

5582

Diag. Cht. Nos. 6300-2 and 6380

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-26 (47) Office No. T-5582

LOCALITY

State Washington

General locality Bellingham

Locality Blaine

194 / 52

CHIEF OF PARTY

C. W. Clark, Chief of Field Party

Hubert A. Paton, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE March 20, 1956

B-1870-1 (1)

CS4 08 10N

agreed to Cht 6399 after review 5-9-60 RND

Cht 6300 Fully Applied, in part thru cht 6380, drg #30
8-12-65. ERT

DATA RECORD

T -5582

Project No. (II): Ph-26(47)

Quadrangle Name (IV):

Field Office (II): Bellingham, Washington

Chief of Party: Charles W. Clark

Photogrammetric Office (III): Baltimore, Md.

Officer-in-Charge: Hubert A. Paton

Instructions dated (II) (III): 31 August 1949

Letter No. 731-aal, dated 24 October 1949

Copy filed in Division of
Photogrammetry (IV)

Office Files

Method of Compilation (III): Air photographic - multiplex

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III): 1:10,000

Scale Factor (III): 1.000

Date received in Washington Office (IV): JUN 23 1959

Date reported to Nautical Chart Branch (IV): JUN 29 1959

Applied to Chart No.

Date:

Date registered (IV): Feb 14 1956

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N. A. 1927

Vertical Datum (III): MSL

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): FARM, 1939

Lat.: 48° 57' 41.523"

Long.: 122° 44' 09.649

Adjusted

~~Unadjusted~~

Plane Coordinates (IV):

State: WASH.

Zone: NORTH

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.

				A. C. RAUCK, JR.						
				A. K. HEYWOOD						

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

DATA RECORD

Field Inspection by (II): John H. Winniford Date: 11/17/49

Planetable contouring by (II): Date:

Completion Surveys by (II): Ray H. Skelton II Date: 1952

Mean High Water Location (III) (State date and method of location):
Same as date of photography - 6-4-49

Projection and Grids ruled by (IV): T.L.J. Date: 9-50

Projection and Grids checked by (IV): A.K. Heywood Date: 9-50

Control plotted by (III): B. A. Dew Date: 9-50

Control checked by (III): A. K. Heywood Date: 9-50

~~REVISIONS~~ Stereoscopic A. C. Rauck, Jr. Date: 9-50
Control extension by (III): A. K. Heywood, Jr. Date: 10-50

Stereoscopic Instrument compilation (III):
Planimetry A.K. Heywood Date: 10-50, 11-50
Contours A.C. Rauck, Jr. Date: 10-50, 11-50.
A.K. Heywood

Manuscript delineated by (III): B. Wilson N/2 Date: 1-51
C. Lipscomb S/2 Date: 2-51

Photogrammetric Office Review by (III): A. C. Rauck, Jr. Date: 2-51

Elevations on Manuscript
checked by (II) (III): A.C. Rauck, Jr. Date: 2-51

Camera (kind or source) (III): U.S.C. & G.S. TYPE "O" 152.37 mm focal length

Number	Date	Time	Scale	Stage of Tide
1150-1158 incl.	6-4-49	1151	1:20,000	5.4' above MLLW
1165-1172 incl.	"	1202	"	5.3' above MLLW
1178-1185 incl.	"	1215	"	no tide water
1200-1207 incl.	"	1230	"	" " "
1390-1392 incl.	"	1445	"	2.3' above MLLW

Tide (III)
FROM PREDICTED TABLES

Reference Station: PORT TOWNSEND, WASH.
Subordinate Station: BLAINE, SEMIAHMOO BAY, GEORGIA STRAIT
Subordinate Station: BELLINGHAM, BELLINGHAM BAY

Ratio of Ranges	Mean Range	Spring Range
	5.1	8.3
1.2	5.9	9.5
1.0	5.2	8.6

Washington Office Review by (IV):

Date:

Final Drafting by (IV): J.H. FRAZIER
J.H. FRAZIER

Date: March 17, 1955
May 25, 1955

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 47
Shoreline (More than 200 meters to opposite shore) (III): 5 statute miles
Shoreline (Less than 200 meters to opposite shore) (III): 5 statute miles
Control Leveling - Miles (II): 70
Number of Triangulation Stations searched for (II): 14 Recovered: 13 Identified: 5
Number of BMs searched for (II): 11 Recovered: 7 Identified: 7
Number of Recoverable Photo Stations established (III): 9
Number of Temporary Photo Hydro Stations established (III): none

Remarks:

Only 9 "Report on Condition of Bench Mark" Cards furnished the compilation office. 7 recovered, 1 not recovered, and 1 destroyed.

BELLINGHAM, WASHINGTON AND VICINITY

Summary To Accompany Topographic Map T-5582

Topographic map T-5582 is one of thirteen similar maps of Project Ph-26(47). It covers portions of Drayton Harbor and Birch Bay, and land area to the eastward-all of which is within Whatcom County, Washington.

Project Ph-26(47) is a multiplex mapping project. Field work in advance of compilation included the establishment of some additional control, the inspection of shoreline and interior features, and the investigation of boundaries, land lines and geographic names.

Map T-5582 was compiled in two parts at a scale of 1:10,000 using single-lens photographs taken in 1949. Contours at 20 foot interval and planimetry was done by multiplex. After compilation the map was field edited. With the addition of hydrographic information, the map will be forwarded to the Geological Survey for publication as a standard 7½ minute topographic quadrangle.

Items registered under T-5582 will include a descriptive report, a cloth-backed lithographic print of the manuscript (N/2 and S/2) at a scale of 1:10,000 and a cloth-backed color print of the published map at a scale of 1:24,000.

FIELD INSPECTION REPORT

This report covers the field inspection of T-5581 and T-5582 and is filed as part of the Descriptive Report for T-5581.

PHOTOGRAMMETRIC PLOT REPORT

This report covers the plot for
T-5581 thru T-5584 and is filed as
part of the Descriptive Report for
T-5581.

MAP T. 5582

PROJECT NO. Ph-26(47)

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ϕ -COORDINATE LONGITUDE OR λ -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)	FORWARD	(BACK)
FARM, 1939	GP LIST 1006	N.A. 1927	48	57	41.523			1282.7	570.8		
			122	44	09.649			196.3	1024.2		
PLAY, 1939	"	"	48	58	38.008			1174.1	679.3		
			122	44	14.276			290.3	929.8		
INTERNATIONAL BOUNDARY MON. 7	IBC Pg. 144	"	49	00	08.17			252.4	1601.1		
			122	42	45.72			929.2	290.2		
"	"	"	49	00	08.22			253.9	1599.6		
			122	41	23.40			475.6	743.9		
"	"	"	49	00	08.26			255.2	1598.3		
			122	40	04.03			81.9	1137.6		
"	"	"	49	00	08.32			257.0	1596.5		
			122	38	45.27			920.1	299.4		
"	"	"	49	00	08.34			257.6	1595.9		
			122	38	19.79			402.2	817.3		
"	"	"	49	00	08.37			258.6	1594.9		E. of quad limits
			122	37	26.23			533.1	686.4		
"	"	"	49	00	08.41			259.8	1593.7		E. of quad limits
			122	36	03.08			62.6	1156.9		
"	Pg. 145	"	49	00	08.13			251.1	1602.4		
			122	44	01.92			39.0	1180.5		
"	Pg. 144	"	49	00	08.13			251.0	1602.4		
			122	44	04.29			87.2	1132.3		
"	"	"	49	00	08.14			251.5	1602.0		
			122	43	45.15			917.7	301.8		

1 FT. = 3048006 METER

COMPUTED BY: A.K. Heywood

DATE 8/50

CHECKED BY: H.P. Eichert

DATE 8/50

M-2385.12

MAP T- 5582

PROJECT NO.:

Ph-26(47)

SCALE OF MAP:

1:10,000

SCALE FACTOR 1.000

[illegible]

1 FT. = .3048006 METERS

11 FT. = .3048006 METER **A. K. Heywood**
COMPUTED BY.

DATE 8/50

DATE 8/50

CHECKED BY: H. P. Eichert

DATE:

8/50

M-2388-12

COMPILATION REPORT, T-5582

FIELD INSPECTION REPORT

Field inspection report for this quadrangle will be found bound under cover of Survey No. T-5581.

PHOTOGRAMMETRIC PLOT REPORT

Photogrammetric plot report will be found incorporated with descriptive report for Survey No. T-5581.

31. DELINEATION

Refer to photogrammetric plot report.

Field inspection was adequate. However, it was noted that in many instances, data was indicated on the edges of photographs, whereas, the central areas of adjacent photographs could have been used instead. See § 52

32. CONTROL

For discussion of horizontal and vertical control, see photogrammetric plot report, above.

33. SUPPLEMENTAL DATA

Land plats -

1 - Township No. 40 North, Range No. 1, East. Willamette Meridian, Wash, dated June 21, 1872.

1 - Township No. 40 North, Range No. 1 West. Willamette Meridian, Wash. dated Feb. 21, 1860.

Township layout

1 - Semiahmoo Township, Twp 40 North, Range 1 West, W.M. and Custer Township, Twp 40 and 41 North, Range 1 East, W.M. Whatcom County, Wash.

For description of how these data were used, refer to 41, Boundaries, of descriptive report T-5584.

A special Report on the Investigation of Boundaries and Land Lines is filed under project data, Div. of Photogrammetry. SWR

34. CONTOURS AND DRAINAGE

Refer to Photogrammetric Plot Report for T-5581 to T-5584.

Some difficulty was encountered in contouring models in strip 1182- 1185 on the south half of this manuscript. See § 53

The models appeared to "dish" after being rigidly controlled vertically. This "dishing" effect made it difficult to tie-in to contours of preceding

34. CONTOURS AND DRAINAGE (continued)

models in the flight.

It is believed that this may be due to film or emulsion shrinkage and it is recommended that these contours be verified during the field edit.

35. SHORELINE AND ALONGSHORE DETAILS

Refer to 7, Shoreline and along^{shore} features, field inspection report for this quadrangle T-5581.

Shoreline inspection was adequate, but in the vicinity of Dakota Creek and California Creek there were discrepancies in shoreline inspection. The delineation of the mean high water line and limits of navigation in these areas are combination of inspection and stereoscopic interpretation.

36. OFFSHORE DETAILS

Refer to 8, Offshore Features, field inspection report for this quadrangle T-5581.

37. LANDMARKS AND AIDS

Refer to 9, Landmarks and aids, field inspection report for quadrangle T-5581 and T-5582.

No new landmarks or aids are on the quadrangle. One aeronautical aid, AIRWAY BN. NO. 10, 1941, is on this quadrangle. Form 567 attached.

38. CONTROL FOR FUTURE SURVEYS

Forms 524 are herewith submitted for nine recoverable topographic stations applicable to this map. Positions of all have been determined by multiplex plotting methods.

38. CONTROL FOR FUTURE SURVEYS (continued)

Contrary to 11, other control, of the field inspection report, the two following stations were not listed.

PORT (B.M. J 6 (48B, U.S.G.S.) 1949
T 40 N, R 1E, SECTION CORNER 5-4-8-9-, 1949

A complete list of the nine recoverable topographic stations will be found under 49, Notes for the Hydrographer.

39. JUNCTIONS

To the north and east are not contemporary surveys.

See § 67

Adequate junctions are made to the south with Survey No. T-5583, and to the west with Survey No. T-5581.

40. HORIZONTAL AND VERTICAL ACCURACY

Refer to 34, Contours and Drainage.

41. BOUNDARIES, MONUMENTS AND LINES

Refer to 10, Boundaries, Monuments and Lines, of field inspection report and 41, Boundaries* of descriptive report T-5584. See § 56, this report

* Discusses method of using plats for compilation. *ENR*

46. COMPARISON WITH EXISTING MAPS

Comparison was made with the U. S. Geological Survey, Blaine quadrangle, scale 1:62,500, edition of 1907, and reprinted 1947.

See § 62 &

The branch of the Great Northern R.R. that is shown on the quadrangle as by-passing Blaine to the east, is no longer in existence. § 63

47. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with chart No. 6399, scale 1:30,000, published March 1941 and last corrected November 20, 1945.

This chart covered only the north half of the manuscript and it was found to be in good agreement. Comparison was also made with chart 6300 scale 1:200,000, published September 1941 (11ed.) See § 65

Items to be Applied to Nautical Charts Immediately:

One aeronautical aid - AIRWAY BEACON NO. 10, 1941. This beacon lies to the east of the city of Blaine on a prominent hill.

Items to be carried forward:

None.

Approved and forwarded

Hubert A. Paton
Hubert A. Paton
Comdr., C&GS
19 June 1951

Respectfully submitted

Albert C. Rauck, Jr.
Albert C. Rauck, Jr.
Cartographic Photo. Aid
56

FIELD EDIT REPORT
Quadrangle T-5582
Project Ph-26(47)

51: Methods:

No new or unique methods were used in the field edit of T-5582. Planimetry and contouring were checked visually by driving the roads with a truck, and by walking where necessary. Considerable contouring was poorly expressed, and had to be further detailed with the plane table.

A legend showing the colors of ink used is shown on Field Edit Sheet No. 1.

Field edit data are presented on Field Edit Sheets numbered 1 through 8, and on photographs 1152, 1153, 1156, 1157, 1166-1171, 1179-1185, 1200-1204, and 1206. Reference to the appropriate photograph is made on the field edit sheet in each case.

52: Adequacy of compilation:

The compilation of planimetric detail and of contouring both was somewhat inadequate. The field inspection and compilation are each faulty. True, the field inspection delineated a freshly plowed field, with one edge ten or twelve feet higher than the other as an intermittent pond, but they also correctly delineated and noted a P.I. on the Bonneville Power Administration transmission line, which was incorrectly compiled. The Bonneville Power Administration will probably be high on the distribution list of this map. Their P.I.'s are very well located, and such an error would immediately be obvious. On such trifles is reputation built.

Many buildings were included as class II buildings on this sheet that should not have been shown. Most of the less important ones have been deleted.

Several public well houses have been added on this and adjoining sheets. This area is underlain with salt water, and it has become difficult to dig a well and obtain sweet water. The Birch Bay area uses water piped in from the Blaine municipal system, and distributed by the Birch Bay Water Association. Similarly we have the Pleasant Valley Water Association and the Aldergrove Water Association. These wells have become rather important in the area.

A number of errors in small drainage have been noted. These are believed to be the result of stereoscopic inspection in the field office, rather than errors in a true field inspection.

(2)

The contouring was very seriously deficient, not alone in vertical accuracy, but also in shape and expression. The area is a compound topography, with ridges of glacial till, largely gravel and boulders. The shoreline has been depressed, and the reentrants typical of glacial shoreline have been filled in with alluvium, forming broad, fairly flat bottoms. The area was near the edge of the Cordilleran continental ice shield.

These ridges of glacial till present a very detailed topography of small tops, small depressions, many or most of them too shallow to catch a contour, and a very detailed drainage pattern with deep reentrants. This is typical of these glacial deposits. This detail has been very well expressed, considering the scale, on the old Geological Survey sheet. The contours as compiled approached the proper order of accuracy in many cases, but simply did not give a correct impression of the country. The bulk of this detail was in the area south and southwest of Custer. Most of the detail shown on the old map was justified, more added, and a very small amount was not verified.

A small amount of shoreline was inspected on this sheet. Several piles were located by plane table intersection in Drayton Harbor. A very approximate (and incomplete) M.L.L.W. was sketched in Drayton Harbor as a matter of interest and information only, and not to be compiled. The bottom is mostly sticky mud, the M.L.L.W. is quite far out, and it is not practicable to run it out with a plane table. The M.L.L.W. shown was sketched.* There are numerous rocks at the head of Drayton Harbor, but they are all above M.L.L.W. The M.L.L.W. sketched in Birch Bay should be somewhat more reliable, but it too was sketched.

** This line has been shown and labeled approximate. SWA*

53: Map accuracy:

The map appears adequate in its horizontal position accuracy. About 3.8 miles of the horizontal accuracy test traverse was run along the south edge of this sheet. This is shown by a red line on the attached plat. Eleven stations of the traverse fall within the sheet limits. There is no mapped detail proximate to one station, but plane table ties to mapped detail, very often building corners, were made in every other case. The average error shown by these ties was 13 feet. 1/50 of an inch at publication scale is 40 feet. The maximum error was 35 feet. This station plotted in its proper position relative to a T-road intersection, but the tie to a nearby house was in error, and the house was obviously poorly plotted. Eliminating this 35 foot error, the maximum error becomes 20 feet, and the average error becomes 10 feet. A separate report* will be submitted on the entire Horizontal accuracy test.

** Copy attached with this report.*

The map was somewhat deficient in vertical accuracy. Altogether about 54 miles of plane table traverse or profile were run over

(3)

this sheet. About ten miles of this profiling was within the area covered by models 1182 to 1185. The compiler noted difficulty in contouring these models, and noted the area for the attention of the field editor. Accordingly the profiling and traverse necessary to develop and correct these areas was ^{not} submitted in the accuracy test summaries. The exception is a portion of the vertical accuracy test suggested by the reviewer, part of which fell within the questioned area. The area in doubt is enclosed with a green hatched line on the plat. All profiles are shown on the plat with full purple lines.

In the 44 remaining miles of traverse, 454 shots were summarized, of which 66, or 14.5 % were in error over a half contour interval, and 3 % were in error over a full interval.

The large amount of profile was necessary to correct obvious error, and to assure a match with other agencies and governments. Errors of over a full interval were noted on both the east and north edges of the quad. A line run where there was no reason to suspect error checked out fairly well. The amount appears justified from the profile results.

It is believed the map will meet National Map Accuracy Standards after the field editor's corrections have been made. See §66

54: Recommendations:

Some way of showing the elevations of Tidal Bench Marks should be devised. Let them be shown in slope type rather than vertical type, or some such arrangement. When a contour is passed on the wrong side of three Tidal Bench Marks because of this omission, it is obvious that such elevations are desirable.

55: Examination of proof copy:

Mr. Ray Doubt of Route 1, Blaine, Washington has agreed to examine a proof copy of the map.

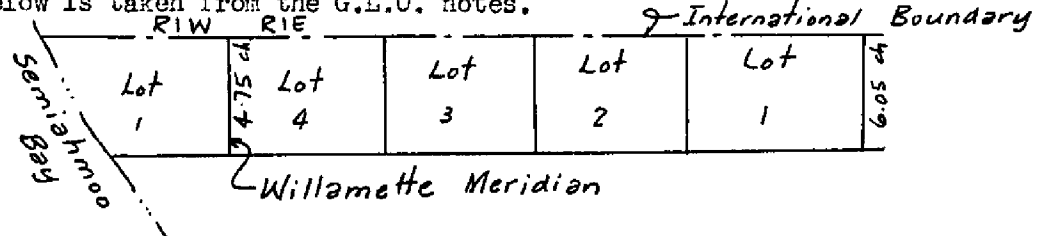
The names ODELL ROAD and PIPE LINE ROAD were added in the Blaine area. These names are posted, and are in common local usage. KULSHAN CEMETERY is posted as such, and HAYNIE CEMETERY is in common local usage. An effort was made to place a community name of HAYNIE, but it does not have a good application.

(4)

56: Boundaries:

Refer to 10 of field inspection report, and to 56 of field edit report for T-5581. The boundaries to be shown on this sheet are the Corporated Limits of Blaine, and the Lake Terrell State Game Range.

A copy of the Blaine Corporation limits was submitted with the field edit report for T-5581. The field editor has plotted the Corporated limits on Field Edit Sheet No. 1. The north edge of the corporation may be questioned. There is a clearly defined culture line on the photographs, but it does not fit available data on lots 1, 2, 3, and 4, T Section 31, T 41 N, R1 E very well. A strip off the south edge of the lots may be dedicated for a nonexistent road, since the area is all platted in city blocks, and the culture line may be the north edge of the right of way for a thus far nonexistent road. The G.L.O. notes show two distances to the line in question, which doesn't fit anything. The sketch below is taken from the G.L.O. notes.



The line shown on the field edit sheet was scaled from a more recent plat of Blaine.

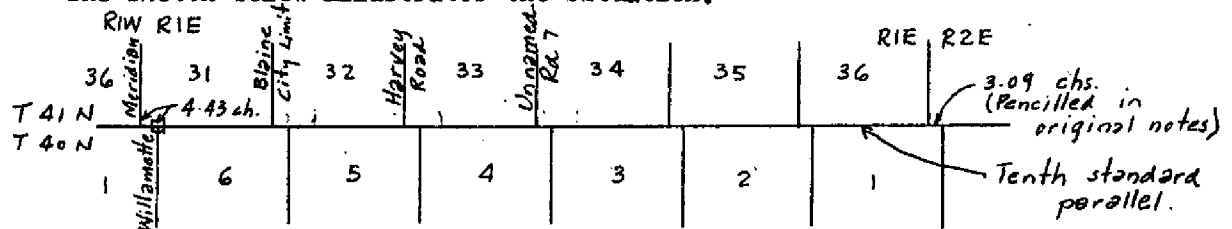
The County Recorder is unaware of any changes or additions to the Blaine Corporation. The field editor can find no support for the arm the field inspector shows extending across Dakota Creek. This includes the Kynell Industries sawmill, which county officials say is in the county, not the city.

The Lake Terrell State Game Range Boundary is drawn on Photo 1165. It was placed on the photo rather than the field edit sheet to take full advantage of the visible culture lines. No description for the entire range is available since the range was acquired as a number of parcels. The purchase is not yet considered complete, and there may still be a couple of additions.

There ^{was} ~~is~~ an error in the land lines along the north edge of the sheet. The compilation shows the north-south section lines running straight across the tenth standard parallel. This is not the case. There are offsets, some of unrecorded amounts, because a forest fire destroyed some of the monuments in the area during the period between surveys of the land north and south of the tenth standard parallel. The offset is 4.43 chains at Blaine, and there is a petilled value of 3.09 chains in the original notes at the other end of the section, which cannot be

(5)

verified. The corner recovered at Blaine by the field inspector is a three-way, not a four-way corner as described. This may be the Willamette Meridian, but there is nonetheless an offset. The sketch below illustrates the situation.



Approved and Forwarded:

Charles W. Clark
 Charles W. Clark
 Lt. Comdr.-USC&GS
 Chief of Party

Respectfully Submitted:

Ray H. Skelton II
 Ray H. Skelton II
 Cartographer

General Delivery
Bellingham, Washington

19 April 1952

To: The Chief, Division of Photogrammetry
U. S. Coast and Geodetic Survey
Dept. of Commerce Bldg.
Washington 25, D. C.

Through: Lt.-Comdr. Charles W. Clark

Subject: Horizontal Accuracy Test, Project Ph-26(47)

Reference: Instructions for field edit, Project Ph-26, a letter
of the Acting Director, file 711 lnh, dated 27 September 1951.

The results of the horizontal accuracy test requested in the instructions indicate that the map is well up to standards in this respect. The attached tabulation of the results is self-explanatory.

The traverse was run from station PEARSON 3 west northwest along the route suggested to a new station CLEM, established about seven meters from station HIGH. Station HIGH could not be reoccupied due to local conditions. The traverse was run by third-order methods, but does not quite give a third-order check; this may be due in part to a weakness in the terminal stations. CLEM was established by a resection giving excellent checks. Field computations accompany this report.

It was necessary to use many building corners as detail ties near the stations. From the large amount of pigment ink used to intensify the buildings on the photographs, it would appear that much of this detail is compiled from the photographs to the manuscript without using the stereoplotter. This undeniably introduces certain inconsistencies into the compilation which would not otherwise be present. In view of these inconsistencies each station was identified by the usual sub-station method. The only true test of the accuracy of the scale extension which was originally in doubt will be the check between the rayed-in or stereophotogrammetrically plotted positions of these substitute stations and their computed positions.

Respectfully submitted,

Ray H. Skelton
Ray H. Skelton II
Cartographer

30 April 1952

Forwarded.

Charles W. Clark
Lt. Comdr. USCGS
Chief of Party

TABULATION OF HORIZONTAL ACCURACY TEST
Quads T-5581, T-5582, T-5583, and T-5584
Project Ph-26(47)

Station	Error (feet) = E *	E ²
SN 1	Not occupied	--
SN 2	15 ft. N.	225
SN 3	15 ft. ENE.	225
SN 4	10 ft. SE.	100
SN 5	15 ft. NNW, 15 ft. NNW **	225
SN 6	15 ft. N.	225
SN 7	5 ft. W.	25
SN 8	25 ft. W.	625
SN 9	30 ft. SW, 8 ft. N. **	361
SN 10	No mapped detail.	--
SN 11	18 ft. E.	324
SN 12	25 ft. W.	625
SN 13	20 ft. W.	400
SN 14	5 ft. E.	25
SN 15	0	0
SN 16	20 ft. E.	400
SN 17	0	0
SN 18	15 ft. E.	225
SN 19	10 ft. SE.	100
SN 20	35 ft. SE.	1225
SN 21	15 ft. NE.	225
SN 22	10 ft. NE.	100
SN 23	No mapped detail.	--
SN 24	10 ft. NW.	100
SN 25	10 ft. NE.	100
SN 26	Not occupied.	--
		$\sum E^2 = 5,860$

$$E_m \text{ (Mean square error)} = \sqrt{\frac{\sum E^2}{n-1}} = \frac{5,860}{21}$$

$$E_m = 10.6 \text{ ft.}$$

$$E_p \text{ (Probable error)} = (0.6745) \times E_m$$

$$E_p = 11.2 \text{ ft.}$$

* E is shown as the distance and direction from the office compiled position of the point to the field established position.

** E² is the square of the arithmetic mean of the two values in the center column.

TABULATION of VERTICAL ACCURACY TESTS
 Quadrangle T-5582
 Project Ph-26(47)

Prof. elev. Feet	Map elev. Feet	Error Feet	Error after 40' shift Feet	Rem.
---------------------	-------------------	---------------	----------------------------------	------

Line GWM 1 (USC&GS) north to Boundary. This line run to prove match with Geological Survey.

66	72	+ 6	+ 6
64	68	+ 4	+ 4
58	64	+ 6	+ 6
63	63	0	0
59	61	+ 2	+ 2
49	57	+ 8	+ 8
58	61	+ 3	+ 3
62	63	+ 1	+ 1
62	64	+ 2	+ 2
69	73	+ 4	+ 4
81	83	+ 2	+ 2
84	84	0	0
80	81	+ 1	+ 1
64	70	+ 6	+ 6
83	77	- 6	- 4
86	86	0	0
87	92	+ 5	+ 4
88	100	+ 12	+ 11
90	108	+ 18	+ 17
90	112	+ 22	+ 20
92	119	+ 27	+ 25
94	124	+ 30	+ 30
101	119	+ 18	+ 18
109	123	+ 14	+ 13
110	133	+ 23	+ 22
120	150	+ 30	+ 28
152	172	+ 20	+ 18
173	201	+ 28	+ 27
184	213	+ 29	+ 27
204	225	+ 21	+ 19
226	252	+ 26	+ 23
260	280	+ 20	+ 16
277	289	+ 12	+ 9
279	295	+ 16	+ 13
280	306	+ 26	+ 23
294	309	+ 15	+ 14
292	305	+ 13	+ 11
299	312	+ 13	+ 11
299	307	+ 8	+ 6
309	318	+ 9	+ 7
312	320	+ 8	+ 6

(3)

Prof. elev. Feet	Map elev. Feet	✓ Error - Feet	✓ Error after - 40' shift Feet	Rem.
392	396	✓ 4	✓ 4	
410	402	✓ 8	- 7	
416	410	- 6	- 6	
415	417	✓ 2	✓ 2	
452	462	✓ 10	✓ 9	
464	464	0	0	
463	463	0	0	
439	449	✓ 10	✓ 10	
472	468	- 3	- 2	
481	481	0	0	
451	475	✓ 24	✓ 24	Omitted Contour
478	475	- 3	- 3	
468	478	✓ 10	✓ 9	
484	481	- 3	- 3	
469	475	✓ 6	✓ 6	
479	474	- 5	- 4	
476	468	- 8	- 7	
415	415	0	0	
446	440	- 6	- 5	
445	436	- 9	- 9	Base Intl. Bdry. Mon. 10
415	415	0	0	
405	394	- 11	- 10	
394	378	- 16	- 14	
379	371	- 8	- 8	Base Intl. Bdry. Mon. 11
370	358	- 12	- 10	
331	318	- 13	- 11	
308	292	- 16	- 14	
230	238	✓ 8	✓ 7	
259	257	- 2	- 1	
266	265	- 1	0	

Along "H" St. Road West of Bar 452 To check shapes in area.

490	482	- 8	- 8	
459	462	✓ 3	✓ 3	
457	462	✓ 5	✓ 5	
458	462	✓ 4	✓ 4	
455	461	✓ 6	✓ 6	
446	452	✓ 6	✓ 6	
483	490	✓ 7	✓ 7	
462	482	✓ 20	✓ 20	Error due to poor expression.
466	470	✓ 4	✓ 4	

From east sheet edge West along Blaine-Lynden Road and South to tie.

107	125	✓ 18	✓ 16	
156	162	✓ 6	✓ 4	
156	166	✓ 10	✓ 9	
91	93	✓ 2	✓ 2	

(2)

Prof. elev. Feet	Map elev. Feet	Error Feet	Error after 40' shift Feet	Rem.
341	342	+1	0	
351	348	-3	0	
365	365	0	0	
378	375	-3	-1	
384	381	-3	-2	
382	381	-1	0	
383	383	0	0	
384	378	-6	-4	
378	376	-2	-1	
364	364	0	0	
363	359	-4	-2	
358	353	-5	-3	
352	342	-10	-9	
330	326	-4	-2	
325	316	-9	-7	
312	304	-8	-6	
304	298	-6	-5	
295	290	-5	-5	
282	282	0	0	
289	282	-7	-6	
285	282	-3	-2	
282	282	0	0	
284	282	-2	+1	
274	276	+2	+1	
275	277	+2	+1	
277	277	0	0	Base Int. Bdry. Mon. 12

West to east along International Bdry. To prove match with Canada.

57	66	+9	+9	
61	71	+10	+10	
64	77	+13	+13	
65	78	+13	+13	
65	75	+10	+10	At Customs Gate
70	80	+10	+9	
92	97	+5	+5	
80	107	+27	+27	Error rises from in-
105	98	-7	-5	complete expression
193	187	-6	-4	of topo in Canada
226	227	+1	0	
236	242	+6	+6	
240	246	-6	-4	
265	267	+2	+1	
283	290	+7	7	Xn X-7 Harvey Rd. (US) and
320	323	+3	+1	Boundary Rd (Canada)
345	348	+3	+3	
351	361	+10	+10	
354	364	+10	+10	
360	358	-2	-2	
402	402	0	0	
408	408	0	0	

(4)

Prof. elev. Feet	Map elev. Feet	✓ Error - Feet	✓ Error after - 40' shift Feet	Rem.
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Spot check at Giles and McGee Road specified by reviewer.

53	53	0	0	
46	48	✓ 2	✓ 2	
51	54	✓ 3	✓ 3	

Tidal 7 North to Blaine for control for resketching.

36	42	✓ 6	✓ 6	
37	42	✓ 5	✓ 5	
44	44	0	0	
44	44	0	0	
19	29	✓ 10	✓ 10	
51	51	0	0	
62	62	0	0	
57	61	✓ 4	✓ 4	
42	44	✓ 2	0	
61	62	✓ 1	✓ 1	
28	34	✓ 6	✓ 5	
24	18	- 6	- 6	
21	19	- 2	- 2	
24	22	- 2	- 2	
31	38	✓ 7	✓ 7	
40	41	✓ 1	✓ 1	
41	43	✓ 2	✓ 2	

Tidal 7 to Tidal 9 Run to correct contour drawn on wrong side of bench marks.

37	44	✓ 7	✓ 7	
32	42	✓ 10	✓ 10	
34	42	✓ 8	✓ 8	
37	52	✓ 15	✓ 15	
33	42	✓ 9	✓ 9	
41	42	✓ 1	✓ 1	
35	42	✓ 7	✓ 7	
33	42	✓ 9	✓ 9	
33	42	✓ 9	✓ 9	
32	42	✓ 10	✓ 10	
34	42	✓ 8	✓ 8	
40	42	✓ 2	✓ 2	

Tidal 7 to Tidal 9 via Blaine-Ferdale and Loomis Trail Roads.

22	31	✓ 9	✓ 9	
14	17	✓ 3	✓ 3	
15	10	- 5	- 5	
16	11	- 5	- 5	
12	11	- 1	- 1	
10	10	0	0	
9	12	✓ 3	✓ 3	

Prof. Elev. Feet	Map Elev. Feet	Error Feet	Error after - 40' shift Feet	Rem.
9	16	+7	+7	
9	20	+11	+11	
9	19	+10	+10	
13	21	+8	+8	
24	26	+2	+2	
23	34	+11	+11	
25	34	+9	+9	
23	39	+16	+16	
31	40	+9	+9	

Tidal 9 Southeast to North edge of model 1182-1183

43	42	-1	-1
49	41	-8	-8
57	53	-4	-4
56	59	+3	+3
58	48	-10	-10

From X-n Grandview and Bell Roads north to California Creek.
Run as test only .

100	95	-5	-5	
97	92	-5	-5	
93	85	-8	-8	
88				Bridge
54	54	0	0	
94	85	-9	-9	
94	90	-4	-4	
88	90	+2	+2	
102	102	0	0	
82	93	+11	+11	
78	84	+6	+6	
74	82	+8	+8	
71	79	+8	+8	
49	53	+4	+4	
7	13	+6	+6	
12	19	+6	+6	
9	19	+10	+10	
44	47	+3	+3	
61	63	+2	+2	
55	59	+4	+4	
54	60	+6	+6	
53	53	0	0	
63	63	0	0	T-rd W
66	66	0	0	
51	59	+8	+8	
45	54	+9	+9	
43	49	+6	+6	T-rd E
37	41	+4	+4	T-rd W
15	19	+4	+4	

Prof. elev. Feet	Map elev. Feet	✓ Error - Feet	✓ Error after - 40' shift Feet	Rem.
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From Kickerville $\frac{1}{2}$ mile north on Kickerville Road, 1 mile West on Grandview Road and 1 mile South on Bell Road. Run to check slope at Bell and Brown Road intersection. Found error in field control.

211	204	- 7	- 7	
196	195	-11	0	
182	177	- 5	-4	
169	164	- 5	- 4	
161	155	- 6	- 6	Rd XX X _n
146	142	- 4	- 4	
121	125	✓ 4	✓ 4	
119	122	✓ 3	✓ 3	
131	131	0	0	
106	107	✓ 1	✓ 1	
102	97	- 5	- 5	
109	99	-10	-10	
114	100	-14	-14	X _n
114	104	-10	-10	Rd XX Control
122	118	- 4	- 4	Error
120	118	- 2	- 2	
116	118	✓ 2	✓ 2	

From California Creek west along Birch Bay-Lynden Road and $\frac{1}{2}$ mile south along Kickerville Road. For control to check top elevation.

32	27	- 5	- 5	
34	30	- 4	- 4	
34	34	0	0	
44	44	0	0	Rd XX 7 X _n
39	41	✓ 2	✓ 2	
30	35	✓ 5	✓ 5	
32	32	0	0	
33	33	0	0	
30	35	✓ 5	✓ 5	
30	32	✓ 2	✓ 2	

East along Grandview Road for $\frac{1}{2}$ mile. Run for control to check shapes.

172	165	- 7	- 7	
160	158	- 2	- 2	
175	166	- 9	- 8	
183	183	0	0	

From Kickerville $\frac{3}{4}$ mile east to tie.

216	210	- 6	- 6	
209	209	0	0	
208	205	- 3	- 3	
220	224	✓ 4	✓ 4	
243	245	✓ 2	✓ 2	

(7)

Prof. elev. Feet	Map elev. Feet	± Error - Feet	± Error after 40' shift Feet	Rem.
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Custer to G W M 1.

39	39	0	0	
38	38	0	0	
36	38	+ 2	+ 2	
37	39	+ 2	+ 2	
42	42	0	0	
43	50	+ 7	+ 7	
37	44	+ 7	+ 7	
37	44	+ 7	+ 7	
40	45	+ 5	+ 5	
43	47	+ 4	+ 4	
47	54	+ 7	+ 7	
56	58	+ 2	+ 2	
76	67	- 9	- 9	

Zell Road east from railroad.

44	50	+ 6	+ 6	
53	58	+ 5	+ 5	

From Custer southeast along railroad to sheet edge thence south to Aldergrove Road, thence West along Aldergrove Road to tie at North Star Road.

39	42	+ 3	+ 3	
39	42	+ 3	+ 3	
45	54	+ 9	+ 9	
46	57	+ 11	+ 11	
54	62	+ 8	+ 8	
58	64	+ 6	+ 6	
48	61	+ 13	+ 13	
59	63	+ 4	+ 4	
56	62	+ 6	+ 6	
42	56	+ 14	+ 14	
59	72	+ 13	+ 13	
76	84	+ 8	+ 6	
78	94	+ 16	+ 14	
90	104	+ 14	+ 12	
99	110	+ 11	+ 9	
97	113	+ 16	+ 14	
88	107	+ 19	+ 17	
117	121	+ 4	+ 3	
120	121	+ 1	0	
122	128	+ 6	+ 4	
150	144	- 6	- 4	
150	148	- 2	- 1	
188	188	0	0	
202	208	+ 6	+ 5	
202	212	+ 10	+ 9	
239	249	+ 10	+ 9	
257	263	+ 6	+ 5	
252	254	+ 2	+ 2	

(8)

Prof. elev. Feet	Map elev. Feet	✓ Error - Feet	✓ Error after - 40' shift Feet	Rem.
256	266	✓10	✓9	
275	285	✓10	✓9	
278	294	✓16	✓14	
293	303	✓10	✓10	
305	318	✓13	✓13	
324	328	✓4	✓4	
341	341	0	0	
354	361	✓7	✓7	
341	343	✓2	✓2	
302	308	✓6	✓6	
282	289	✓7	✓6	
274	284	✓10	✓9	
274	286	✓12	✓11	
284	284	0	0	
274	274	0	0	
285	300	✓15	✓14	
317	326	✓9	✓9	

Olson Road from California Creek south to Brown Road, thence West
to East edge of model 1184-1185.

121	123	✓2	✓1	
137	142	✓5	✓5	Rd X-Y X-n
149	157	✓8	✓8	
171	174	✓3	✓2	
188	197	✓9	✓8	
259	246	-13	-12	
253	257	✓4	✓4	
263	259	-4	-2	
291	285	-6	-4	
215	215	0	0	
326	329	✓3	✓3	Rd X-Y X-n
345	346	✓1	0	
371	371	0	0	
354	361	✓7	✓6	

Grandview Road west from Olson Road to East edge of model 1184-1185.

282	292	✓10	✓8
293	304	✓11	✓10

Fox Road from Blaine-Ferndale Road west to east edge of model 1183-1184

85	95	✓10	✓10
106	115	✓9	✓8
133	134	✓1	0
163	164	✓1	0
205	190	-15	-15

(9)

Prof. elev. Feet	Map elev. Feet	Error Feet	Error after 40' shift Feet	Rem.
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Blaine-Fempale Road from Custer Road southeast to sheet edge.

66	66	0	0
65	65	0	0
79	78	- 1	- 1
76	82	+ 6	+ 6
85	85	0	0
68	78	+10	+10

From Fox Rd. and Grandview Road north-northeast (Suggested by reviewer).

275	286	+11	+ 9
251	253	+ 2	0
212	217	+ 5	+ 1
184	178	- 6	- 5
171	171	0	0
177	177	0	0
177	177	0	0
179	179	0	0
180	178	- 2	- 1
162	178	+16	+14
154	175	+21	+21
157	177	+20	+20
175	178	+ 3	+ 2
183	183	0	0
170	181	+11	+10
165	165	0	0
153	151	- 2	0
115	113	- 2	0
+ 81	79	- 2	0

3.6 miles of combined horizontal-vertical accuracy test, North Star Road and west along Aldergrove Road.

296	296	0	0
306	299	- 7	- 6
307	307	0	0
308	315	+ 7	+ 6
302	317	+15	+12
291	305	+14	+11
275	287	+12	+10
256	274	+18	+14
247	264	+17	+13
240	257	+17	+17
237	257	+20	+20
236	256	+20	+20
235	255	+20	+20
234	253	+19	+19
235	248	+13	+13
241	248	+ 7	+ 7
245	245	0	0
246	246	0	0
245	245	0	0

Prof. Elev. Feet	Map Elev. Feet	✓ Error - Feet	✓ Error after 40' shift Feet	Rem.
245	245	0	0	
245	245	0	0	
245	245	0	0	
246	245	- 1	- 1	
247	245	- 2	- 2	
244	244	0	0	
236	241	✓ 5	✓ 4	
224	221	- 3	- 2	
217	217	0	0	
220	220	0	0	
230	222	- 8	- 8 [?]	
235	225	-10	-10	
236	226	-10	-10	
238	228	-10	-10	
240	230	-10	-10	
243	230	-13	-13	
247	230	-17	-17	
253	230	-23	-23	
247	227	-20	-20	
236	226	-10	-10	
229	224	- 5	- 5	
221	219	- 2	- 1	
215	215	0	0	
211	211	0	0	
207	207	0	0	
204	202	- 2	- 2	
202	202	0	0	
200	196	- 4	- 4	
198	191	- 7	- 6	
194	186	- 8	- 7	
189	183	- 6	- 6	
184	179	- 5	- 5	
179	176	- 3	- 3	
173	171	- 2	- 2	
168	167	- 1	-1	
165	164	- 1	- 1	
161	160	- 1	- 1	
158	156	- 2	- 2	
153	151	- 1	- 1	
149	146	- 3	- 3	
147	142	- 5	- 5	
144	139	- 5	- 5	
141	137	- 4	- 4	
138	135	- 3	- 3	
135	132	- 3	- 3	
133	130	- 3	- 3	
130	128	- 2	- 2	
128	125	- 3	- 3	
126	123	- 3	- 3	
124	121	- 3	- 3	
122	119	- 3	- 3	

(11)

Prof. elev. Feet	Map elev. Feet	/ Error - Feet	/ Error after - 40' shift Feet	Rem.
119	119	0	0	
115	118	/ 3	/ 3	
116	118	/ 2	/ 2	
114	117	/ 3	/ 3	
112	116	/ 4	/ 4	
112	115	/ 3	/ 3	
113	114	/ 1	/ 1	
112	114	/ 2	/ 2	
111	112	/ 1	/ 1	
110	111	/ 1	/ 1	
110	111	/ 1	/ 1	
109	110	/ 1	/ 1	
105	109	/ 4	/ 4	
104	109	/ 5	/ 5	
104	108	/ 4	/ 4	
104	107	/ 3	/ 3	
104	106	/ 2	/ 2	
105	106	/ 1	/ 1	
106	105	- 1	- 1	
107	105	- 2	- 2	
106	104	- 2	- 2	
107	104	- 3	- 3	
106	103	- 3	- 3	
104	102	- 2	- 2	
103	102	- 1	- 1	
102	101	- 1	- 1	
99	101	/ 2	/ 2	
97	100	/ 3	/ 3	
98	99	/ 1	/ 1	
98	99	/ 1	/ 1	
100	99	- 1	- 1	
101	100	- 1	- 1	
102	101	- 1	- 1	

50-PHOTOGRAMMETRIC OFFICE REVIEW

T. 5582

1. Projection and grids ACR 2. Title ACR 3. Manuscript numbers ACR 4. Manuscript size ACR

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ACR 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ACR 7. ~~Photo hydro stations~~ 8. Bench marks ACR
9. Plotting of sextant fixes ACR 10. Photogrammetric plot report ACR 11. Detail points ACR

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ACR 13. Low-water line ACR 14. Rocks, shoals, etc. ACR 15. Bridges ACR 16. Aids to navigation ACR 17. Landmarks ACR 18. Other alongshore physical features ACR 19. Other along-shore cultural features ACR

PHYSICAL FEATURES

20. Water features ACR 21. Natural ground cover ACR 22. ~~Planetable contours~~ 23. Stereoscopic instrument contours ACR 24. Contours in general ACR 25. Spot elevations ACR 26. Other physical features ACR

CULTURAL FEATURES

27. Roads ACR 28. Buildings ACR 29. Railroads ACR 30. Other cultural features ACR

BOUNDARIES

31. Boundary lines ACR 32. Public land lines ACR

MISCELLANEOUS

33. Geographic names ACR 34. Junctions ACR 35. Legibility of the manuscript ACR 36. Discrepancy overlay ACR 37. Descriptive Report ACR 38. Field inspection photographs ACR 39. Forms ACR
40. Albert C. Traub, Jr. Henry J. Eubank
Reviewer Supervisor, Review Section of Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Bernice Wilson Henry J. Eubank
Compiler Supervisor

43. Remarks: see attached remarks

Review Report
Topographic Map T-5582
16 July 1954

62. Comparison with Registered Topographic Surveys:

H-603	1:20,000	1857
T-1872	1:10,000	1888
T-1873	1:10,000	1888
T-6738	1:10,000	1939-40

Many shoreline and cultural changes have occurred since these surveys. Map T-5582 is to supersede these prior surveys for the area encompassed by this map.

63. Comparison with Maps of Other Agencies:

Blaine, Wash. (USGS) 1:62,500 1907, reprint 1947

Many cultural changes have occurred since this map was published. Topography and common features compare closely.

64. Comparison with Contemporary Hydrographic Surveys: None

65. Comparison with Nautical Charts:

6399	1:30,000	1941	corrected to 51 2/12
6300		1941	corrected to 53 8/10

No inadequacies were noted in Chart 6300 which is a small scale chart. There are many differences in interior features and a few differences in shoreline features between map T-5582 and Chart 6399. Changes made to the map manuscript since field edit are shown in red.

66. Adequacy of Results and Future Surveys:

This map meets the National Standards of Map Accuracy and complies with project instructions.

67. Junctions:

A vinylite strip which was a copy of the eastern edge of T-5582 (after the application of field edit) was sent to the USGS for junction study with "Bertrand Creek" quadrangle, edition of 1952. This strip was returned by the USGS with the disposition of most discrepancies between the two surveys indicated. A copy of the published map and this strip were used in correcting the eastern edge of T-5582. This involved very slight shifting or reshaping of some contours and section lines and the deletion of some minor drainage. However the following discrepancies could not be reconciled.

At latitude 48° 54.6' - woodland limit
At latitude 48° 58.3' - woodland limit
At latitude 48° 56.1' - Birch Bay-Lynden Road

This ^{road} was shown as class 4 on T-5582 and verified by the USGS on the strip referred to above. It is shown as a light duty road on the published map.

At latitude 48° 57.0' - "Loomis Trail Road" instead of "Trail Road" is preferred by the Geographic Names Section.

The "Bertrand Creek" quadrangle does not show township names or boundaries whereas they are mapped on T-5582. The contour interval for "Bertrand Creek" is 10 feet; for T-5582, the interval is 20 feet.

Reviewed By:

Everett H. Ramey
Everett H. Ramey

Approved:

L. C. Lande
Chief, Review Branch
Division of Photogrammetry

W. Swanson
Chief, Div. of Photogrammetry

15 March 1976

H. C. Edmonston
Chief, Nautical Chart Branch
Division of Charts GFW

J. B. Ginnell
Chief, Div. of Coastal Surveys

These geographic names added during field edit:

- Birch Bay Circle Grange
- Birch Bay Golf Course
- Blaine Cemetery
- Haynie Community Hall
- Hillsdale Cemetery
- Kulshan Cemetery
- Lake Terrell State Game Range
- Odell Road
- Pacific Highway U.S. Customs and Immigration Building
- Pipe Line Road
- United States - Canada Washington-British Columbia Boundary Line
- Washington 1 (preferably omit here)
- Zion Lutheran Church

Above names appear to be based
on actual field investigation
and are approved, 7-13-57
L. Heck

GEOGRAPHIC NAMES

T-5582

Adelia Street ✓
Aldergrove Road ✓
Anderson Road ✓
Arnie Road ✓

Alder Grove Road

Baeten Road ✓
Barth Road ✓ off map. *etc*
Bay Road ✓
Bayview Road ✓
Behme Road ✓
Birch Bay ✓
Birch Bay (settlement) ✓
Birch Bay-Lynden Road ✓
Birch Bay Road ✓

Blaine ✓
Blaine-Ferndale Road ✓
Blaine-Lynden Road ✓ *Washington IA*
Bodlett Street — or Boblett? (as on whatcom co Hwy Map)
Brown Road ✓

California Creek ✓
Clark Road ✓
Cedar Street ✓
Conner Road ✓
Cottonwood Beach ✓
Creasy Road ✓
Custer ✓
Custer Road ✓
Custer School Road ✓

Dakota Creek ✓
Drayton Harbor ✓
Drayton Road ✓ "E" Street

Fingalson Creek ✓ Enterprise Cem
Fox Road ✓

Giles Road ✓
Grandview Road ✓
Great Northern Railway ✓

"H" Street ✓
"H" Street Road ✓
Hall Road ✓
Ham Road ✓
Harrison Street ✓
Harvey Road ✓
Haynie Road ✓
Hick Road ✓
Hoier Road ✓
Holman Hill ✓

· J.J. Bell Road ✓
· Jackson Road ✓
· Johnson Road ✓

· Kickerville ✓
· Kickerville Road ✓
· Kluken Road ✓

· Lincoln Park ✓
· Loomis Trail Road ✓

· McGeek Road ✓
· Mitchell Street ✓

· North Star Road ✓

· Olson Road ✓

· Pacific Highway ✓
· Percie Road ✓
· Pleasant Valley ✓
· Porter Road ✓
· Powder Plant Road ✓

· Roger Road ✓

· Stafsten Road ✓
· Stein Road ✓
· Sweet Road ✓

· Tellie Road ✓
· Terrell Creek ✓

· US 99 ✓
· US 99 Alt ✓

· Washington 1A ✓
· West Road ✓
· Willamette Meridian ✓
· Willeys Road ✓

· Zell Road ✓

· Whitehorn School ✓

· Semiahmow Township ✓

· Custer " " ✓

· Mountain View " " ✓

Names underlined in red
are approved. 7/19/51.
L. Hery.

Based on names report for
Project: Road names from
1939 Whitcom Co. Hwy. Map.

· Lutheran Free Church of Whitehorn ✓

· Mennonite Brethren Church of Whitehorn ✓

· Pleasant Valley Community Hall ✓

· Haynie Grange ✓

· No. 94 Haynie Public School ✓

· Blaine Reservoir ✓

CONCULCATIONS

NON-DOING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED

THE ECHO OF THE

STRIKE OUTLINE

Bellingham, Washington

December

1961

I recommend that the following objects which ~~have~~ ^{air} been inspected from ~~new~~ ^{air} ~~ward~~ to determine their value as landmarks be charted on ~~the chart~~ ^{the} charts indicated.

The positions given have been checked after listing by

John C. LaJoye

Charles W. Clark

Chief of Party.

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED	
				LATITUDE		LONGITUDE								DATUM
				°	'	D.M. METERS	°							
Washington	Beacon	Seattle-Vancouver Airway Beacon No. 10 (80 feet high) (Elevation of light 434 feet) (Airway Beacon No. 10, 1941)		48 59	1707.0	(146.4)	122 42	(272.3)	N.A.	1927 Triang.	1941		Bellingham	

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column should be given.

49. NOTES FOR THE HYDROGRAPHER

The following is a list of recoverable topographic stations for Survey No. T-5582:

- GABLE(~~GOLF~~, 1949)
- *PORT (B.M. J6 (48B; USGS) 1949
- ✓ KOTA (Tidal B.M. 7, 1935) 1949
- *CULT (Tidal B.M. 8, 1935) 1949
- *T 39 & 40 N, RLE SECTION CORNER 32-33-54, 1949
- *T 39 & 40 N, RLE SECTION CORNER 34-35-3-2, 1949
- *T 39 & 40 N, RLE SECTION CORNER 33-34-4-3, 1949
- *T 40N, RLE SECTION CORNER 5-4-8-9, 1949
- *T 40 & 41N R 1E & R 1W SECTION CORNER 36-31-1-6, 1949

* Interior stations which would be of little value for hydrographic surveying. *s/r*