T-13153

T-13153

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. PH-6712 Office No. T-13153

FINAL Field Edited Map Edition 1 *

LOCALITY

State Washington

General locality Elliott Bay

Locality Duwamish Waterway

19 66-1970

CHIEF OF PARTY

V. Ralph Sobieralski

Div. of Photogrammetry, Wash., D.C.

LIBRARY & ARCHIVES

DATE

USCOMM-DC 5087

* Refer to Memo, page 12.

(1)

FORM C&GS-181a
(12-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T - 13153

PROJECT NO. (II):

PH-6712, Elliott Bay, Washington

FIELD OFFICE (II):	CHIEF OF PARTY
PHOTOGRAMMETRIC OFFICE (III):	**OFFICER-IN-CHARGE**
Rockville, Maryland	V. Ralph Sobieralski

INSTRUCTIONS DATED (II) (III):

No written instructions.

METHOD OF COMPILATION (III):

Graphic and B-8 stereoplotter

MANUSCRIPT SCALE (III):	STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):
1:5,000	1:15,000
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):	VERTICAL DATUM (III):
N.A. 1927	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):

PARK 1917

LAT.:	LONG.:	
47° 31' 26.178"	122° 19' 22.903"	[X] ADJUSTED [ ] UNADJUSTED

PLANE COORDINATES (IV):		STATE	ZONE
Y = 194,188.66	X = 1,637,016.77	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.

USCOMM-DC 16276A-P61

FORM C&GS-181b
(12-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T-13153

FIELD INSPECTION BY (III):	DATE:

MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):

Photography taken
July 26, 1966 - Office Interpretation of photography
and
Sept. 11-1970

PROJECTION AND GRIDS RULED BY (IV):	DATE
A. E. Roundtree	3/16/67
PROJECTION AND GRIDS CHECKED BY (IV):	**DATE**
R. Glaser	3/20/67
CONTROL PLOTTED BY (III):	**DATE**
J. C. Richter	April 1967
CONTROL CHECKED BY (III):	**DATE**
H. Lucas	April 1967
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): See Photogrammetric Plot Report for T-12519 (Chart 6442) Dec. 1963 J. T. Gerlach	**DATE**

STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY	DATE
	CONTOURS	DATE
MANUSCRIPT DELINEATED BY (III):		**DATE**
J. C. Richter		
SCRIBING BY (III):		**DATE**
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):		**DATE**

REMARKS:

Field edit by Allan F. Divis Sept. & Oct. 1970

FORM C&GS-181c
(12-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T-13153

CAMERA (KIND OR SOURCE) (III):

"S" 6" Focal Length

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
66-S-3185A thru 3187A	7/26/66	12:36	1:15,000	8.8 above MLW
C. & E. S-7026-48-5 thru S-7026-48-12	9-11-70	unknown	1:12,000	unknown

TIDE (III)

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

WASHINGTON OFFICE REVIEW BY (IV): J. B. Phillips — DATE: July 1976

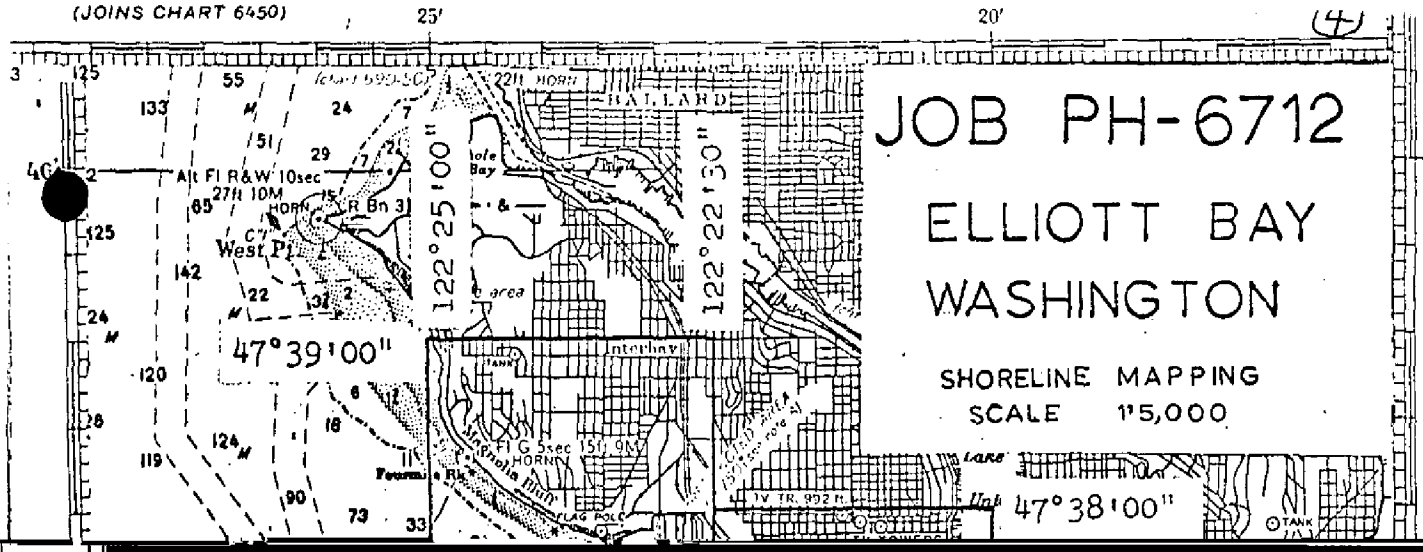
PROOF EDIT BY (IV): — DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):	RECOVERED:	IDENTIFIED:
NUMBER OF BM(S) SEARCHED FOR (II):	RECOVERED:	IDENTIFIED

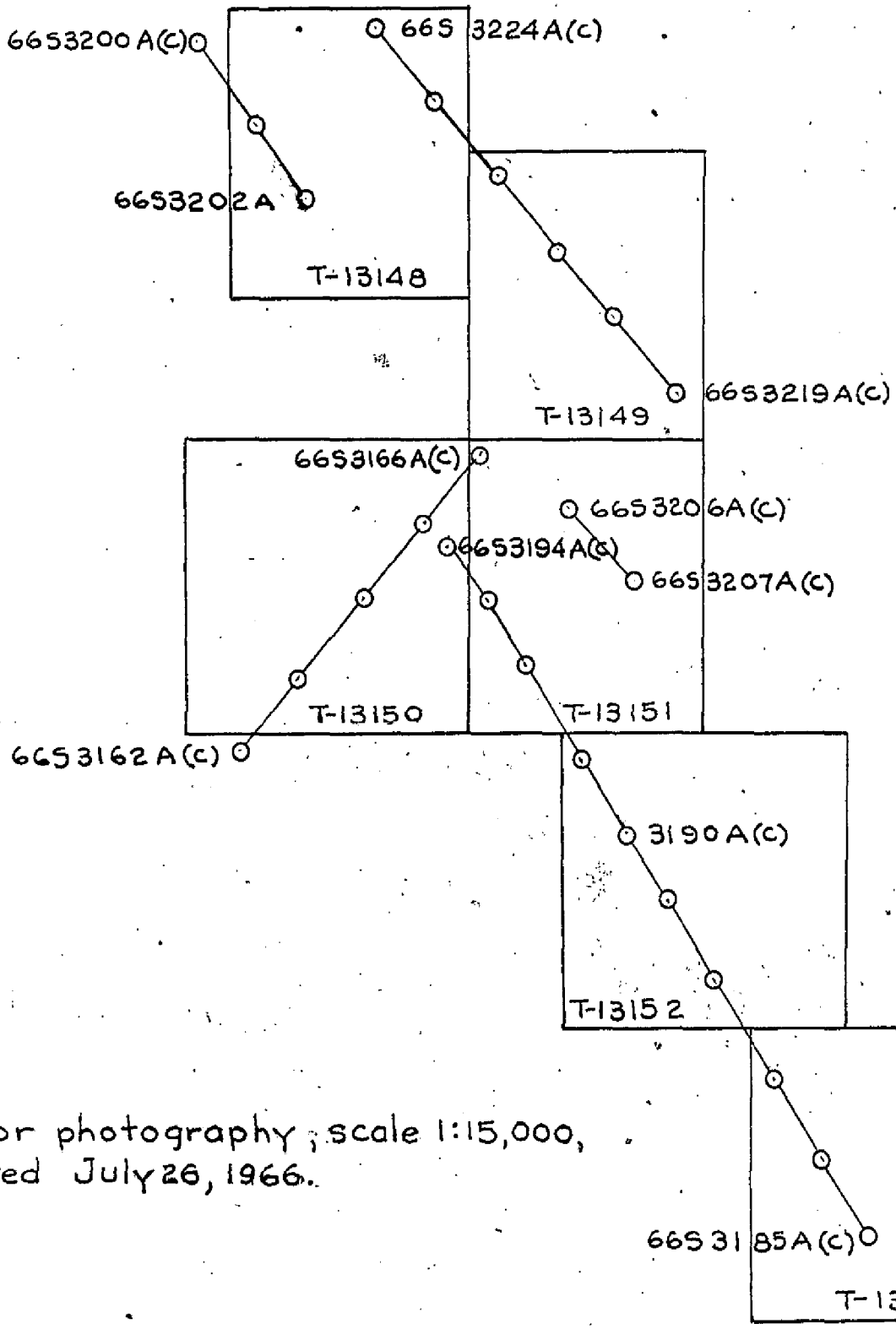
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

REMARKS:


(JOINS CHART 6450)
25'
20'
(4)
JOB PH-6712
ELLIOTT BAY
WASHINGTON
SHORELINE MAPPING
SCALE 1"5,000
122°25'00"
122°22'30"
47°39'00"
47°38'00"
BALLARD
West Pt
Interbay
Alt Fl R&W 10sec
Fl G 5sec 15ft 9M
HORN
40

PH-6712
ELLIOTT BAY, WASH
Photo Coverage



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

T-13153

COMPILATION RECORD	COMPLETION DATE	REMARKS
XXXXXXXXXXXXXXX XXXXXXXXXXXX		
* (See below)		
Field edit applied	May 1971	Superseded
Field edit application revised	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 detail revised with 1966 "S" photography in June 1967.

Summary (PH-6712)

T-13153 is one of six 1:5,000 scale shoreline manuscripts prepared for photo-hydro support. These manuscripts orginated 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 the application of field edit. The errors resulted, primarily, from the poor quality of the photographic prints used in 1971. Better quality prints were obtained and applied in 1975.

Refer to page 12 of this Descriptive Report concerning the disposition of inadequacies in PH-6712 maps.

Final review was accomplished at the Rockville Office in July 1976.

Several changes were made to the shoreline and foreshore features during review. No attempt was made to update the buildings or other cultural features.

A stable base positive copy of the map and a Descriptive Report will be registered in the NOS Archives.

COMPILATION REPORT
T-13153

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.

One model of 1:15,000 color transparency was compiled on B-8 stereoplotter to complete the Duwamish Waterway on the south half of the manuscript.

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

31. Delineation

Graphic methods were used on the north half and the B-8 stereoplotter on the south half.

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 photography.

36. Offshore Detail

No comment

37. Landmarks and Aids

One landmark was 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-13152 in agreement. No contemporary survey to the east, west or south.

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 Jan. 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

(10)

FIELD EDIT REPORT

MAP T-13153

Duwamish Waterway

Field edit of map T-13153 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 scale 1:12,000 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 matte ratio prints 66 S 3185A and 66S3186A. Unless otherwise indicated all shoreline features are

[redacted]

ADEQUACY OF COMPILATION

Compilation of the map is good. Minor 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

Review Report T-13153
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

Comparison was made with the final reviewed hydrographic survey and they are in agreement.

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

Approved and Forwarded:

Chief, Photogrammetric Branch

Chief, Coastal Mapping Division

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

(12)

C3421

July 22, 1976

TO: Chief, Coastal Mapping Division

FROM: Quality Control Group

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

Form 5
(10-15-

U.S. DEPART T OF COMMERCE
COAST AND GEODETIC SURVEY

T-13153

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE REVISED~~
~~TO BE DELETED~~
} STRIKE OUT TWO

Seattle, Washington July 19 67

I recommend that the following objects which have ~~have not~~ been inspected from seaward to determine their value as landmarks be charted on ~~deleted from~~ the charts indicated.

The positions given have been checked after listing by Robert B. Melby October 11, 1963

Fred Natella, Capt. C&GS
Chief of Party.

STATE Washington

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.M. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
TANK	Seattle, Kenworth Truck Corp.			22.303		08.859	N.A.			x			6442
elevated	Water Tank, 1955 HT=144(150)		47 31	688.8	122 18	185.3	1927	Triang	10/4/63	x			6449 6460

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.

(15)

* TABULATE SECONDS AND METERS

USCOMM-DC 27126

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT

COAST AND GEODETIC SURVEY
CONTROL RECORD

MAP T- 13153 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 DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
ABOE 1957	pg.399		197,858.04						12,0614.5	
			1,634,996.69						99,6695.9	
C (BOEING) 1953	pg.337		196,823.89						11,9984.1	
			1,637,163.73						99,8017.0	
D (BOEING) 1953	pg.337		195,531.46						11,9196.2	
			1,637,871.42						99,8448.4	
E (BOEING) 1953	pg.337		193,999.64						11,8262.4	
			1,638,710.09						99,8959.6	
F (BOEING) 1953	pg.331		191,727.78						11,6877.5	
			1,639,953.97						99,9717.9	
NO. 20 (WSF) 1957	pg.399		191,141.67						11,6520.2	
			1,641,123.34						100,0430.8	
NO. 21 (WSF) 1957	pg.399		188,632.33						11,4990.5	
			1,642,540.52						100,~~0698.9~~ 1274.7	
M8 1957	pg.399		186,443.79						11,3656.4	
			1,641,563.19						100,0698.9	
PARK 1917	pg.126		194,678.91						11,8676.5	
			1,631,943.24						99,4834.6	
SEATTLE, KENWORTH TRUCK CORP., WATER TANK 1955	pg.336		194,188.66						11,8377.6	
			1,637,016.77						99,7927.4	
SEATTLE, BOEING FIELD ROTATING AERO BN. 1963			199,332.17						12,1513.1	
			1,637,027.26						99,7933.8	

(6)

1 FT. = .3048006 METER

COMPUTED BY: J. C. Richter DATE April 1967 CHECKED BY: DATE

COMM-DC-57843

FORM (4-27-54)

TIDE COMPUTATION

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

PROJECT NO. Ph- 6712 T-13153

Time and date of exposure 12:16 7/26/66 Reference station Seattle Mean range 7.6 Diurnal

Date of field inspection _____ Subordinate station _____ Ratio of ranges 11.3

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

	Height feet	Height x Ratio of ranges
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	:00
Corrected time at Subordinate station	13:24

	Time h. m.
Low tide at Ref. Sta.	6:12
Time difference	:00
Corrected time at Subordinate station	6:12

	h. m.		feet		feet	Photo. No.
Time H. T. or L. T.	13:24	Ht. H. T. or L. T.	9.0	Feature bares		
Required time	12:16	Tabular correction	0.6	Stage of tide above MLW		
Interval	1:08	Stage of tide above MLW	8.4	Feature above MLW		66-S-3157A
Time H. T. or L. T.	13:24	Ht. H. T. or L. T.	9.0	Feature bares		
Required time	12:21	Tabular correction	0.4	Stage of tide above MLW		
Interval	1:03	Stage of tide above MLW	8.6	Feature above MLW		66-S-3164A
Time H. T. or L. T.	13:24	Ht. H. T. or L. T.	9.0	Feature bares		
Required time	12:36	Tabular correction	0.2	Stage of tide above MLW		
Interval	0:48	Stage of tide above MLW	8.8	Feature above MLW		66-S-3188A
Time H. T. or L. T.	13:24	Ht. H. T. or L. T.	9.0	Feature bares		
Required time	12:44	Tabular correction	0.2	Stage of tide above MLW		
Interval	:40	Stage of tide above MLW	8.8	Feature above MLW		66-S-3199A
Time H. T. or L. T.	13:24	Ht. H. T. or L. T.	9.0	Feature bares		
Required time	12:46	Tabular correction	0.2	Stage of tide above MLW		
Interval	:38	Stage of tide above MLW	8.8	Feature above MLW		66-S-3208A
Time H. T. or L. T.	13:24	Ht. H. T. or L. T.	9.0	Feature bares		
Required time	12:56	Tabular correction	0.1	Stage of tide above MLW		
Interval	:28	Stage of tide above MLW	8.9	Feature above MLW		66-S-3223A

COMM-DC-57848

Computed by J. C. Richter Checked by _____

(17)