~ Review by (IV): C. H. Bishop

Date: 1-19-71

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III):

Shoreline (More than 200 meters to opposite shore) (III): 10

Shoreline (Less than 200 meters to opposite shore) (III):

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): **3

Recovered: 2

Identified: 2

Number of BMs searched for (II):

Recovered:

Identified:

Number of Recoverable Photo Stations established (III): 3

Number of Temporary Photo Hydro Stations established (III): 19

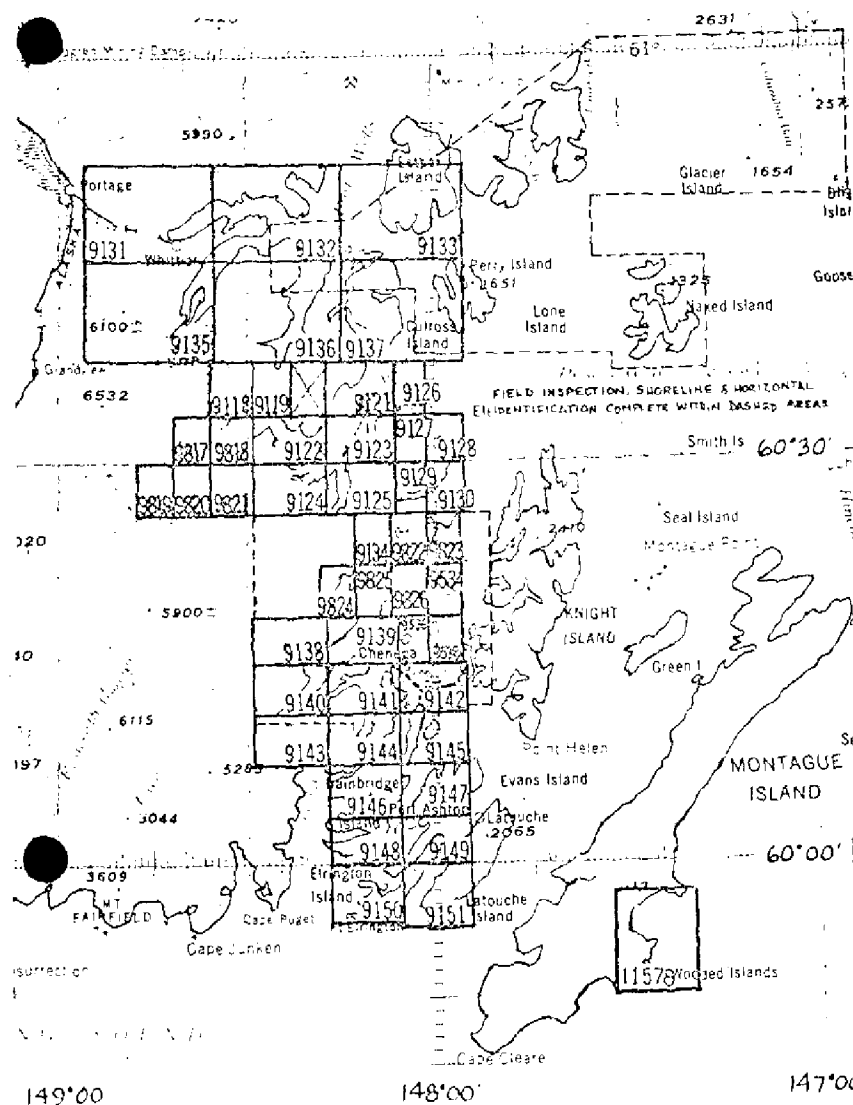
Remarks: *.94 ratio of ranges suggested by Tides and Currents for Sheets
 T-9138 thru T-9145 (except Hogg Bay Sub. Station ratio for
 T-9143)

**C&GS Recovery

T-9142

COMPILATION RECORD	COMPLETION DATE	REMARKS
Shoreline compiled	June 1955	Superseded
Manuscript revised	May 1956	
Final review	Jan. 1971	

Prince William Sound, Alaska



OFFICIAL MILEAGE FOR COST ACCOUNT
LIN. MI. AREA
SHEET NO. SHORELINE MILES

9118	3	13
9119	9	11
9121	11	10
9122	23	7
9123	17	7
9124	7	5
9125	15	6
9126	5	3
9127	6	3
9128	5	3
9129	7	8
9130	14	6
9131	12	95
9132	48	50
9133	36	45
9134	5	11
9135	24	90
9136	26	85
9137	68	48
9138	10	7
9139	13	5
9140	12	8
9141	24	12
9142	10	3
9143	9	4
9144	26	9
9145	19	8
9146	18	8
9147	24	9
9148	25	9
9149	19	7
9150	24	8
9151	15	8
9534	6	4
9536	6	6
9538	4	1
9817	9	10
9818	11	5
9819	3	9
9820	7	5
9821	2	10
9822	9	9
9823	7	4
9824	9	10
9825	11	6
9826	10	8
11578	19	21

TOTALS 702 726

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT T-9142

Several years have elapsed between the compilation and final review of this map. Only two of the compilation photographs were available at the final review stage. The compilation record was added by the final reviewer.

This shoreline manuscript, scale 1:10,000, is one of 43 maps that comprise Project PH-152, which is in the western part of Prince William Sound. T-9142 centers on the Pleiades Islands.

This map was first compiled as a Preliminary Manuscript by radial plot in 1955, using ratio prints of 1:30,000 scale photographs taken in July 1954 by U.S.C. & G.S. and ratio prints of 1:40,000 scale photographs taken by the Air Force in July 1950. Field inspection of Squire Island and Pleiades Islands was done in 1951 on 1:20,000 scale ratio prints of the Air Force photographs.

Field edit was accomplished in the summer of 1955. Enough new triangulation stations and previously established stations were identified on field photographs to make possible the location of the original centers and pass points on a new 1:10,000 scale base by stereoplanigraph bridging. The shoreline on the original manuscript was adjusted to the instrument-located points, and where necessary, re-delineated.

Final review was done at the Atlantic Marine Center in January 1971.

The compilation manuscript was a vinylite sheet 3 minutes 45 seconds in latitude by 11 minutes 15 seconds in longitude.

A cronaflex copy of the final reviewed manuscript and a negative have been forwarded for record and registry.

FIELD INSPECTION REPORT
PRINCE WILLIAM SOUND, ALASKA
Project Ph-39(48); CS-277, 1951 Season
Ship LESTER JONES, George A. Nelson, Commanding

2. Areal field inspection.---In general, the 1951 photogrammetric field surveys of the Ship LESTER JONES for Project Ph-39(48) consisted of all of item (a) and part of item (b) of paragraph 2. of the project instructions. A PROGRESS SKETCH showing the entire area of field inspection is attached to this report. In accordance with letter 71-jgh, dated 4 October 1951 (copy attached), the field data was compiled in the following order:

Area 1.-- Area east of Unakwik Inlet (part of item 2.
(a) of project instructions).

Area 2.-- Remainder of item 2.(a).

Area 3.-- Area in vicinity of Chenega Island.

This arrangement was maintained in compiling control, topographic and peak station data and the various areas are indicated on the attached print of the PROGRESS SKETCH. All data and photographs for Area 1 were transmitted to the Washington Office on 15 November 1951 and the remaining two areas are being submitted as of the date of this report.

Field inspection consisted of (1) recovery and identification on aerial photographs of alongshore triangulation stations; (2) approximate identification of existing interior stations and establishment of a few new interior stations in Area 3; (3) shoreline inspection; and (4) selection and identification of phototopographic and photohydro stations.

In general, the coastline inspected is mountainous with little or no beach except at the heads of bays and larger indentations (usually glacial moraines). In most all cases the shoreline is vertical with trees growing to the immediate cliff edge or high water line. The mountainsides are generally covered with a thick growth of coniferous trees interspersed with patches of moss and grass and berry bushes. Alder is found in the glacial valleys and in patches along some of the side slopes, mostly in Area 3. The rock in the area inspected is a very hard granite, oftentimes polished smooth from glacial action. Numerous extensive crevices and faults were noted during the inspection and are very evident on the photographs.

Photographic coverage consisted of nine-lines photographs taken in 1948 and 1949 at a scale of 1:20,000 and single-lens photographs taken by the Air Force in 1950 at an approximate scale of 1:40,000. Ratio prints of the Air Force photographs were furnished on a scale somewhat larger than 1:20,000. Most of the nine-lens photographs were cut to a folded size of 18" x 24" for convenience in handling in the field. Considerable of the nine-lens photographs had been sent to the field in 1948 and had already been cut up in 12" x 12" squares. It was found that better efficiency could be maintained in the field if these squares were rejoined by scotch tape and folded on the cuts to suit the area

being inspected rather than to use them as individual 12" x 12" squares. Cutting the nine-lens photographs to this small size also creates a difficulty in that shoreline detail is often cut at a disadvantageous place. It was found that by cutting the photographs to a 18" x 24" size and making use of the central portion of the photograph that better results were obtained. All of Areas 1 and 2 with the exception of the Naked Island group and the west side of Perry Island (where single-lens photographs were supplied) were adequately covered by nine-lens photographs except for the main part of Perry Island. Here, the nine-lens coverage was such that extreme wing portions had to be used. This presented a problem in control identification. In general, the definition of the nine-lens photographs was good and were easier to interpret than the single-lens. Here, due to having been enlarged to twice their original scale, the inherent only fair definition of the single-lens photographs was amplified causing considerable trouble and excessive eye strain in making accurate identification. However, the single-lens photographs were more convenient to handle and use in the field than the folded nine-lens photographs. Poor coverage was had in parts of Area 3 due to the excessive width of the flight lines. In some instances there was no overlap in flights in this area.

All shoreline inspection was accomplished using the ship's 20 foot dories fitted with a small "dog house" across the gunwales to protect the photographs and instrumental equipment. However, it was generally necessary to take the photograph out into the daylight for close inspection, thus exposing it to the weather. All notes were made directly on the photographs with a soft lead pencil with leaders to the points pricked or detail noted. No inking was attempted in the field. All control and topographic station data was inked on the photographs in the evening of the same day the field work was accomplished, leaving other data to be inked at a latter date. Consequently, a maximum of field work could be accomplished and certainty assured that control data was complete before advancing to a new area.

Photographs were clipped to a piece of light plywood to facilitate handling and at most times the inspector could stand up in the boat and by using the top of the "dog house" as a plotting table carry on his shoreline inspection quite readily. In general, it is believed that sufficient notes have been made to aid the compiler in interpreting the photographs. No attempt was made to use a stereoscope in the dory. This is an impracticability. All stereoscope work was done aboard ship.

3. Horizontal control.---Sufficient alongshore horizontal control stations were recovered and identified. No new stations were established except in Area 3. Here, 4 peak stations were established by occupying recovered triangulation stations (see Geographic Positions, Form 28 b, submitted 15 November 1951). In a good many instances there is a plethora of identified control stations, especially in the Naked Island group and parts of Area 3. However, due to the fuzziness of detail sometimes on the single-lens photographs and overhanging trees, etc., most stations were recovered with the idea of identification if possible as it would not be

known until arriving at the next station which would be the best to identify. In as much as an attempt was made to recover all along-shore stations anyways, not too much additional time was used in actual identification. It is believed that the plethora of identification was justified in taking all things into consideration.

Station ROCK, 1912 and PERRY ISLAND LIGHT, 1948 were recovered prior to receipt of the single-lens photographs covering this area and inspection and identification had to be made on the outer wing portion of Photo No. 29842. It is possible that better results would have resulted here had better coverage been available at the time of field inspection.

The three control stations identified on single-lens photograph M-383, 28 VV(2) fall outside of the reported 1951 field inspection area. The control data is attached to the photograph and is submitted to assist in controlling the radia plot of Area 3.

A breakdown of recovered and identified horizontal control stations was made for each area and have been listed alphabetically, showing the photograph on which identified and the method of identification. In most cases identification was made by the substitute station method. The above lists are attached to this report. A separate list has been attached showing control stations recovered but not identified, also indicating LOST stations. All alongshore control stations were searched for and have been reported on Form 526, RECOVERY NOTE, TRIANGULATION STATION. All control stations recovered and identified have been shown on the PROGRESS SKETCH for the project.

Peak stations were spot identified as outlined in paragraph 10. of the project instructions. Stations for which a horizontal position is available have been indicated by a large green triangle on the photographs and those without position but having only a single direction and vertical angle have been indicated by a large green circle. All peak stations identified have been listed by areas and are attached to this report. A concerted effort was made to identify as many of these inland stations as practicable depending upon the location of the ship while in an area and also weather conditions at the time. Additional inland stations were determined in Area 3 as called for in paragraph 11. of the project instructions. From necessity, the locations determined depended upon thin intersections. Cuts and vertical angles were taken to additional identified peaks in this area.

4. Vertical control.---Vertical control for contouring by stereoscopic instruments can be obtained from the identified alongshore and inland control stations for which elevations are available. No attempt was made to abstract all stations with elevations as this data is available on the geographic position lists. However, an abstract of new elevations determined was made and is attached to this report. The

vertical angles for stations for which no horizontal position has been determined can be obtained from the ABSTRACT OF ZENITH DISTANCES, Form 29, submitted with other triangulation data on 15 November 1951. Standard methods were used in locating additional peaks and obtaining elevations.

5. Contours and drainage.---

Inapplicable.

6. Woodland cover.---Woodland cover exists in almost the entire area of the project and in most cases is right to the waters' edge. See paragraph 2. of this report for further information regarding this subject.

7. Shoreline and alongshore features.---Shoreline inspection was accomplished in the entire area indicated by cross hatching on the attached PROGRESS SKETCH. The mean high-water line has been indicated on the photographs and no difficulty should be experienced by the compiler in its delineation. In a great many cases the high-water line is at the immediate bluff edge which is also the tree and grass or tundra line. In some cases the approximate low-water line is indicated on the photographs but generally only the limits of shoal or reef areas are shown. All shoreline inspection was done from a 20 foot dory by skirting along the shore and also by actually going ashore at appropriate places where phototopographic stations were to be selected or horizontal control stations were being recovered and identified. It is believed that sufficient notes have been made to give the compiler a good idea of shoreline and alongshore features. However, it should be pointed out that a lot of shoreline information not specifically shown can be gleaned from reading the short descriptions of the photohydro stations inked directly on the face of the photographs. There are a few piers, landings and buildings alongshore in the area field inspected. These have been indicated on the photographs and all buildings considered worth delineating have been shown.

8. Offshore features.---An attempt was made to indicate all offshore high-water rocks and rocks awash on the photographs. In some instances a 3 point sextant fix was taken on offshore rocks which could not be readily identified. These fixes have been shown directly on the photograph. In some cases where a spot of some nature appeared on the photograph but no actual feature was found a note was made (generally by the letters NE) indicating the feature or spot was not evident upon visiting the area. In a few instances notes were made requesting fur-

ther investigation by the hydrographer.

9. Landmarks and aids.---There are two buildings in the area inspected which have been submitted on Form 567 as LANDMARKS. Also, there are 3 fixed aids to navigation which have been submitted on Form 567, two having been previously located by triangulation and the third has been identified as a phototopographic station. Conditions at the time did not warrant locating the latter by triangulation. The above forms 567 accompany this report.

10. Boundaries, monuments and lines.---Generally speaking, this paragraph is inapplicable. However, a General Land Office marker was found on the most northerly extremity of Naked Island and was referenced to triangulation KELSO, 1949 and classified as topographic station USLM S2454 1939 (GLO). Form 524 has been submitted for this station.

11. Other control.---Recoverable topographic stations were established along the shoreline in accordance with paragraph 13. of the project instructions. In many parts of the project no topographic stations had to be established due to the plethora of triangulation stations. Practically all phototopographic stations established were marked stations. A complete listing of all phototopographic stations by areas is attached to this report indicating the photograph upon which the station was identified. Form 524 has been submitted for each station.

Photohydro stations were selected and identified for future hydrographic surveys. A particular effort was made to select stations that could be re-identified and used by the hydrographer. Each station was assigned a temporary field number and indicated on the photograph. From necessity, due to two inspectors working in close proximity to each other, oftentimes using the same photograph another day, or even parts of the same photograph the same day, the numbering system became somewhat jumbled but in no case is there a duplication of numbers on the same photograph. A short description of each photohydro station has been inked directly on the face of the photograph upon which it was pricked. In some instances where the shoreline was too badly shadowed by overhanging trees or bluff, photohydro stations could not be pricked; but generally, very good hydro station coverage is available. As a matter of fact in some cases where the shoreline is considerably broken there is almost a plethora of stations and it will be up to the discretion of the hydrographer which stations to eliminate.

Photohydro stations were selected for the entire area inspected. In the Naked Island group where graphic control had been executed in 1949 and hydrographic stations had been built but no hydrography done, an attempt was made to identify the same stations indicated on the copies of the graphic control surveys furnished. In a good many cases this was possible and they have been indicated on the photographs in the photohydro station descriptions. A number was assigned to the pricked photohydro station in the usual manner and then the graphic control survey station name was shown in parentheses to indicate that it was the same station originally located in 1949. In some cases the original whitewashes were still evident and in others a railroad spike was found driven into a crack in the rock approximately midway of where the whitewash had been.

12. Other interior features.---There are no bridges or known cable areas in the area field inspected, nor are there any airports or landing fields. Air transportation is all done by float planes in this area. The CAA station in the Dutch Group and the village at Chenega are the most outstanding habitations. Most of the other habitations indicated on the photographs are abandoned fox farms except for the one on the south side of Parry Island. Here the buildings are kept up and residence maintained the year around.

The village of Chenega has about 90 residents and has a Bureau of Indian Affairs school and post office (both in the same building). There is a Russian Orthodox Church here and a native store. There is a long narrow pier here which was in bad repair at the time of inspection. There are no marine facilities here but water can be obtained by hose at the end of the pier.

13. Geographic names.---A special report on geographic names has been prepared and was forwarded to the Washington Office on 14 November 1951.

14. Special reports and supplemental data.---In addition to the data contained in this report, the following data obtained during the 1951 season by the Ship LESTER JONES is pertinent to the photogrammetric work accomplished in Prince William Sound.

TITLE

DATE FORWARDED TO
WASHINGTON OFFICE

SEASON'S REPORT

4 January 1952

BEACH REPORTS (3), Prince William Sound

18 August 1951

<u>TITLE</u>	<u>DATE FORWARDED TO WASHINGTON OFFICE</u>
BEACH REPORT (1), Prince William Sound	19 October 1951
COAST PILOT NOTES, Prince William Sound	10 October 1951
GEOGRAPHIC NAMES REPORT, Prince William Sound	14 November 1951
SKETCH to accompany GEOGRAPHIC NAMES REPORT	15 November 1951
TRIANGULATION RECORDS and SKETCH (see tran- smittal letter)	15 November 1951
AREA 1, Fh-39(49), FIELD DATA (see transmittal letter)	15 November 1951
AREAS 2 and 3, Fh-39(48), FIELD DATA (see transmittal letter)	15 January 1952
PROGRESS SKETCH, to accompany SEASON'S REPORT (tracing)	15 January 1952

Ross A. Gilmore
 Ross A. Gilmore
 Commander, C&GS

Approved and Forwarded:

George A. Nelson
 George A. Nelson
 Cmdr., C&GS
 Comdg., Ship LESTER JONES

FE-152
PHOTOGRAPHIC PLOT REPORT
PRINCE WILLIAM SOUND, ALASKA
Scale 1:10,000

21. AREA COVERED:

The radial plot embraces eight sheets in the vicinity of Knight Island Passage, Whale Bay, Chenega Island, and Icy Bay on the west side of Prince William Sound:

T-9138, T-9139, T-9140, T-9141, T-9142, T-9143, T-9144 and T-9145

22. METHOD:

The radial plot was laid on vinylite manuscripts on which the polyconic projection and the UTM grid were ruled. The eight sheets and the adjoining tabs and manuscripts (T-9146 and T-9147) were joined together in one unit using the grids for functioning. The attached sketch shows the layout and photographs used and the distribution and density of horizontal control. Ratio positype paper prints of 3X enlargement from the "W" camera were used on the western part of the plot, and Air Force photography of 4X enlargement (positype) were used on the eastern side where "W" coverage was not available.

The photographs were prepared in the conventional manner choosing shoreline pass points where possible at intervals of about 3 inches and points in the interior at a density of about 6 inches.

Vinylite templet stock was used throughout, and a calibration templet was used to correct for paper distortion errors.

Rays have been drawn on the photographs through those pass points that were used in the radial plot. Certain of the photo-hydro points were pricked as pass point control, and only those that have rays drawn through the point on the photographs were in the main radial plot, and were the points held to in raying in additional detail and photo-hydro points.

The compiler's judgement was used in locating a map position for all the remaining photo-hydros and detail points. A combination of (1) drawing the remaining rays on the templates and relaying them into the plot, (2) graphic manual intersection, and (3) scale check where expedient, were the techniques used to locate the remaining points. All points were located prior to compilation of the shoreline.

Inasmuch as the field identification of control was done on 1:20,000 by the USCGS on Air Force photography, and on 1:40,000 by the 30th Engineers, a reasonable tolerance was expected in holding to control in the final closure and adjustment. The attached sketch and tabulated list of stations with the resultant tolerances show the relative accuracy obtained in the 1:10,000 plot.

In general, better closures were obtained where the sub-point method of recovery was used. Almost without exception, the 30th Engineers picked the home station direct, which allowed the radial plot considerable discretion in the closure and adjustment. Most of the stations held well within an accepted tolerance of not in excess of ± 0.5 mm. of true position. Manuscripts T-9139, T-9141 and T-9144 are perhaps the most accurate in position. T-9138, T-9140, T-9142 and T-9143 are next best in horizontal position, and T-9145 is considered the least accurate of the entire group.

The plot was drilled through the various thicknesses of templates through the manuscripts, and the points were circled in red ink where the position was determined by three or more cuts, green if by two cuts only.

This plot should be verified on the east and west sides upon receipt of further field identified control, and it is advisable to use the stereoplanigraph as the bridging instrument since bad tilts and crab in the flight pattern are noticeably evident.

23. ADEQUACY OF CONTROL:

Horizontal control is adequate for those sheets in the middle of the plot, but more accurately identified control is needed on both the east and west sides, and a better plot is anticipated when the field identified control becomes available. Trouble was encountered in the extreme W and NW sides of the plot on T-9138 in Nassau Fiord and on T-9140 in Icy Bay.

It is suggested that topographic stations 418 (MIND, 1951), and 420 (SAND, 1951) in Nassau Fiord, and either 422 (IDOL, 1951) or 423 (JOWL, 1951) in Icy Bay be located by triangulation methods to give a comparison with the existing preliminary plot positions and thereby justify whether a new radial plot should be laid for smooth sheet plotting. No. 177 (Nassau, 1933) did not hold and the identification is considered to be in error. It is requested that it be re-identified for subsequent work.

24. SUPPLEMENTAL DATA:

T-4308	1:20,000	1927
T-4810	1:20,000	1933
T-4808	1:20,000	1933
T-3093	1:20,000	1910

25. PHOTOGRAPHY:

The W camera coverage is better in general as concerns definition and quality of detail than is the Air Force photography on the east side of sheets T-9142 and T-9145. Tree overhang and displacement, and resulting shadows are factors which hindered the accurate recovery of control alongshore,

and will necessitate compiling much shoreline with the dashed line approximate high water line symbol. Picturing a control point direct is subject to inaccuracies under the circumstances this photography presents, and hence the plot is weak in the areas mentioned in 23 above. The scale was not good on the "W" 3X enlargements, but was surprisingly good on the 4X Air Force enlargements.

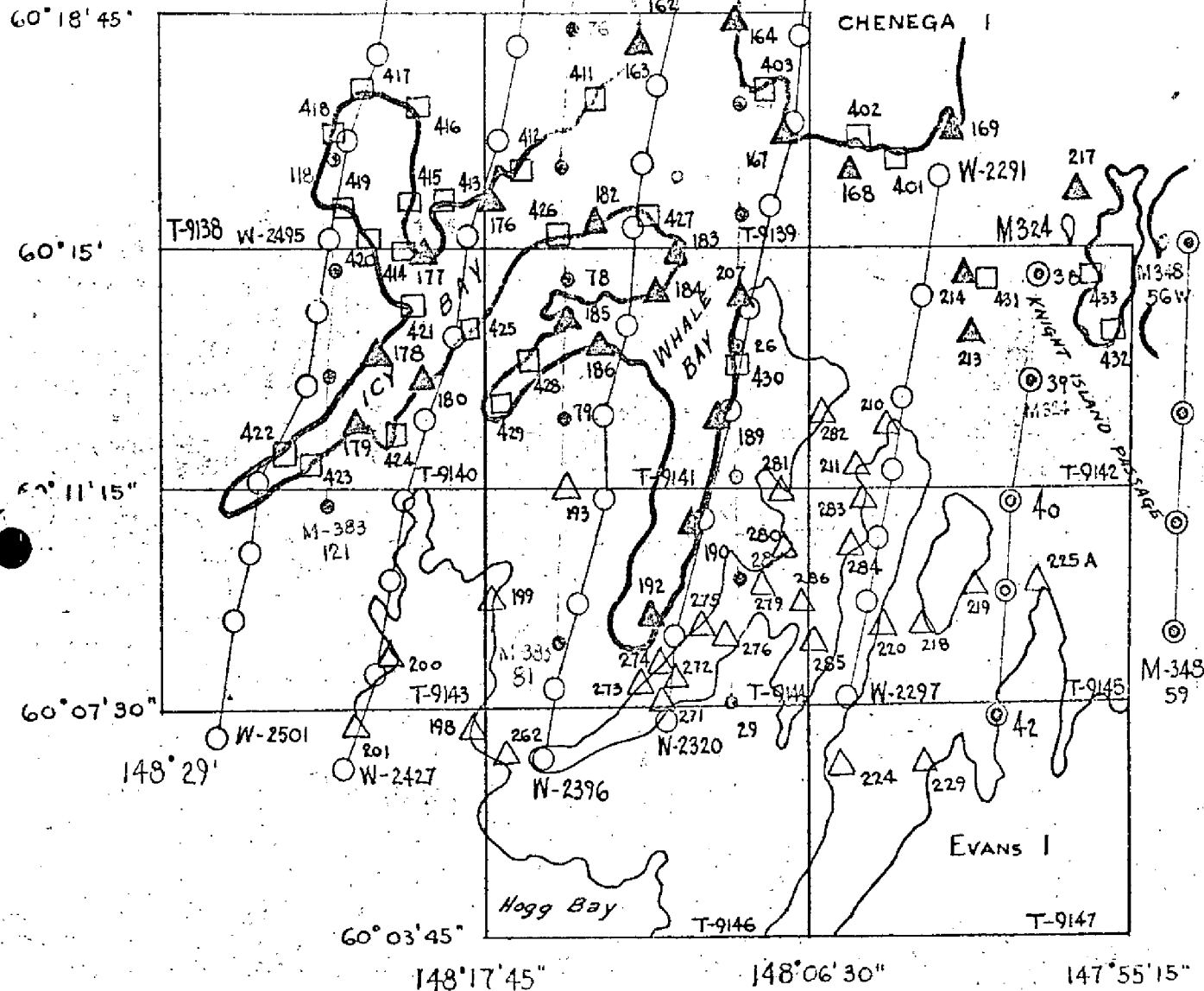
Flight lines should have followed the general NE-SW alignment of these islands in order to afford the radial plot stronger azimuth transfers across the more narrow straits, and thus avoid as many water azimuths as possible.

Approved by:

Respectfully submitted:

S. V Griffith
Chief, Cartographic Branch

Roscoe J. French
Roscoe J. French
Supervisory Cartographer



- ☐ 1954 W Ratio prints (3 x to 1 : 10,000) ☒ Air Force (4x)
- ☒ Field inspection Air Force photos 1 : 20,000
- ☒ Horizontal control field inspected by US CGCS 1: 20,000
- ☐ Horizontal control field inspected by 30 th Egr. 1 : 40,000
- ☐ Topographic stations located by radial plot

Field-inspected shoreline 1 : 20,000 Air Force photography: photo hydr

Ph-152

HORIZONTAL CONTROL STATIONS IN RADIAL PLOT No. 2 (1:10,000)
 T-9138, T-9139, T-9140, T-9141, T-9142, T-9143, T-9144, T-9145

157 Jackal, 1933 Sub. pt. 0.2mm.
 160 Wagon, 1933 0.6mm.
 161 Precip, 1933 Sub. pt. Held
 162 Cener, 1933 0.8mm.
 163 Icy, 1933 Sub. pt. Held
 164 Nigger, 1933 Held
 165 Bend, 1933 Sub. pt. Held
 167 Shale, 1933 Held
 168 Village, 1933 Sub. pt. Held
 169 Chenega, 1907 Sub. pt. Held
 176 Duke, 1933 Held
 177 Nassau, 1933 1.0 mm.
 178 Fiord, 1933 Sub. pt. A 0.2mm.
 179 Thor, 1933 Held
 180 Zeus, 1933 0.2mm.
 183 Baron, 1933 0.2mm.
 184 Belt, 1933 Sub. pt. Held
 185 Olga, 1933 Held
 186 Tina, 1933 Sub. pt. Held
 189 Vega, 1933 Sub. pt. Held
 190 Bebe, 1933 Sub. pt. Held
 192 Kit, 1933 Sub. pt. 1.0mm. (Held to home Station)
 198 Wat, 1927 Held
 199 Goat, 1927 Held
 200 Brid, 1927 Held
 201 Glac, 1927 0.2mm.
 207 Orion, 1933 Sub. pt. 0.2mm.
 210 Bain, 1933 2.4mm.
 211 Tate, 1948 0.3mm.
 213 Pleiades, 1933 Held
 214 Sister Rock, 1907 Held
 215 South, 1907 Held
 217 Squire, 1933 Held
 218 Rot, 1910 0.4mm.
 219 Ship, 1910 0.2mm.
 220 Horn, 1910 0.8mm.
 224 Ded, 1910 Held
 225A Pas, 1910 Held
 229 Guguak, 1910
 262 Hydro, 1948
 271 Plain, 1948 Held
 272 Cross, 1948 0.2mm.

273 Clear, 1948 Held
274 Half, 1948 0.2mm.
275 Pass, 1948 Thin cuts
276 Age, 1948 Held
279 Ruth, 1948 Held
280 Nub, 1948 Sub. pt. Held
281 Low, 1948 Held
282 Sage, 1948 Held
283 Babe, 1948 0.3mm.
284 Dana, 1948 Held
285 Inner, 1948 0.2mm.
286 Sip, 1948 Held

NOTE: All stations that have sub-pts. listed were field identified by USC&GS on 1:20,000 Air Force photography. All others were field identified direct by 30th Engineers on 1:40,000 photographs.

Pa-152

TOPOGRAPHIC STATIONS LOCATED BY RADIAL PLOT No. 2 (1:10,000)
Field identified on 1:20,000 Air Force photography

401 RICH, 1951	421 IBIS, 1951
402 NEAT, 1951	422 IDOL, 1951
403 OATH, 1951	423 JOWL, 1951
411 GARB, 1951	424 TRAM, 1951
412 PULL, 1951	425 DOLT, 1951
413 QUAD, 1951	426 NIFY, 1951
414 YANK, 1951	427 PAWN, 1951
415 WILL, 1951	428 KIVA, 1951
416 LULU, 1951	429 FINI, 1951
417 EDDY, 1951	430 WINE, 1951
418 MIND, 1951	431 PLEIADES I. LT., 1955
419 ULNA, 1951	432 NILE, 1951
420 SAND, 1951	433 ZEST, 1951

PROJECT PH-152
 PHOTOGRAPHIC PLOT REPORT
 (T-9138 through T-9147) Supplement 2
 (Including Portions of T-9148 and T-9149)

21. AREA COVERED

This radial plot covers the area comprising manuscripts T-9142, T-9144 and T-9145, T-9146 and T-9147, T-9148 and T-9149. Sheets T-9148 and T-9149 were included to effect a junction with previous overlapping plots.

22. METHOD

This plot was laid on the original manuscripts with original templates. Control identified in 1955, 1956, and 1957 was added to the manuscripts and photographs to strengthen positions obtained by former radial plots and stereoplanigraph bridging.

The plot was begun on T-9145 where the templates were well-controlled. (see plot sketch) This area was very rigidly fixed and tied into original positions on T-9142 and T-9144. From here the plot was extended on control stations until a satisfactory junction was made with previous work on T-9148 and T-9149. Areas of position change occurred mainly on T-9147 and in local areas on T-9145, T-9146 and T-9149.

23. ADEQUACY OF CONTROL

Control was adequate for most of the plot and most of the stations were held. Another station in the eastern half of T-9147 would have helped as this area is considered weak due to lack of control and photography.

Except as discussed below all stations held (within 0.2 mm):

Stations missed by 0.3 mm are as follows:

(233)	(279)	(273)
EABE 1948,	RAFT 1956,	RUTH 1948,
HARD 1955(Sub Pt),	IKTUA 1955,	ROCK 2 1927(2 Rays)

(249) (238)

OFF 1927, EVANS 1905 (Sub Pt). These differences are not regarded as significant because the original templates had distorted some and both manuscripts and templates were slightly mutilated by use.

- (211) TATE 1948 - Missed 0.4 mm. 2 cuts. Identification one photograph was poor.
- (218) FOT 1910 - Missed 0.6 mm. (Same as former plot) Identification doubtful.
- (220) HORN 1910 - Missed 0.6 mm. (Same as former plot) Identification doubtful.
- (192) KIT 1933 Sub. Sta. - Missed 0.6 mm. - Probably mis-identified. Another small point appears about 0.6 mm to the south would have fit position. Home station was held.
- (258) HOGG 1927 - Missed 0.8 mm. - Station listed as pricked within 1 mm on photos - not very clear.
- EVANS BAY LT 1955 - Missed 0.6 mm. - 2 Rays - Photos not clear, field pricking doubtful.

24. SUPPLEMENTAL DATA

See original report.

25. PHOTOGRAPHY

See original report.

SKETCH AND FORM M-2388-12 CONTROL STATION DATA

A sketch appended. Forms M-2388-12 are filed with respective descriptive reports.

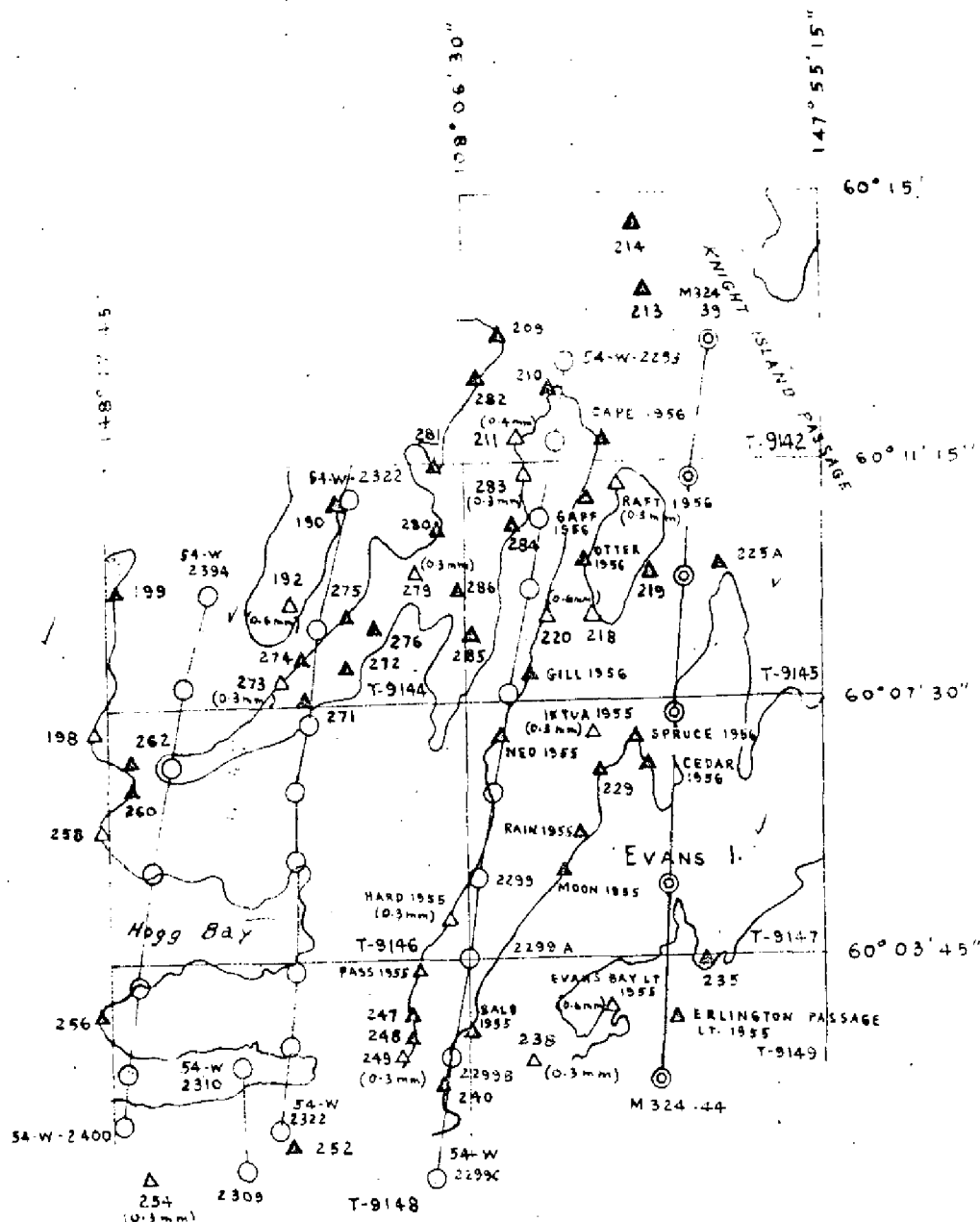
Submitted by
R. L. Sugden

R. L. Sugden

Approved:

Everett H. Ramsey

Everett H. Ramsey
Chief, Graphic Compilation Unit



PHOTOGRAMMETRIC PLOT SKETCH
 PROJ-6152 PRINCE WM. SD.

SCALE 1:10,000

DEC 1957

KEY TO NUMBERED STATIONS

- 209 - PISA 1948
- 260 - FLAT 1948
- 258 - HOGG 1927
- 235 - SKUN 1927
- 238 - EVANS 1905
- 240 - ISLE 1910
- 247 - SAND 1910
- 248 - PED 1910
- 249 - OFF 1910
- 252 - TOP Z 1927
- 254 - ROCK (ROCK 2) 1927
- 256 - SWAN 1927

or names of other numbered
 stations see original report.

▲ STATION HELD

△ STATION NOT HELD

○ U.S.C. & G.S. "W" CAMERA PHOTOGRAPHS

◎ AIR FORCE PHOTOGRAPHS - Series M-324

MAP T- 9142 PROJECT NO. PH-152 SCALE OF MAP 1:10,000 SCALE FACTOR

[illegible]

1 FT. = 3048006 METER	18 March 1955	CHECKED BY: S.G. Blankenbaker	7 April 1955	M. 2388-12
COMPUTED BY: C. O. DeMarr	DATE		DATE	

COMPILATION REPORT T-9142

31. DELINEATION:

Shoreline and detail adjacent to the MHWL was delineated on work sheets of transparent vinylite placed over the photographs most nearly true to manuscript scale covering the desired areas. The shoreline detail was drawn on the work sheets while viewing the stereoscopic model. Graphic methods were then used to adjust the detail into the manuscript, and where scale difference was too great the small vertical projector was used.

Field inspection of shoreline was complete and satisfactory for the PLEIADES ISLANDS and the area around SQUIRE ISLAND shown on the manuscript. There was no field inspection available for application to the remainder of the sheet.

The offshore rock awash (Photo Hydro Station 510), south of SQUIRE ISLAND, cannot be located on the office photographs; therefore an approximate outline is shown.

The shoreline is complete and the photographs are adequate except for a few small areas where the dashed shoreline (approximate MHW) symbol is used because of tree overhang and shadow.

32. CONTROL:

The northeast portion of the manuscript, including the PLEIADES, is adequately controlled and considered to meet standard map accuracy. Horizontal control on the southwest portion was identified on 1:40,000 photographs. This is considered the weakest area and will need further field verification.

The description of topo station NILE, 1951 shows it to be very close to triangulation station SOUTH, 1907 which is considered lost. The radial plot report is filed with descriptive report T-9144.

33. SUPPLEMENTAL DATA:

T-2970	1:20,000	1908
T-3093	1:20,000	1910
T-4810	1:20,000	1933

Due to small scale and lack of coverage the available maps were of no value in compiling the shoreline detail.

34. CONTOURS AND DRAINAGE:

Inapplicable.

- 2 -

35. SHORELINE AND ALONGSHORE DETAIL:

The MHWL and alongshore detail in the northwest portion were determined by stereoscopic interpretation with the aid of field inspection. Application of field notes was facilitated as the office photos were identical with the field photographs, except for scale (Field, 1:20,000; Office, 1:10,000).

The shoreline, reefs, shallow areas and other detail in the southwest portion was exclusively office interpretation from photographs taken at about 1/2 tide.

36. OFFSHORE DETAILS:

No comment.

37. LANDMARKS AND AIDS:

PLEIADES ISLAND LIGHT, 1951 was located during compilation. Forms 524 and 567 have been submitted to Photogrammetry Division files.

38. CONTROL FOR FUTURE SURVEYS:

Three recoverable topographic stations were identified on the 1:20,000 field inspection photos. Positions were scaled and the form 524's forwarded to Photogrammetry Division files.

Nineteen photo-hydros were field inspected on 1:20,000 field inspection photos and are located on the manuscript for future hydrographic surveys. Topo stations and photo-hydro stations are listed under No. 49.

Many more photo-hydros were field inspected than are located on the manuscript. The compiler has shown only those that could be reliably identified by description and stereoscopic study and accurately transferred from the 1:20,000 to the 1:10,000 scale photographs.

39. JUNCTIONS:

Junctions were made with T-9141 to the west and T-9145 to the south, and are in agreement. No manuscripts adjoin on the east or north sides.

40. HORIZONTAL AND VERTICAL ACCURACY:

Vertical accuracy is inapplicable.

Horizontal accuracy covered under No. 32.

41 thru 45. Inapplicable.

46. COMPARISON WITH EXISTING MAPS:

Seward (A-3), Alaska 1:63,360 1952

46 (Continued)

This manuscript supersedes the quadrangle in all shoreline and all alongshore detail, except for the following discrepancies:

Rocks awash south of ^ESQUIRREL ISLAND not located accurately on the manuscript.

Rock awash off west side of FLEIADES ISLAND not located.

Two rocks awash just west of large island in POINT OF ROCK group not located on manuscript.

These rocks were not visible on the office photographs.

47. COMPARISON WITH NAUTICAL CHARTS:

8523 1:40,000 3rd edition 1935 51-7/30

This manuscript supersedes present charted information for shoreline and alongshore features, except for the same discrepancies as noted under Paragraph 46.

Approved by:

Submitted by:

K. N. Maki
K. N. Maki
Supervisory Cartographer

Robert L. Sugden
Robert L. Sugden
Cartographic Photogrammetric Aid

Prince William Sound
Project 6152
May 1956

Supplement to Compilation Report
for T-9141, T-9142, T-9144 through T-9147

New triangulation stations were established and additional previously-established stations were recovered and identified on field photographs during the 1955 field season. These stations are listed as follows:

T-9142

Bain, 1933
Pisa, 1948
Sage, 1948
Tate, 1948, sub. pt.

T-9144

Puth, 1948, sub. pt.
Low, 1948, " "

T-9145

Bear, 1907
Inner, 1948, sub. pt.

T-9146

Hard, 1955, sub. pt.

T-9147

Ektua Rock, 1955
Rain, 1955, sub. pt.
Moon, 1955, sub. pt.
Ned, 1955 (White wash No. 1)

New bases, at scale 1:10,000, corresponding to the original manuscripts were ruled and stereoplanigraph bridging accomplished the location of photo centers and pass points used in the original radial plot. The general shift in datum between the radial-plot-located pass points and the stereo-instrument-located pass points was relatively small (0.5 mm to 1.0 mm). Differences were localized in small areas and were due to the additional horizontal control available to the stereo instrument plotter.

- 2 -

The shoreline on the original subject map manuscripts was readjusted by graphic methods to the instrument-located points where differences in datum occurred. Shoreline, where necessary, was redelineated. Shifts in shoreline due to datum change and corrective redelineation were done in red plastic ink. A considerable amount of indefinite dash-line shoreline was changed to a definite solid-line shoreline. This was done as a fill-in of the dash line in black plastic ink. Any change in position or conformation was shown in red plastic ink.

Submitted:


K. N. Maki

October 19, 1970

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-152 (Alaska)

T-9142

Bainbridge Island

Bainbridge Passage

Bainbridge Point

Gage Island

Knight Island Passage

Long Channel

Pleiades Islands

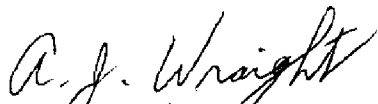
Point Countess

Point of Rocks

Squire Island

Squire Point

Approved by:

A. Joseph Wright
Chief Geographer

Prepared by:

Frank W. Pickett
Cartographic Technician

49. NOTES FOR THE HYDROGRAPHER - T-9142:

Three (3) recoverable topographic stations were located on T-9142:

Pleiades Island Light, 1951
Zest, 1951
Nile, 1951

The following photo-hydro stations were field identified, and are located on the manuscript for the use of the hydrographer:

- 458. Corner point of broken rock bluff with overhanging dead tree.
Small waterfall in cove to south
- 466. White spotted (3) rock
- 500. Top of rock (13)
- 502. Pinnacle rock (14)
- 503. Top of rock (3)
- 508. Highest part of rock (4)
- 511. Semi-detached hump (8)
- 515. Top of hump (4)
- 518. Sloping nose on west side of point (3)
- 521. Bare hump on point (3)
- 525. Top of rock (3)
- 533. Highest part of rock point (4)
- 548. Peak of rock (3)
- 550. Top of more southerly hump (3)
- 553. Top of gravel pile (3)
- 991. Iron spud in top of rock (1)
- 994. End of point (4)
- 996. End of point (3)
- 998. Final hump on rock arm (1)

FORM 1002(T-2) PHOTOGRAMMETRIC OFFICE REVIEW

MAP T- 9142

PROJECT PH-152

No Form 1002(T-2) was available at the time of final review and none is bound with this Descriptive Report.

FIELD EDIT REPORT

Map T-9142

Project PH-152

There was no field edit report available at the time of final review and none is bound with this report.

REVIEW REPORT T-9142

SHORELINE

January 19, 1971

61. GENERAL STATEMENT:

See Summary on page 6 of this Descriptive Report.

An ozalid comparison print (pages 37 through 43), with differences noted in Items 62 through 65 is bound with the original of this report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

No comparison was made west of longitude 148°03', as no survey was furnished for this area. East of this longitude, comparison was made with T-3093, scale 1:20,000 dated 1910; T-2970, scale 1:20,000, dated 1909, and T-4810, scale 1:20,000, dated Sept. - Oct. 1933. All differences between these old surveys and T-9142 are shown in blue on the comparison print.

The shoreline in the Pleiades Islands compared very well in shape. The location of offshore rocks also compared well.

In the vicinity of Squire Island the general trend of the shoreline is the same, but there are large differences in placement in some areas. Several rocks were mapped on the old survey (T-2970) that were not visible on the photographs, and therefore do not appear on T-9142.

The datum of T-3093 is not the same as the datum for T-4810 and T-2907 and could not be reconciled with the datum for T-9142. Therefore, comparison of the northeast corner of Bainbridge Island and Gage Island was made by holding shoreline detail.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A visual comparison was made with U.S.G.S. Quadrangle SEWARD (A-3), ALASKA, scale 1:63,360, dated 1952. Differences are shown in brown on the comparison print.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

A comparison was made with a copy of the boat sheet for H-8388, scale 1:12,500, dated 1956. The origin of the shoreline on the part of H-8388 included in this comparison was T-9142; therefore, no shoreline differences were noted. Rocks not mapped on T-9142, but located by the hydrographer are shown on the comparison print in purple.

There was no comparison with hydrographic surveys east of longitude 148°00'.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with Chart 8524, scale 1:20,000, 7th edition, dated July 11, 1960, revised Jan. 17, 1970. The vertical projector was used. Differences are shown in red on the comparison print. Only the Pleiades Islands and Squire Island were included in the comparison with Chart 8524.

A visual comparison was made with Chart 8523, scale 1:40,000, 4th edition, dated Oct. 10, 1966. Differences between this chart and T-9142 are shown in red on the comparison print.

Offshore rocks at Latitude 60°13.3', Longitude 147°57'00', Latitude 60°13.7', Longitude 148°01.2', and Latitude 60°14.8' Longitude 147°57.8' are shown on the charts and the U.S.G.S. Quadrangle. These are not visible on the compilation photos and do not appear on T-9142.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This survey complies with Job Instructions, Bureau requirements, and the National Standards for Map Accuracy. No accuracy tests were run in the field.

Reviewed by:

Charles H. Bishop

Charles H. Bishop
Cartographer
January 19, 1971

Approved:

Allen L. Powell

Allen L. Powell, RADM, NOAA
Director, Atlantic Marine Center

Approved:

Charles L. ...

Chief, Photogrammetric Branch

Jack E. Luth

Chief, Photogrammetry Division

JOINS SURVEY No T-9141

148° 06'

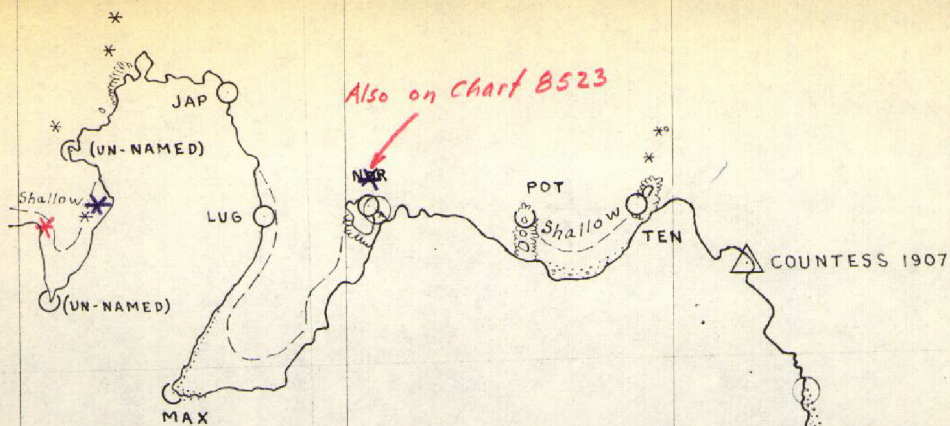
148° 05'

37

13'

60° 13'

Also on chart 8523



POINT COUNTESS

PISA 1948
15

Pond Shallow

Rocks shown with colored
pencil are not visible
on photos.

13' 30"

SAGE 1948

COMPARISON PRINT

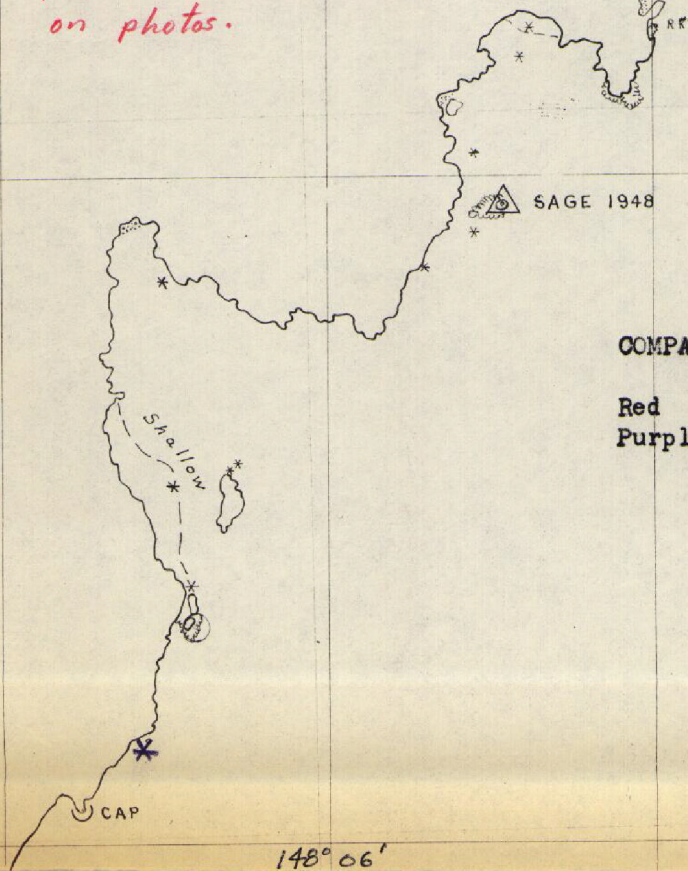
Red = Chart 8523
Purple = H-8388

P A

12'

148° 06'

60° 12'
148° 05'



148° 05'

148° 04'

38

P
A
S
S
A
G
E

COMPARISON PRINT

Red = Chart 8523

Purple = H-8388

Brown = SEWARD (A-3)

BAIN 1933

60° 12' 00"

SEWARD (A-3) shows
islands connected

BAI

Shallow

54 W 22

SAD

*Rocks shown with colored
pencil are not visible
on photos.*

BAINBRIDGE

TATE 1948

Shallow

11' 30"

Snag

60° 11' 15"

148° 05'

148° 04'

B
R
I
D
G
E

148° 03'

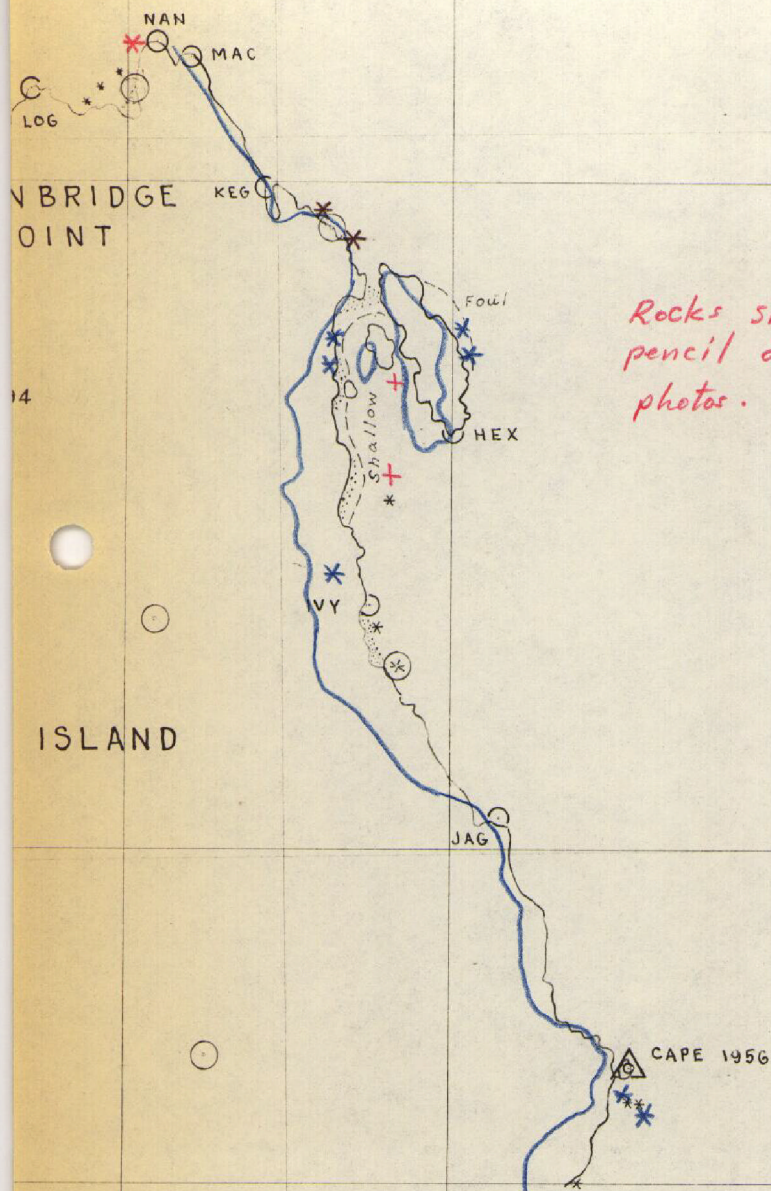
148° 02'

39

COMPARISON PRINT

Red = Chart 8523
Brown = SEWARD (A-3)
Blue = T-3093

*Rocks shown with colored
pencil are not visible on
photos.*



60° 12'

11' 30"

60° 11' 15"

JOINS SURVEY No T-9145

03'

02'

0

148° 01'

148° 00'

40

60° 12'

COMPARISON PRINT

Blue = T-3093

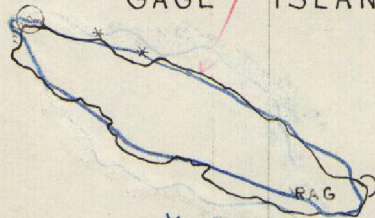
Red = Chart 8523

Purple = H-8388

*From visual comparison, shoreline
on Chart 8523 appears the same
as on T-9142.*

11'30"

GAGE ISLAND



PAN Fowl

60° 11' 15"

JOINS SURVEY No T-9145

148° 01'

H-8388

148° 00'

*Also on
Chart 8523*

148° 01'

148° 00'

41

60° 14' 30"

SISTER ROCK 1907

PLEIADES LIGHT
(PLEIADES ISLAND LIGHT, 1951)(9) Shallow
994

(8) * (10)



COMPARISON PRINT

Blue = T-4810

Red = Chart 8524

Brown = SEWARD (A-3)

YES 996

PLEIADES

ISLANDS

14'

503 AIM (3) 998

Approx. Pos:

Also shown on
Charts 8523 & 8524Not visible
on photos.

PLEIADES 1933

Pin Rk (14)
502

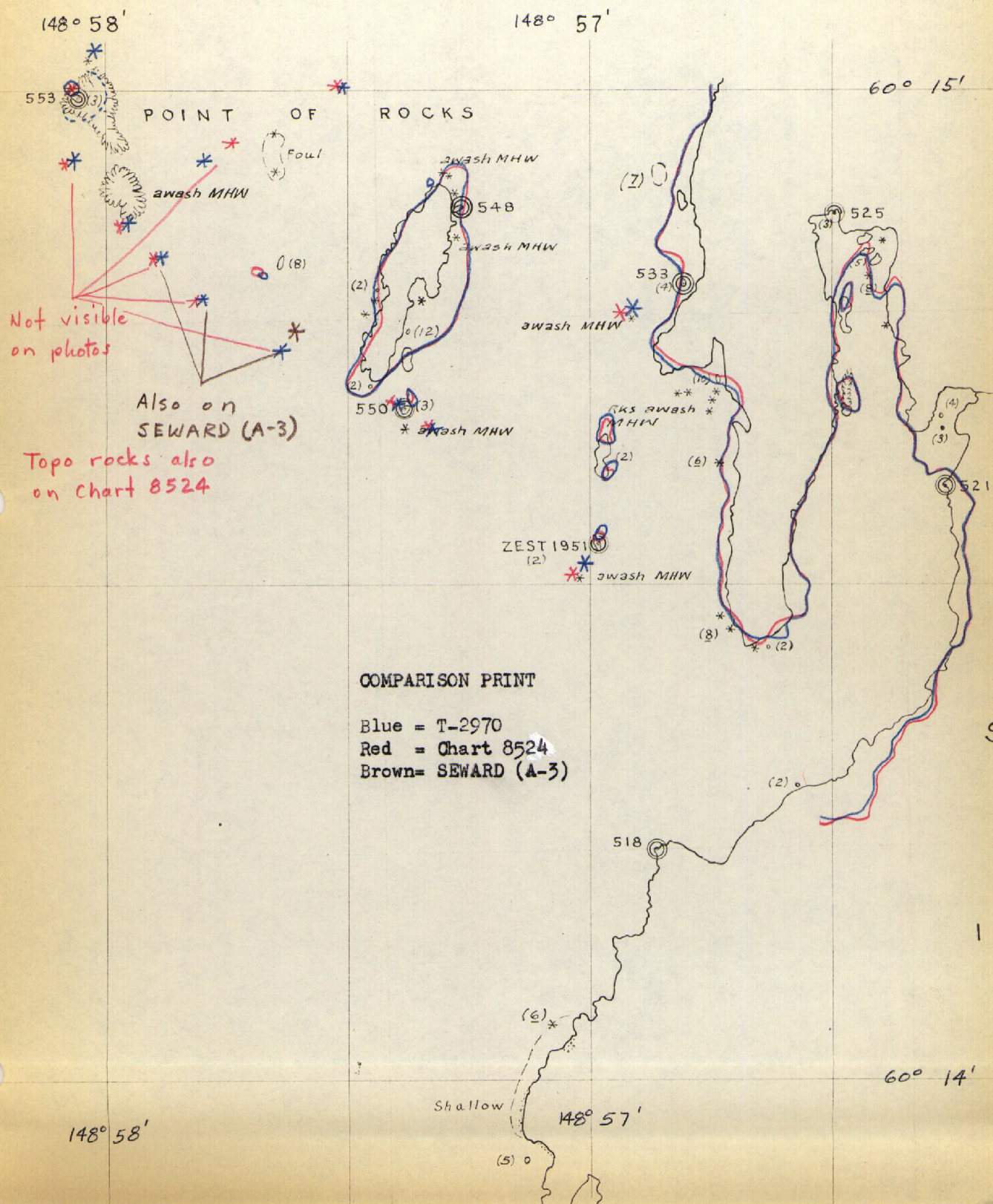
(9) 500 (13)

* BOW
* (10)

60° 13' 30"

148° 01'

148° 00'



147° 57'

147° 56'

43

I S L A N D

COMPARISON PRINT

Blue = T-2970

Red = Chart 8524

Brown = SEWARD (A-3)

60° 14'

hallow

Bare Rk not visible on photos.

515

511

SQUIRE
POINT

NILE, 1951

awash
MHW*Not visible on photos*

C H A N N E L

Bare rocks same on Chart 8524 as on T-2970

13' 30"

NO CONTEMPORARY SURVEY

60° 13'

147° 57'

147° 56'

*Also on SEWARD (A-3)
These rocks not visible on photos*

NAUTICAL CHARTS BRANCH

SURVEY NO. T 9142

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.