

T- 13152

T- 13152

Form 804	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Shoreline
Field No. PH-6712	Office No. T-13152
FINAL Field Edited Map Edition 1 *	
LOCALITY	
State	Washington
General locality	Elliott Bay
Locality	Duwamish Waterway

①

FORM C&GS-181a
(12-61)U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T-13152

PROJECT NO. (II):

PH-6712, Elliott Bay, Washington

FIELD OFFICE (III):

CHIEF OF PARTY

PHOTOGRAMMETRIC OFFICE (III):

Rockville, Maryland

OFFICER-IN-CHARGE

V. Ralph Sobieralski

INSTRUCTIONS DATED (II) (III):

No written instructions

METHOD OF COMPILATION (III):

Graphic

MANUSCRIPT SCALE (III):

1:5,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):

DATE RECEIVED IN WASHINGTON OFFICE (IV):

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):

SEPT 1976

GEOGRAPHIC DATUM (III):

N.A. 1927

VERTICAL DATUM (II):

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):

SEATTLE CITY MONUMENT, 1st AVE., SE & MARGINAL WAY, 1956 (Marginal)

LAT.:

47° 32' 53.803"

LONG.:

122° 19' 58.738"☒ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

STATE

ZONE

Y = 203,603.44

X = 1,629,657.19

Washington

North

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.

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FORM C&GS-181b
(12-61)U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T-13152

FIELD INSPECTION BY (III):		DATE:
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): <i>Photography Taken</i> July 26, 1966 Office Interpretation <i>of photography</i> <i>and</i> Sept. 11, 1970		
PROJECTION AND GRIDS RULED BY (IV): A. E. Roundtree		DATE 3/16/67
PROJECTION AND GRIDS CHECKED BY (IV): R. Glaser		DATE 3/20/67
CONTROL PLOTTED BY (III): J. C. Richter		DATE April 1967
CONTROL CHECKED BY (III): H. Lucas		DATE April 1967
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): See Photogrammetric Plot Report for T-12519 (Chart 6442) December 1963 J. T. Gerlach		DATE
STEREOSCOPIC INSTRUMENT COMPILATION (III): Inapplicable	PLANIMETRY	DATE
	CONTOURS	DATE
MANUSCRIPT DELINEATED BY (III): M. Webber J. C. Richter		DATE May 1967
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):		DATE
REMARKS: <i>Field edit by Allan F. Davis Sept. & October 1970</i>		

DESCRIPTIVE REPORT - DATA RECORD

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CAMERA (KIND OR SOURCE) (III):

"S" 6" Focal Length

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
66-S-3188A thru 3191A C. of E. S-7026-48-5 thru S-7026-48-12	7/26/66	12:36	1:15,000	8.8 above MLW
	9-11-70	UNKNOWN	1:12,000	UNKNOWN

TIDE (III)

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: Seattle		7.6	Diurnal 11.3
SUBORDINATE STATION:			
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

J.B. Phillips

DATE:

July 1976

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):

RECOVERED:

IDENTIFIED:

NUMBER OF BM(S) SEARCHED FOR (II):

RECOVERED:

IDENTIFIED

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

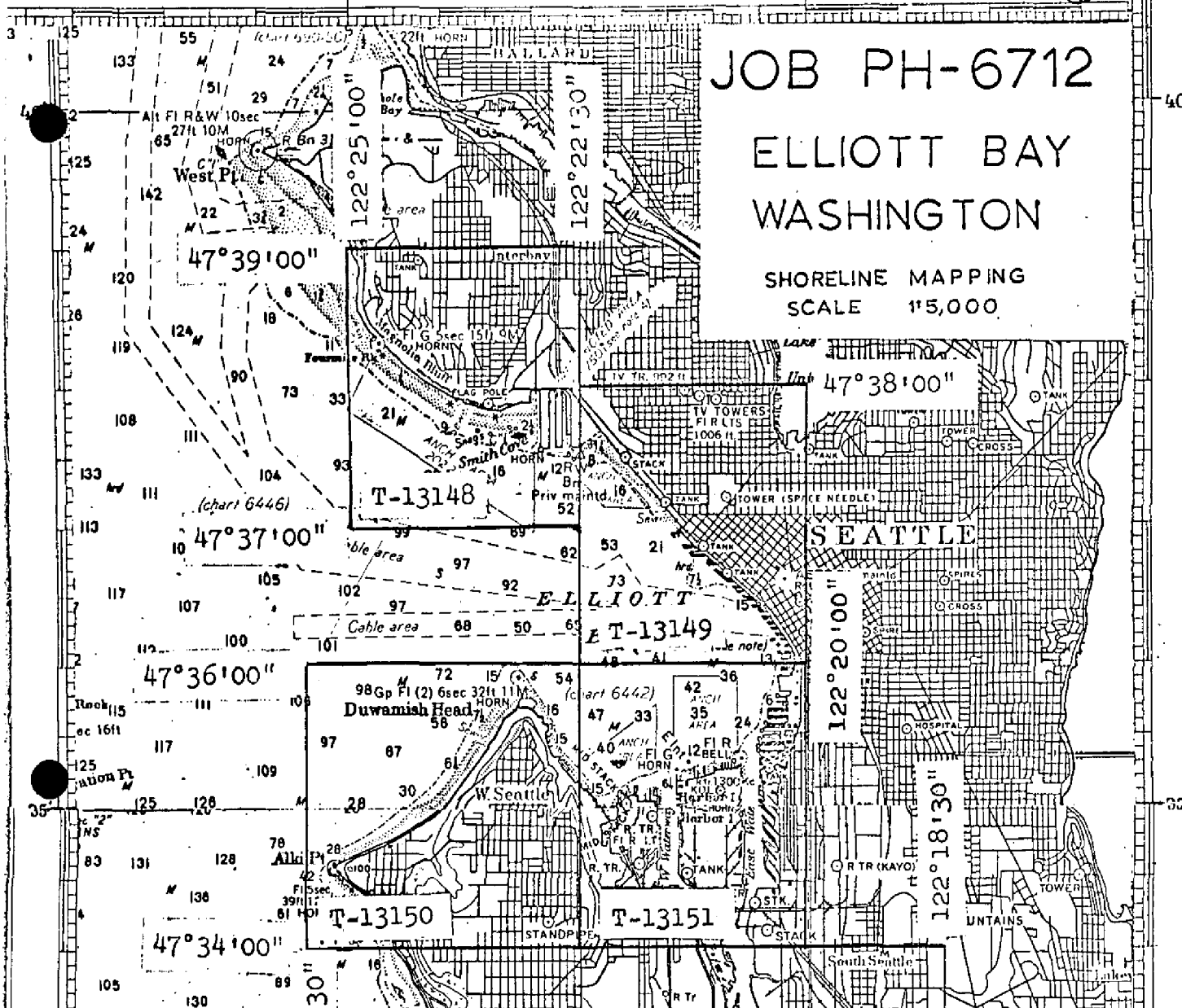
REMARKS:

JOB PH-6712

ELLIOTT BAY

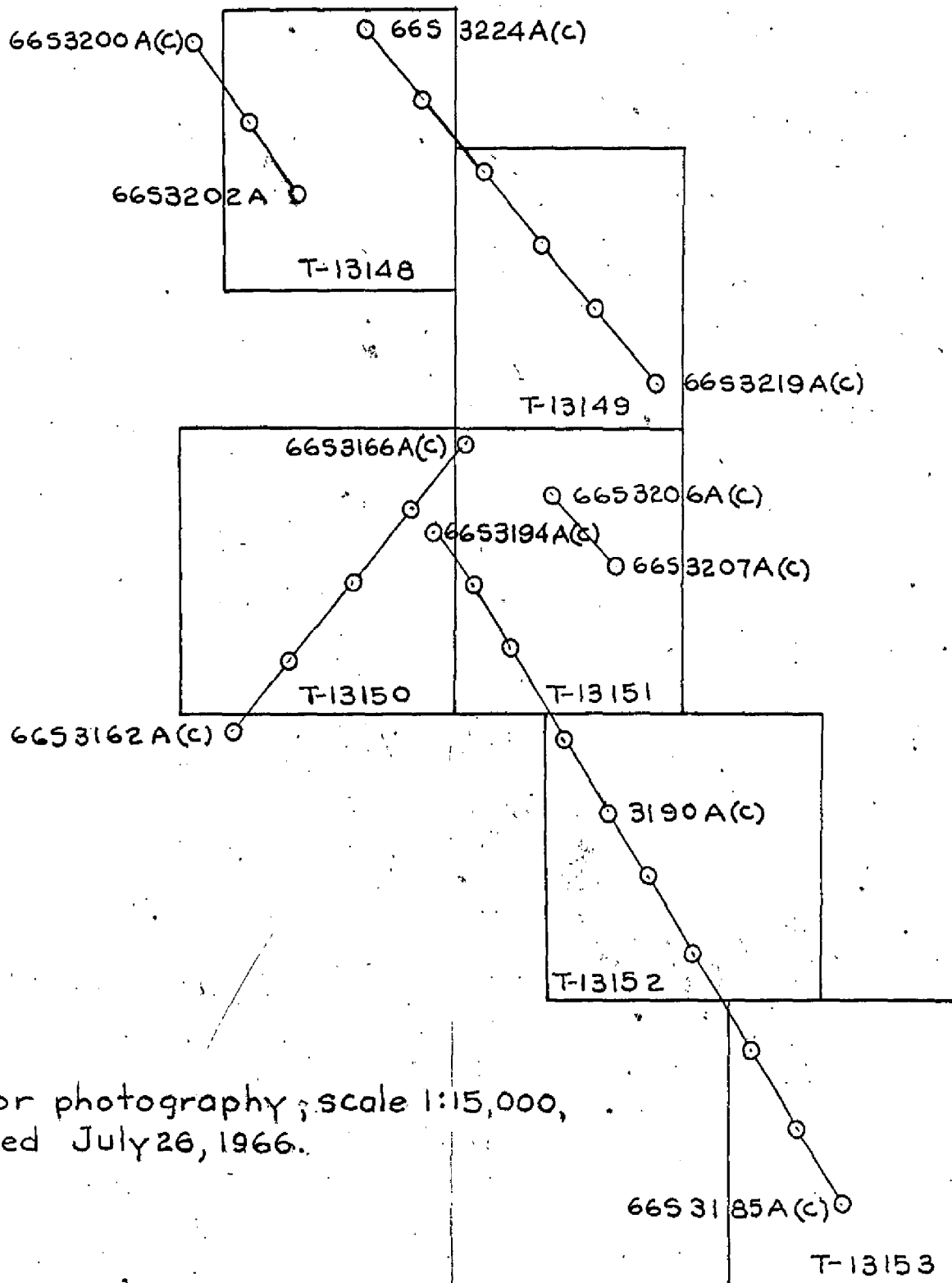
WASHINGTON

SHORELINE MAPPING
SCALE 1"=5,000'



PH-6712
ELLIOTT BAY, WASH
Photo Coverage

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Color photography, scale 1:15,000,
dated July 26, 1966.

T-13152

COMPILATION RECORD	COMPLETION DATE	REMARKS
XXXXXXXXXXXXX XXXXXXXXXXXXX		
* (See below)		
Field edit applied	May 1971	Superseded
Field edit, application revision	July 1975	

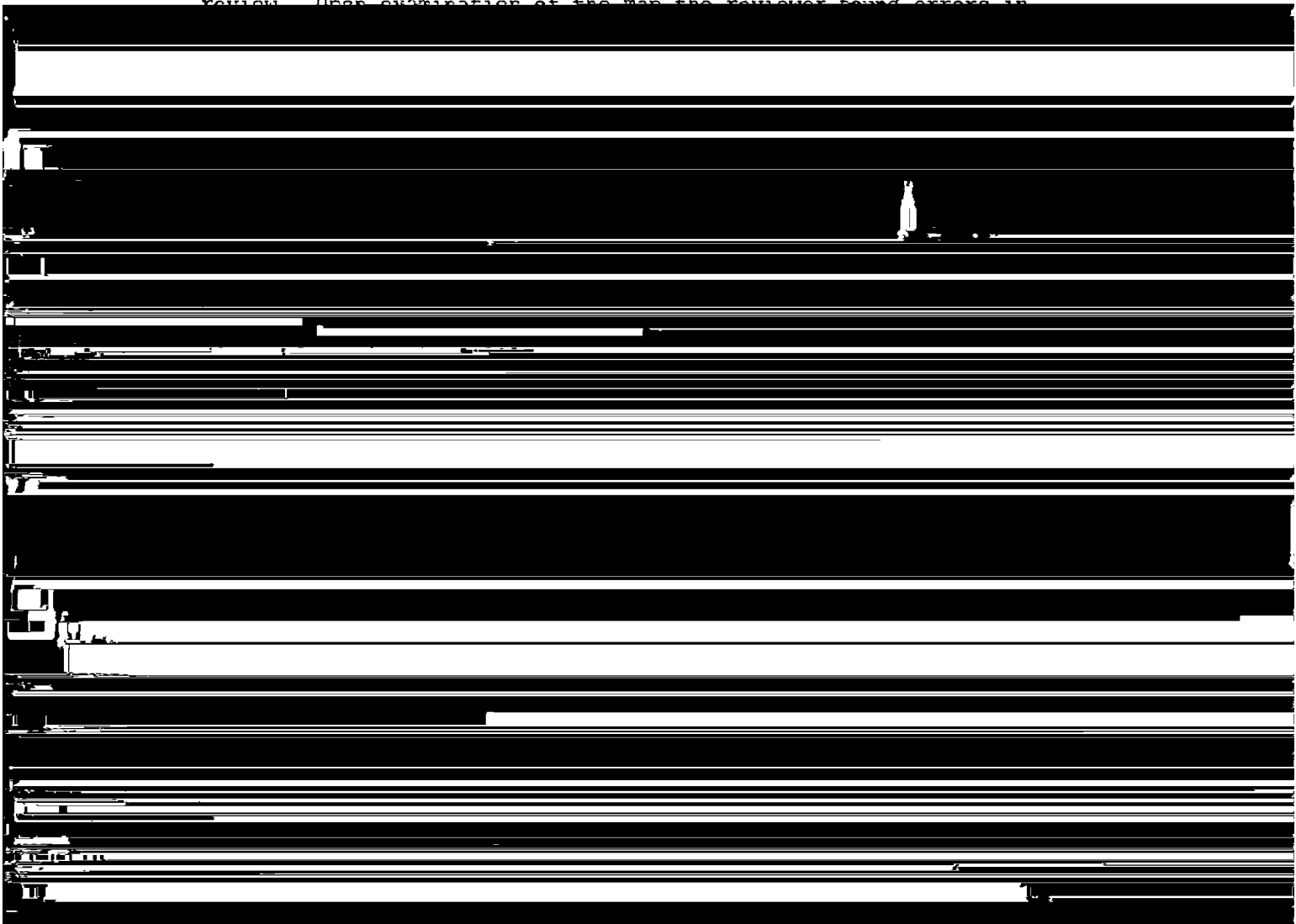
* Field inspection and field edit completed in 1964 for T-12519 (chart 6442) scale 1:10,000. Cronaflex copies enlarged 2X were paneled on this manuscript and details revised with 1966 "S" photography in June 1967.

Summary (PH-6712)

T-1362 is one of six 1:5,000 scale shoreline manuscripts prepared for photo-hydro support. These manuscripts originated with PH-21411 (T-12519) compiled in April 1964 and field edited in September 1964.

PH-21411 was compiled at 1:10,000 scale and served as the base for Nautical Chart 6442. Photographic enlargements on film were made of the chart manuscript and these were applied to base sheets ruled for the new 1:5,000 scale shoreline mapping project. In July 1966, 1:5,000 scale photography was flown over the area for photo revision and for preparation of ratio prints for photo-hydro support. The photography was ratioed and prepared for hydrography in May 1967.

Field edit and hydrographic operations were delayed until September and October 1970. The Corps of Engineers supplied 1:12,000 scale panchromatic photography taken in September 1970 for field edit use. The field editor visually verified the adequacy of the 1970 photography for use in revising map details. Edit information, including the 1970 photography, was applied in 1971. In 1975 the hydrographic survey reviewer requested the photogrammetric map for use in his review. Upon examination of the map the reviewer found errors in



COMPILATION REPORT

T-12152

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This manuscript was compiled from a 2X enlargement of T-12519 (chart 6442) which was compiled in April 1964 and field edited in September 1964.

The enlargement on cronaflex was brought up to date graphically with 1:5,000 scale black and white cronapaque ratios of color photographs taken in July 1966.

After corrections the cronaflex enlargement was paneled on 1:5,000 scale manuscripts and photographs were prepared for hydro support.

Refer to Descriptive Report for Chart Compilation of T-12519 (Chart 6442) of June 1963-September 1964.

31. Compilation

Graphic methods were used.

32. Control

There is an abundance of triangulation stations in the area of this manuscript.

33. Supplemental Data

None

34. Contours and Drainage

None

35. Shoreline and Alongshore Detail

There was no field inspection of the 1966 photography. No low water or shoal lines were visible on the photographs.

36. Offshore Detail

No comment

37. Landmarks and Aids

Four landmarks were abstracted from Form 567 of T-12519 (chart 6442) and listed on Form 567 for this manuscript.

38. Control for Future Surveys

None

39. Junctions

To the north with T-13151 in agreement. To the south with T-13153 in agreement. To the east and west with T-12519 (1:10,000) in agreement.

40. Horizontal and Vertical Accuracy

No comment

41. thru 45.

Inapplicable

46. Comparison with Existing Maps

Comparison was made with USGS quadrangle Seattle, South, 1949 scale 1:24,000.

47. Comparison with Nautical Charts

A comparison was made with nautical chart No. 6442, scale 1:10,000, 2nd edition, August 8, 1966, corrected to January 14, 1967.

Items to be applied to nautical charts immediately:

None

Items to be carried forward:

None

Submitted by:

Approved by:

J. C. Richter

K. N. Maki, Chief
Compilation Section

FIELD EDIT REPORT

MAP T-13152

Duwamish Waterway

Field edit of map T-13152 was accomplished during September and October 1970 from a skiff in conjunction with photogrammetric signal location and from a launch during hydrography.

METHOD

Field photographs and a paper ozalid copy of the manuscripts were employed in the field in place of Field Edit ozalids which were not provided. The mean high water line and shoreline detail were verified by visual comparison of the shore area to field photographs and ozalid manuscripts. Army Corps of Engineers 1:12,000 scale photographs of 19 September 1970 were also used during field edit. Notes have been made in violet ink on the field edit ozalid and cross referenced where necessary to Army Corps of Engineers contact prints S 7026-48-8 and S 7026-48-9. Unless otherwise indicated, all shoreline features are verified correct as interpreted.

ADEQUACY OF COMPILATION

Compilation of the map is inadequate. Considerable changes have been made in the area covered by the map as noted on the field edit ozalid and referenced photographs. Field Inspection of the map is complete.

RECOMMENDATIONS

It is recommended that the map be revised in accordance with the field edit notes and be recompiled from Army Corps of Engineers photographs where significant changes in shoreline detail have occurred. It is recommended that the revised map be accepted as an advance manuscript.

Respectfully submitted,

Allan F. Divis

Allan F. Divis
LTJG, NOAA

Review Report T-13152
Shoreline Survey

July 1976

62. Comparison with Registered Topographic Surveys

T-12519 1:10,000 1964

Refer to memorandum page 12.

63. Comparison with Maps of Other Agencies

Refer to the Compilation Report, item 46.

64. Comparison with Contemporary Hydrographic Surveys

H-9168 1:5,000 1970

During review shoreline revisions were made on the photogrammetric manuscript. The areas are indicated in pencil on the hydrographic smooth sheet. Other features are in agreement with the hydro survey.

65. Comparison with Nautical Charts

6442 1:10,000 1964

Refer to memorandum page 12.

66. Adequacy of Results and Future Surveys

This map meets horizontal accuracy standards but does not meet NOS requirements for use in nautical chart maintenance. Refer to page 12 of this Descriptive Report concerning the inadequacies of this map.

Submitted by:

J.B. Phillips

J. B. Phillips

Approved and Forwarded:

[Signature]
Chief, Photogrammetric Branch

[Signature]
Chief, Coastal Mapping Division



July 22, 1976

TO: Chief, Coastal Mapping Division
FROM: Quality Control Group *J. E. Lindholm*
SUBJECT: Recommendation for New Mapping, Elliott Bay, Washington

1. Purpose

The memo outlines the need for a 2nd Edition of Map T-12519 (PH-21411), date 1964.

2. Background

Map T-12519, scale 1:10,000, was used in hydro operations in 1970. Six 1:5,000 scale maps (PH-6712), 2X enlargements of portions of the 1:10,000 scale map, were processed and revised with 1966 photography. Hydrography and field edit were accomplished in 1970.

3. Map Adequacy

For reasons outlined under Section 4, the six 1:5,000 scale maps do not meet NOS requirements for use in nautical chart maintenance. The inadequacies do not affect the basic hydrographic (sounding) information on the contemporary hydrographic surveys.

4. Map Deficiencies

Field edit of the 1:5,000 scale maps was inadequate. The field edit reports state that after revision of the maps with 1970 Corps of Engineers photography in areas indicated (by the editor) they will meet requirements. Many changes in shoreline and alongshore features, apparent on the photographs, were not noted by the editor. The photographs were generally poor for interpreting details and little clarification was done by the editor. Although the hydrographer corrected some photogrammetric survey details on the boat sheet, many changes, apparent on the 1970 photographs, were accepted as compiled from the 1966 photographs.



5. Disposition of 1:5,000 Scale Maps

The six 1:5,000 scale maps were reviewed in July 1976. Changes required in hydrographic survey details were called to the attention of the hydro survey reviewer by notes on the reviewed smooth sheet or by memo, as applicable.

6. Recommended Procedures

New bridging and basic compilation is recommended for the 2nd map edition.

*NOTE: The last complete investigation of landmarks
and aids was done in 1963*

513

48. Geographic Names List

Duwamish Waterway
Georgetown

NO NEED TO WING IT FOR CHARTS

1967

October 11, 1963

Fred Natella, Capt. C&GS

Chief of Party.

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. Revisions shall show both the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
DESCRIPTIVE REPORT
CONTROL RECORD

MAP T-13152 PROJECT NO. PH-6712 SCALE OF MAP 1:5,000 SCALE FACTOR 1.0

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
						FORWARD	(BACK)	FORWARD	(BACK)
DIAMOND CEMENT CO. STACK 1929	pg.55		210,991.25					12,8620.5	
			1,627,855.86					99,2342.9	
SILO 1933	pg.48		211,210.91					12,8754.4	
			1,627,688.01					99,2240.6	
NO. 5 (USE) 1934	pg.49		208,544.80					12,7129.2	
			1,627,201.59					99,1944.0	
FORD STACK 1934	pg.55		207,016.80					12,6197.7	
			1,628,264.52					99,2592.0	
SIGNAL 1933	pg.49		209,232.33					12,7548.3	
			1,624,232.55					99,0134.1	
SEATTLE S. BASE 1917	pg.126		204,379.11					12,4589.8	
			1,629,386.95					99,3276.2	
SEATTLE CITY MONUMENT 1st Ave SE & MARGINAL WAY 1956	pg.332		203,603.44					12,4116.9	
			1,629,657.19					99,3441.0	
PERMANENTE 1954	pg.398		203,304.56					12,3934.7	
			1,629,088.59					99,3094.4	
HIGH POWER TOWER W. SIDE OF DUWAMISH RIVER 1934	pg.55		201,572.48					12,2878.8	
			1,629,078.17					99,3088.0	
HIGH POWER TOWER E. SIDE OF DUWAMISH RIVER	pg.55		201,978.07					12,3126.1	
			1,629,446.55					99,3312.6	
NO. 12 (USE) 1934	pg.49		201,874.09					12,3062.7	
			1,628,786.92					99,2910.5	
A (BOEING) 1953	pg.331		200,642.03					12,2311.6	
			1,635,073.20					99,6742.6	

1 FT. = 3048006 METER

COMPUTED BY: J. Richter

DATE April 1967

CHECKED BY: H. Lucas

DATE April 1967

COMM-DC-57843

SCALE FACTOR 1.0

1 FT. - 3048006 METER	DATE April 1967	CHECKED BY H. Lucas	DATE April 1967	COMM-DC-57843
CONSTRUCTION J. Richter				

TIDE COMPUTATION

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

PROJECT NO. PH6712 T-13152

Time and date of exposure 12:36 7/26/66

Reference station

Seattle, Washington

Mean range

Date of field inspection

Subordinate station

Ratio of ranges

	Time	
	h.	m.
High tide	13:24	
Low tide	6:12	
Duration of rise or fall	7:12	

	Height	Height x Ratio of ranges
	feet	
High tide	9.0	
Low tide	0.2	
Range of tide	8.8	

	Time	
	h.	m.
High tide at Ref. Sta.	13:24	
Time difference		0
Corrected time at Subordinate station	13:24	

	Time	
	h.	m.
Low tide at Ref. Sta.	6:12	
Time difference		0
Corrected time at Subordinate station	6:12	

	h.	m.	feet	feet	Photo. No.
Time H. T. or L. T.	13:24		9.0	Feature bares	66-S-3188A
Required time	12:36		0.2	Stage of tide above MLW	
Interval	:48		8.8	Feature above MLW	
Time H. T. or L. T.				Feature bares	
Required time				Stage of tide above MLW	
Interval				Feature above MLW	
Time H. T. or L. T.				Feature bares	
Required time				Stage of tide above MLW	
Interval				Feature above MLW	
Time H. T. or L. T.				Feature bares	
Required time				Stage of tide above MLW	
Interval				Feature above MLW	
Time H. T. or L. T.				Feature bares	
Required time				Stage of tide above MLW	
Interval				Feature above MLW	
Time H. T. or L. T.				Feature bares	
Required time				Stage of tide above MLW	
Interval				Feature above MLW	

COMM-DC-57848

Computed by J. C. Richter

Checked by

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