# TP-00734 ORIGINAL

#### NOAA FORM 76-35

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

# **DESCRIPTIVE REPORT**

Type of Survey Shoreline
Job No. CM-7311 Map No. TP-00734
Classification No. Final Edition No1
Field Edited Map
LOCALITY
State Washington
General Locality Tacoma Harbor
Locality City Waterway
1973 TO 1974
REGISTRY IN ARCHIVES
DATE

☆ U.S. GOVERNMENT PRINTING OFFICE: 1974-762-901

Res 1845-3-930-81RL Res 18445-50-9-30-81-RL Res 18448 - 9-30-81RL

			<del>_</del>
NOAA FORM 76-36A U. S. DEPARTMENT OF COMMERCE (3-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	TYPE OF SURVEY	SURVEY	TP-00734
,	ORIGINAL	MAPEDIT	ION NO. (1)
DESCRIPTIVE REPORT - DATA RECORD	RESURVEY	MAP CLAS	s Final
DEJORIT TIVE RELORD PARA RECORD	- REVISED		REC. CM-7311
PHOTOGRAMMETRIC OFFICE		<del></del> -	<del></del>
Coastal Mapping Division	LAST PRECEED		
· · · · · · · · · · · · · · · · · ·	TYPE OF SURVEY		PH
Atlantic Marine Center, Norfolk, Virginia	ORIGINAL	MAP CLAS	'S
OFFICER/M-CHARGE	RESURVEY	SURVEY D	ATES:
Jeffrey G. Carlen, Cdr., NOAA	-REVISED	19TO 1	9
I. INSTRUCTIONS DATED			
1. OFFICE	2.	FIELD	
Aerotriangulation Aug 30, 1973 Compilation Jan 22, 1974	May 17, 19	7 <b>3</b>	
11. DATUMS	OTHER (Specify)		
1. HORIZONTAL: X 1927 NORTH AMERICAN	(2,23,)		
MEAN HIGH-WATER  MEAN LOW-WATER  MEAN LOWER LOW-WATER  MEAN SEA LEVEL	OTHER (Specify)		
3. MAP PROJECTION	<del></del>	GRID(S)	
Polyconic	Washington	ZONE	outh
1:5,000	STATE	ZONE	
III. HISTORY OF OFFICE OPERATIONS	<u></u>	<u> </u>	
OPERATIONS	NAME		DATE
1. AEROTRIANGULATION BY	I. O. Raborn		1/74
METHOD: Analytic LANDMARKS AND AIDS BY			
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Calcomp CHECKED BY	R. Robertson	<del></del> -	1/74
	R. R. White		2/74
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY	L. O. Neterer		2/74
INSTRUMENT: Wild B-8 CONTOURS BY	NA	·	~/_14
1.7 500	NA NA	· · · · · · · · · · · · · · · · · · ·	<del></del>
			0/81
	Charles Parke	<u>r</u>	2/74
CHECKED BY	A. L. Shands		2/74
метнор: Smooth Drafted contours by	NA NA		<del> </del>
CHECKED BY	NA		<del> </del>
SCALE: 1:5,000 HYDRO SUPPORT DATA BY	<u>Charles Parke</u>	<u>r</u>	2/74
CHECKED BY	A. L. Shands		2/74
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY	A. L. Shands		2/74
6. APPLICATION OF FIELD EDIT DATA	J. Desch		4/75
7. COMPILATION SECTION REVIEW BY	A. L. Shands A. C. Rauck,	Tr	5/75 5/77
8. FINAL REVIEW BY		<u>,                                     </u>	Jan. 1978
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH SY	A. L. Shands A. L. Shands	1.	Mar. 1978
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY	J. B. Phillips		March, 1978
11. MAP REGISTERED - COASTAL SURVEY SECTION BY	RITI Cator		MRY 1978
NOAA FORM 76-36 A SUPERSEDES FORM Ca GS 181 SERIES	TO CONTRACT OF THE STATE OF THE	<del></del>	1-1K X 17/0

NOAA FORM 76-36B (3-72)			NATIONAL O	U. CEANIC AND	ATMOSPHERM	ENT OF COMMERCE C administration
	CO	TP-O MPILATIO	0734 ON SOURCES		NAT (ON)	AL OCEAN SURVEY
1. COMPILATION PHOTOGRAPHY						<u> </u>
CAMERA(S)		TYPE	S OF PHOTOGRAPH	Y	TIME REF	FRENCE
Wild RC-8 "E"		1	LEGEND	ZONE	<del></del>	
TIDE STAGE REFERENCE		∏(c) co		i -	acific	STANDARD
REFERENCE STATION RECORDS		1	NCHROMATIC Frared	MERI		DAYLIGHT
TIDE CONTROLLED PHOTOGRAP	HY	(4)	- NANED		20th	
NUMBER AND TYPE	DATE	ТІМ	E SCALE	=	STAGE C	F TIDE
73E(C) 9129 thru 9131	6/22/73	10:3	33 1:15,0	000	7.1 ft. s	above MLLW
73E(C) 9104 thru 9106	6/22/73	09:5				above MLLW
73E(C) 9112	6/22/73	10:1				above MLLW
	-, -, -, -,		,		, , , , , , , ,	
REMARKS		<u> </u>				
2. SOURCE OF MEAN HIGH-WATER L	.INE:					
The mean high water lin	e was deline	eated fr	om the above	listed r	hotograph	ıv.
<u> </u>						
			•			
3. SOURCE OF MEAN LOW-WATER O	R MEAN LOWER L	OW-WATER	LINE:			
·						
None compiled, but a Mi	W line in	riddle v	nterwny was d	dded by	the field	oditor.
			-	-	A	L.ن.
Field identified by fie	ld editor					
11014 140110111104 5, 110	14 041001					
						<u>.                                    </u>
. CONTENDODARY HYDROGOLDUI	CHINARYS					
4. CONTEMPORARY HYDROGRAPHIC	JURVETS (List	only those s	urveys that are source	es tor photogra	mmetric survey	(information.)
SURVEY NUMBER DATE(S)	SURVEY CO	PY USED	SURVEY NUMBER	DATE(S)	SUR	VEY COPY USED
Į	ĺ		Ì			
			<u></u>			
5. FINAL JUNCTIONS NORTH EA	ST		SOUTH		WEST	
TP-00732	_ TP-00735	5	No Surv	7 <b>6</b> 30	1	Survey
REMARKS			1 NO DULL	, c.y	i NO	PAT A EA
•						
			•			

NOAA FORM 76-36C (3-72)	•	NATIONAL OCEA	U. S. DEPARTMEN	ADMINISTRATION
	TP-007 HISTORY OF FIELD	34 OPERATIONS	NATIONA	L OCEAN SURVE
I. TIELD INSPECTION	ON OPERATION FIEL	D EDIT OPERATION		
	OPERATION		NAME	DATE
1. CHIEF OF FIELD PA	RTY.	D D	W- 73	6 /ma
	RECOVERED BY		Melby Melby	6/73 6/73
2. HORIZONTAL CONTR		None	MATDA	0/13
2. (10.11.00.11.00.00.00.00.00.00.00.00.00.0	PRE-MARKED OR IDENTIFIED BY	None		
	RECOVERED BY	NA NA		······································
3. VERTICAL CONTROL	. ESTABLISHED BY	NA		
	PRE-MARKED OR IDENTIFIED BY	NA	,	
	RECOVERED (Triangulation Stations) BY	None		
4. LANDMARKS AND	LOCATED (Field Methods) BY	None		
AIDS TO NAVIGATION	IDENTIFIED BY	None		
<del></del>	TYPE OF INVESTIGATION			<del></del>
5. GEOGRAPHIC NAMES	COMPLETE BY		,	
INVESTIGATION	SPECIFIC NAMES ONLY			
	X NO INVESTIGATION	<del></del>		
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None		
7. BOUNDARIES AND LI	MITS SURVEYED OR IDENTIFIED BY	NA NA	<del></del>	
II. SOURCE DATA  1. HORIZONTAL CONTR	OL IDENTIFIED	2 VERTICAL CO	NTROL IDENTIFIED	
	OL IDENTIFIED		WINDE IDENTIFIED	
None	<del></del>	NA	Γ	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIG	SNA TION
		1	}	
				-
3. PHOTO NUMBERS (C)	arification of details)			
	lone			
4. LANDMARKS AND AL	OS TO NAVIGATION IDENTIFIED			
None				
		<del></del>	<u> </u>	
PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT N	AME
			,	
5. GEOGRAPHIC NAMES	: REPORT A NONE	6. BOUNDARY AN	D LIMITS: EREPOR	T X NONE
7. SUPPLEMENTAL MAI	S AND PLANS			
Name				
None				
B. OTHER FIELD RECO	RDS (Sketch books, etc. DO NOT list data submi	tted to the Geodesy D	livision)	
None				
HOTTE				

NOAA FORM 76-36C (3-72)	TP-0073 History of Field	34	C AND ATMOSPHE	TMENT OF COMMERCE ERIC ADMINISTRATION IONAL OCEAN SURVEY
I FIELD INSPECTION OPE	ERATION X FIEL	D EDIT OPERATION		
0	PERATION	NA NA	ME	DATE
I. CHIEF OF FIELD PARTY		M. Flem	ing	3/74 - 4/74
<u> </u>	, RECOVERED BY	None		
2. HORIZONTAL CONTROL	ESTABLISHED BY	None		
	PRE-MARKED OR IDENTIFIED BY	None		
	RECOVERED BY	NA NA		
3. VERTICAL CONTROL	ESTABLISHED BY	NA NA		
	PRE-MARKED OR IDENTIFIED BY	NA		
, F	RECOVERED (Triangulation Stations) BY	None		
4. LANDMARKS AND	LOCATED (Field Methods) BY	None		
AIDS TO NAVIGATION	IDENTIFIED BY	None		
	TYPE OF INVESTIGATION			
5. GEOGRAPHIC NAMES	COMPLETE			
INVESTIGATION	SPECIFIC NAMES ONLY			ļ
	NO INVESTIGATION			
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None		<del></del>
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	NA NA		
II. SOURCE DATA	SORVE I ED ON IDENTIFICA			
1. HORIZONTAL CONTROL ID	ENTIFIED	2. VERTICAL CONTE	ROL IDENTIFIED	
None		NA		
		"	*TATION	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	51A IION	DESIGNATION
	,			
3. PHOTO NUMBERS (Clarifica	ation of details)	<u></u>		
None				
4. LANDMARKS AND AIDS TO	NAVIGATION IDENTIFIED	<del></del>		
None				
PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJE	CT NAME
		1		
4			*	
				•
Į.	•	1		
,		1		
5. GEOGRAPHIC NAMES:	REPORT X NONE	6. BOUNDARY AND I	· MITS: RE	PORT X NONE
7. SUPPLEMENTAL MAPS AND	<del></del>	or goodsan, and	E1991 91	PORT LA ROME
None	J FLANS			
				<u></u>
8. OTHER FIELD RECORDS (S	Sketch booke, etc. DO NOT list data submit	ted to the Geodesy Divi	ision)	
l Original Field F	Edit Ozalid and Field Edit.	Report		
			-	

(3-72)	RP-0073 History of Field	34	IIG AND ATMOSPHER	ENT OF COMMERCE IC ADMINISTRATION NAL OCEAN SURVEY
I. TIELD INSPECTION OPE		D EDIT OPERATION		
OF	PERATION	N <sub>t</sub>	AME	DATE
1. CHIEF OF FIELD PARTY		M. Flei		70/71 - 7/74
	RECOVERED BY	L. Riggers -		12/74 <b>-</b> 1/75
2. HORIZONTAL CONTROL	ESTABLISHED BY	None		
	PRE-MARKED OR IDENTIFIED BY	None		<del> </del>
	RECOVERED BY	NA NA		
3. VERTICAL CONTROL	ESTABLISHED BY	NA		
	PRE-MARKED OR IDENTIFIED BY	NA NA		
	RECOVERED (Triangulation Stations) BY	D. Eile	ers	12/74
4. LANDMARKS AND	LOCATED (Field Methods) BY	None	<u> </u>	+~,-
AIDS TO NAVIGATION	IDENTIFIED BY	None		<del></del>
	TYPE OF INVESTIGATION	Home		<del></del>
5. GEOGRAPHIC NAMES	COMPLETE	]		
INVESTIGATION	SPECIFIC NAMES ONLY	•		
	X NO INVESTIGATION			
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None		
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	NA		<del></del>
II. SOURCE DATA	30016160 00 1060116160	1 442		<del></del>
1. HORIZONTAL CONTROL IDE	ENTIFIED	2. VERTICAL CONT	TROL IDENTIFIED	
None		NA		
PHOTO NUMBER	STATION: NAME	PHOTO NUMBER	STATION DE	CI CN A TI ON
3. PHOTO NUMBERS (Clarificat	tion of details)	<del>-</del>	1	· · · · · · · · · · · · · · · · · · ·
None				
4. LANDMARKS AND AIDS TO N	NAVIGATION IDENTIFIED		· · · · · · · · · · · · · · · · · · ·	
None	TAYION ION IONNI IN INC.	·		
PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT	NAME
	,			
5. GEOGRAPHIC NAMES:	REPORT   X NONE	4 BOUNDARY AND	LIMITE, PERO	DT DONE
7. SUPPLEMENTAL MAPS AND		6. BOUNDARY AND	LIMITS: REPO	RT X NONE
l Site Plan - Bulk 1 Set Plans - Grai 8. OTHER FIELD RECORDS (SK 1 Original Field E	c Export Terminal n Export Facility ketch books, etc. DO NOT fist data submitt Edit Ozalid	ted to the Geodesy Div	rision)	
l Addenda Field Ed 4 Form 76-40's	it Report			

U. S. DEPARTMENT OF COMMERCE NOAA FORM 76-36D NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (3-72)TP-00734 RECORD OF SURVEY USE MANUSCRIPT COPIES COMPILATION STAGES DATE MANUSCRIPT FORWARDED DATA COMPILED DATE REMARKS MARINE CHARTS HYDRO SUPPORT Class III Manuscript Compilation complete, 2/74 3/74 3/74 pending field edit. Superseded Class I Manuscript Field edit applied. 4/75 Compilation complete. Final Review Feb. 1978 Final Feb. 1978 II. LANDMARKS AND AIDS TO NAVIGATION 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH CHART LETTER DATE NUMBER REMARKS NUMBER ASSIGNED FORWARDED 6/16/77 1 Landmark to be deleted. 6/16/77 1 Aid 6/16/77 2 Landmarks June 16, 1977 2. REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: 3. REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: III. FEDERAL RECORDS CENTER DATA 1. A BRIDGING PHOTOGRAPHS; DUPLICATE BRIDGING REPORT; COMPUTER READOUTS.
2. CONTROL STATION IDENTIFICATION CARDS; FORM NOS SET SUBMITTED BY FIELD PARTIES. 3. X SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS: 4. DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED:

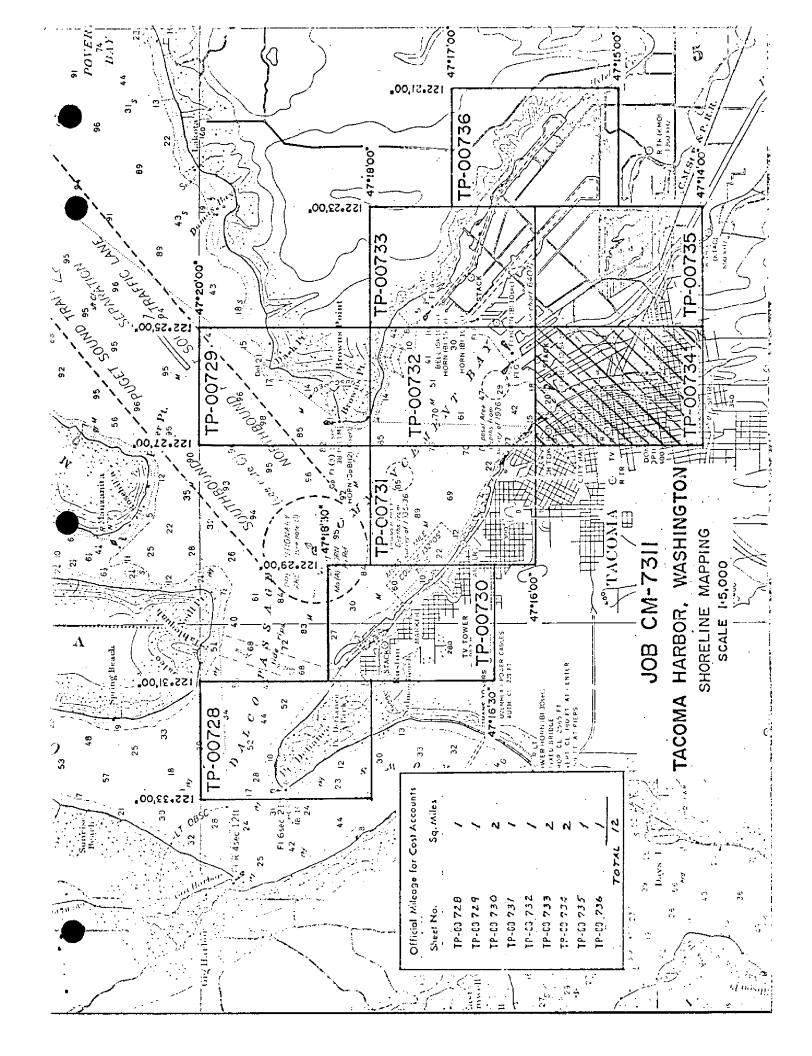
#### IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered) SURVEY NUMBER JOB NUMBER TYPE OF SURVEY REVISED TP -RESURVEY SECOND DATE OF PHOTOGRAPHY DATE OF FIELD EDIT MAP CLASS EDITION □i1. FINAL TYPE OF SURVEY SURVEY NUMBER JOB NUMBER RESURVEY REVISED THIRD DATE OF FIELD EDIT DATE OF PHOTOGRAPHY MAP CLASS EDITION □ni. □iv. □v. FINAL TYPE OF SURVEY SURVEY NUMBER JOB NUMBER REVISED RESURVEY PH. \_ (4) FOURTH DATE OF PHOTOGRAPHY DATE OF FIELD EDIT MAP CLASS EDITION

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\_\_v.

PINAL

□m. □iv.



#### SUMMARY TO ACCOMPANY

#### DESCRIPTIVE REPORTS TP-00728 thru-TP-00736

The maps covered in this summary comprise all of Project CM-7311. They are all standard shoreline maps covering Commencement Bay and including the Hylebos, Blair, Sitcum, Milwaukee, Puyallup, St. Paul, Middle and City Waterways. The purpose of the project is to provide up-to-date shoreline and alongshore delineation in support of contemporary hydrographic surveys and for nautical chart construction. All maps are 1: 5,000 scale.

Photography of the area was flown at 1:15,000 scale in June, 1973. Both onshore and offshore flights were flown. Ratios of the offshore flights were processed by the compilation office for photo-hydro support.

Field work prior to compilation was limited to the recovery and identification of horizontal control used in bridging. There was no clearification of details.

Bridging was done at the Washington Science Center in January, 1974, using the onshore flights. Analytic triangulation methods were used. Points common to the offshore flights were established to determine ratio scales.

The maps were compiled at the Atlantic Marine Center during February and March, 1974, by Wild B-8 instrument method.

Many buildings currently charted are not shown on the maps. In most cases, buildings are shown on the chart as they appear on the photographs. However, in a few instances buildings shown on the chart are not visible on the photographs. Where this is so, that fact is stated in the review report of the affected map.

Field edit was partially done in April, 1974 and completed in December, 1974. It was applied to the maps at the Atlantic Marine Center in May, 1975.

Final review was performed at the Atlantic Marine Center in January, 1978. The original base maps and all pertinent data was forwarded to the Washington Science Center for final registration.

#### FIELD INSPECTION

## TP-00734

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery and identification of the horizontal control necessary for the aerotriangulation of the project.

#### PHOTOGRAMMETRIC PLOT REPORT

Tacoma Harbor Washington Job CM-7311 January 1974

#### 21. Area Covered

The area covered by this report pertains to the shoreline of Commencement Bay, Tacoma, Washington. This area is covered by nine 1:5,000 scale sheets, TP-00728 thru TP-00736.

#### 22. Method

Three strips of 1:15,000 scale color photography were bridged by analytic aerotriangulation methods. Strip No. 1 was measured on the David W. Mann Company mono comparator Model 422 and strips 2 and 3 were measured on the Wild stereo comparator. Sketch number 1 shows the flight lines of the photography and the placement of the control used in the adjustment. The three strips were controlled by field identified control paneled in 1973. Old control, which was office identified, was floated for checks. Ties were made between all bridging strips. points were located between the bridging photography and the offshore flights to determine the ratio scale. One cronapaque and one matte each were ordered of the offshore flights. Sketch number 2 shows the flight lines of the offshore photography. Data for ruling projections were furnished to the Coradomat to be plotted on the Washington South Plane Coordinate System.

## 23. Adequacy of Control

The control was adequate.

## 24. Supplemental Data

USGS quadrangles were used to provide vertical control for the adjustment.

## 25. Photography

The photography was adequate.

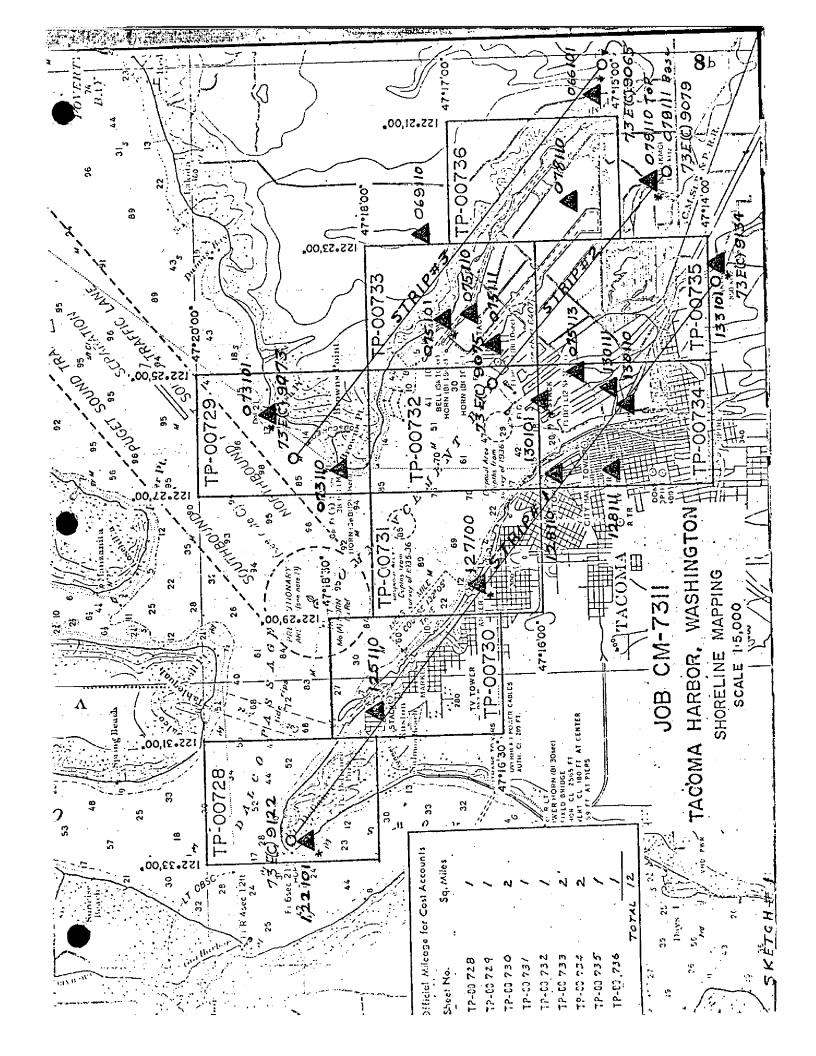
Respectfully submitted,

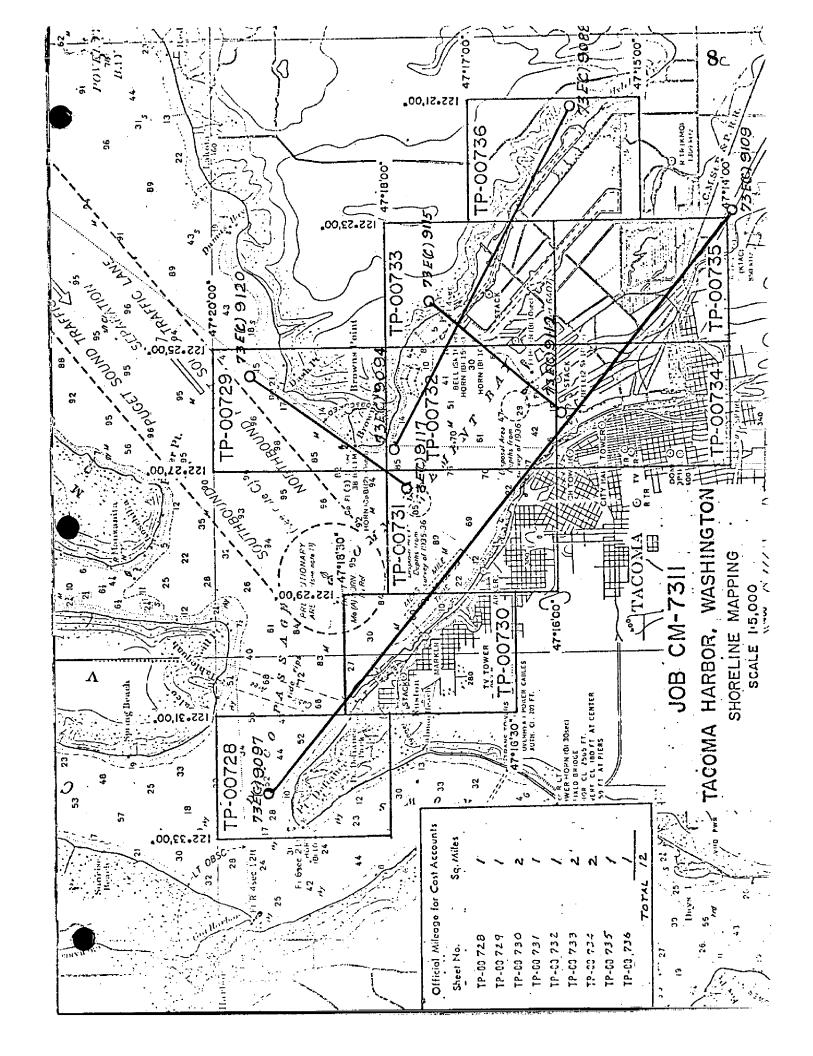
Ivey O. Raborn

Approved and Forwarded:

John D. Perrow, Jr.

Chief, Aerotriangulation Section





34. CM-731  SOURCE OF INFORMATION (Index)  WATERWAY, G.P. Vol 1  P. 246  G.P. Vol 1  P. 243  UYALLUP  CONTROL  G.P. Vol 1  P. 245  OF THREE G.P. Vol 1  P. 245  OF THREE	DESCRIPTIVE ANGULATION NUMBER NUMBER	PTIVE REPORT CONTROL RECORD  GEODETIC DATON  NA 1927  10	ORIGINATING ACTIVITY COASTAL Mapping Division, AMC, Norfolk, Virginia	'TY Coastal	Mapping Virginia
TP-00734, CM-731  STATION NAME  UXALLUP WATERWAY, G.P. VOL 1  STACK, 1935  BRIDGE, CONTROL  STACKS, 1935  CG.P. VOL 1  P. 246  G.P. VOL 1  P. 243  RBOR, PUYALLUP  G.P. VOL 1  P. 243  RBOR, PUYALLUP  STACKS, 1935  G.P. VOL 1  P. 245	<del>├───<del>╏</del>──<del>───</del><del>┃</del>──<del>╏</del>──<del>╏</del>──<del>┃</del></del>			"TY Coastal	Mapping
TP-00734  CM-731  STATION NAME  (Index)  (Index)	<del>╶╸</del> ┼ <del>╶┈┈┼┈┼┈┼┈┼┈┼┈</del> ┼┈╌┼┈╌┼┈		Division, Position		Winnin
5  UXALLUP WATERWAY,  STACK, 1935  BERDGE, CONTROL  G.P. Vol 1  P. 246  G.P. Vol 1  P. 243  G.P. Vol 1  P. 243  G.P. Vol 1  P. 245  STACK PUYALLUP  G.P. Vol 1  P. 245  STACK PUYALLUP  G.P. Vol 1  STACK OF THREE  G.P. Vol 1  P. 245  STACK OF THREE	┝╼╼╌╂╼╌┸╼┼═╌╂┈═┸	soordinates in Feet  state Washington  zone South  x= 708,845.70			3777877A
5  UXALLUP WATERWAY, G.P. Vol 1  STACK, 1935  F. C. Vol 2  P. 246  G.P. Vol 1  P. 243  G.P. Vol 1  P. 243  G.P. Vol 1  P. 243  RBOR, PUYALLUP  G.P. Vol 1  P. 243  STACKS 1935  G.P. Vol 1  P. 245  STACKS 1935  G.P. Vol 1  F. 245  STACKS 1935  G.P. Vol 1  F. 245  STACKS 1935	<del>┈╏╸╵┈┆┈╏┈╏</del>	ONE	φ LATITUDE	REMARKS	R KS
5  UYALLUP WATERWAY,  STACK, 1935  5  RBOR, PUYALLUP  BRIDGE, CONTROL  35  IGHEST OF THREE  G.P. Vol  P. 245  37  G.P. Vol  P. 245  35  G.P. Vol  P. 245  STACKS, 1935				FORWARD	BACK
UYALLUP WATERWAY, G.P. Vol STACK, 1935  F. 246  G.P. Vol RBOR, PUYALLUP BRIDGE, CONTROL 35  IGHEST OF THREE G.P. Vol P. 245 35  IGHEST OF THREE G.P. Vol RGHEST OF THREE STACKS 1935			Ð	845.70	(1154.30
STACK, 1935  5  RBOR, PUYALLUP BRIDGE, CONTROL  1GHEST OF THREE  G.P. Vol  7.243  6.P. Vol  7.245  7.245  7.245  7.245		y= 1,518,160.24	γ	160.24	(1839.76
STACK, 1935  F. 246  G.P. Vol  RBOR, PUYALLUP  BRIDGE, CONTROL  35  IGHEST OF THREE  G.P. Vol  P. 245  STACKS, loaf  P. 245		χ=	φ 47 15 59.402	1834.5	(18.4)
BRIDGE, CONTROL  G.F. Vol  P. 243  G.F. Vol  35  IGHEST OF THREE  G.F. Vol  P. 245  STACKS 1935		<i>y</i> =	λ 122 25 32,520	683.6	(577.7)
REOR, PUYALLUP BRIDGE, CONTROL  35 IGHEST OF THREE G.P. Vol STACKS 1935		χε	<ul><li>47 14 45.778</li></ul>	1413.7	(439.2)
REOR, PUYALLUP BRIDGE, CONTROL 35 IGHEST OF THREE G.P. Vol 1935 STACKS 1935		y=	λ 122 25 26.296.	553.0	(708.8)
35 ICHEST OF THREE G.P. Vol. STACKS, 1934		××	φ 47 15 36.976	1141.9	(711.0)
IGHEST OF THREE G.P. Vol		y=	λ 122 25 03. <u>135</u>	65.9	(1195.5)
3TACKS 1038	<b>J</b>	-X	φ 47 15 17.038	526.2	(1326.7)
	_	y=	λ 122 25 15.871	333.7	(927.9)
•	. <u></u> J	x= 705,798.52	φ	1798.52	(201.48
		y= 1,523,185.24	γ	1185.24	(814.76
MA, WOCO, RED TANK, G.P.		χ=	\$ 47 15 11.012	340.1	(1512.8)
1935 P. 244		η=	λ 122 25 32.015	673.2	(588.4)
•	1	zχ	ф 47 15 27.377	845.5	(1007.4)
		<i>i</i> }=	λ 122 26 18.968	398.8	(862.7)
STATION KTOY G.P.	1	χ=	φ 47 15 08.538	263.7	(1589.2)
FM, MAST, 1954		y=	λ 122 26 44.905	944.3	(317.3)
CT HEATING COMPANY, G.P.	<u> </u>	-x	φ 47 15 07.536	232.7	(1620.2)
K, 1927 P. 90	ĺ	y=	λ 122 26 00.508	10.7	(1250.9)
COMPUTED BY A. C. RAUCK, Jr.	2/01/74	COMPUTATION CHECKED BY	R. Gustafson	DATE 2/01/74	7.17
		LISTING CHECKED BY	,	DATE	
HAND PLOTTING BY	DATE	HAND PLOTTING CHECKED BY		DATE	

NOAA FORM 76-41 (6-75)				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	. DEPARTMENT C	F COMMERCE
		DESCRIPTIV	CRIPTIVE REPORT CONTROL RECORD			
MAP NO.	ON BOE			ORIGINATING ACTIVITY	VITY COASTAL	Mapping
T.F-00734	CM-7311	T.	NA 1927	Division, AMC	3, Norfolk,	Virginia
STATION NAME	SOURCE OF	AEROTRI- ANGULATION	COORDINATES IN FEET	GEOGRAPHIC POSITION	REMARKS	RKS
	(Index)	NUMBER	ZONE	λ LONGITUDE	FORWARD	BACK
DISTRICT HEATING COMPANY,	G.P. Vol 1		χ=	φ 47 15 06.877	212.4	(1640.5)
SOUTH STACK, 1927			<i>y</i> =	λ 122 25 59.882	1259.2	(2.5)
FIRST PRESBYTERIAN CHURCH	G.P. Vol 1		χ=	<ul><li>4 47 15 49.413</li></ul>	1526.0	(326.9)
SPIRE, 1927	P. 88		y=	λ 122 26 45.562	957.8	(303.6)
TACOMA, ST. JOSEPH HOSPITAL			χε	φ 47 14 40.984	1265.7	(587.2)
DOME, 1927	P. 1568		∂=	λ 122 26 46,647	981.0	(280.8)
TACOMA, J STREET STANDPIPE,			<i>χ</i> **	φ 47 14 35.952	1110.3	(742.6)
1919-1921	P. 85		y=	λ 122 26 47.585	1000.8	(261.1)
TACOMA, PUGET SOUND PLYWOOD	Field Edit		<i>χ=</i>	<ul><li>47 15 43.637</li></ul>	1347.6	(505.3)
BLACK STACK, 1973	Position		y=	λ 122 25 59.294	1246.6	(14.9)
TACOMA HARBOR, CITY WATERWAY	<u> </u>		χ=	φ 47 15 42.610	1315.9	(537.0)
LIGHT, 1973	Position		y= .	λ 122 26 06.913	145.3	(1116.2)
OLOC WWIIO			χε	<ul><li>47 15 54.268</li></ul>	1675.9	(177.0)
	P. 85		η=	λ 122 26 40.616	853.9	(407.5)
TACOMA, HOLY ROSARY CHURCH,			χ=	φ 47 14 00.710	21.9	(1831.0)
SPIRE, 1955	P. 1569		<i>ή=</i>	λ 122 26 19.793	416.3	(845.8)
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			y=	۲		
COMPUTED BY A. C. Rauck, Jr.	r.	2/61/74	COMPUTATION CHECKED BY F.	R. Gustafson	DATE 2/01/74	74
		DATE	LISTING CHECKED BY		DATE	
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY		DATE	
		SUPERSEDES N	SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE	H IS OBSOLETE.	Page 2 of	<b>79</b> Ŀ

#### COMPILATION REPORT

#### TP-00734

#### 31. <u>DELINEATION</u>:

Delineation was by the Wild B-8 stereoplotter, using 1:15,000 scale color photography.

The southern part of City Waterway was extremely difficult to interpret because of the presence of numerous floating logs and debris in the area.

#### 32. CONTROL:

See the attached Photogrammetric Plot Report dated January 1974.

#### 33. SUPPLEMENTAL DATA:

None.

#### 34. CONTOURS AND DRAINAGE:

Contours are not applicable to the project. Drainage was delineated by the Wild B-8 stereoplotter and by office interpretation of the photographs.

#### 35. SHORELINE AND ALONGSHORE DETAILS:

Alongshore details were delineated by the Wild B-8 stereoplotter and by office interpretation of the photographs.

The mean high water line was delineated from the photographs.

#### 36. OFFSHORE DETAILS:

None.

### 37. LANDMARKS AND AIDS:

Compilation office prepared work copies of Forms 76-40 were forwarded to the field editor for verification, location and/or deletion.

## 38. CONTROL FOR FUTURE SURVEYS:

None.

### 39. JUNCTIONS:

See the attached Form 76-36B, Item #5 of the Descriptive Report concerning junctions.

#### 40. HORIZONTAL AND VERTICAL ACCURACY:

No statement.

#### 46. COMPARISON WITH EXISTING MAPS:

A comparison has been made with the following USGS Quadrangles: TACOMA NORTH, WASHINGTON, AND TACOMA SOUTH, WASHINGTON, each scaled 1:24,000, dated 1961 revised 1968.

## 47. COMPARISON WITH NAUTICAL CHARTS:

A comparison has been made with the following USC&GS Chart: No. 6407, 12th edition, dated January 27, 1973, scaled 1:15,000.

#### ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

#### ITEMS TO BE CARRIED FORWARD:

None.

Submitted by:

Albert C. Ranch J. For Charles Parker Cartographic Aid February 14, 1974

Approved for forwarding:

Albert C. Rauck, Jr.

Chief, Coastal Mapping Section, AMC

January 11, 1978

#### GEOGRAPHIC NAMES

#### FINAL NAME SHEET

CM-7311 (Tacoma Harbor, Washington)

TP-00734

Burlington Northern (RR)

Chicago Milwaukee St. Paul & Pacific (RR)

City Waterway

Commencement Bay

Middle Waterway

Milwaukee Waterway

Puyallup Waterway

St. Paul Waterway

Tacoma

Approved by:

Charles E. Harrington Staff Geographer - C51x2

PHOTOGRAMMETRIC OFFICE REVIEW TP = 00734  1, PROJECTION AND GRIDS ALS ALS ALS ALS  CONTROL STATIONS 5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY ALS ALS  B. BENCH MARKS  9. PLOTTING OF SEXTANT 10. PHOTOGRAMMETRIC PLOT REPORT ALS  ALS  ALS  ALS  ALS  ALS  ALS  ALS
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MANUSCRIPT
ALS ALS ALS
36. DISCREPANCY OVERLAY 37. DESCRIPTIVE REPORT 38. FIELD INSPECTION 39. FORMS PHOTOGRAPHS
ALS ALS ALS ALS
40. REVIEWER SUPERVISOR, REVIEW SECTION OR UNIT
A. L. Shands 2/25/74 Albert C. Rauch Jr.
A. L. Shands 2/25/74   Albert C. Rauck, Jr.  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.
J. Desch Joanne Jeish 4/75   Supervisor L. J. Manfeld J. Reviewer A. I. Shands 5/75   Albert C. Rauck, Jr.
43. REMARKS
See Form 76-36Cg:, Items 7 and 8.

FIELD EDIT REPORT

MAP TP-00734

TACOMA, WASHINGTON

MARCH-APRIL, 1974

Field edit of map TP-00734 was done by Ens. John L. Oswald and Ens. Roger W. Mercer during the months of March and April, 1974. Inspection was done from a launch and skiff with some shore inspection on foot where required.

#### METHOD

A copy of the Field Edit Ozalid was examined in the field and compared with actual shore features. Sextant fixes were taken on many dolphins, piles and moored floats; but, unfortunately, records of these fixes weren't kept. By the time it was learned that fix data were required, the Field Edit was almost completed. Fixes were plotted as taken and plotted location was visually compared with nearby features.

A search was made for Tacoma City Waterway West Entrance Green Light, 1935, but no structure of any kind existed in that immediate vicinity. This light has apparently been completely removed. A Recovery Note (Form 526) has been submitted for this station.

No geodetic positions were obtained using field methods for two towers southwest of City Waterway. Discrepancies on Puyallup Waterway could not be investigated from a skiff due to very shallow water there. These portions of the Puyallup River are too shallow for navigation by even the shallowest draft skiffs and, consequently, of no interest to commercial shipping.

#### ADEQUACY OF COMPILATION

Compilation of this map is adequate. Photogrammetric locations of features agree well with sextant locations based on established triangulation stations.

#### RECOMMENDATIONS

It is recommended that this manuscript be revised as per Field Edit Notes on the Discrepancy Ozalid and, except for the un-investigated features in Puyallup Waterway and the southeast portion of Middle Waterway, then be accepted as an advanced manuscript.

Submitted by,

Roger W. Mercer

Roger W Mercer ENS, NOAA

M.H. Fleming CDR, NOAA Commanding Officer NOAA SHIP DAVIDSON

#### ADDENDA FIELD EDIT REPORT

Commencement Bay, Washington Dec 1974 - Jan 1975 OPR-412 Project CM-7311

This report is a follow-up and completion of the original field edit accomplished in this area in March and April of 1974. Certain deficiencies were noted in the original field edit; and this report is being submitted to correct, clarify, or alleviate any errors or misconceptions that may have been conveyed in the original report.

Although this report was not intended to be a complete re-field edit of the area, certain items from the previous report were checked to verify positions and resolve suspect features. It is suspected the original field editors did not use the photographs to their full advantage as the majority of items in question could be located by photogrammetric methods.

The majority of the landmarks were verified by computing the inverse for intersection stations and occupying marked triangulation stations and observing theodolite cuts.

The field edit copies of the manuscripts were used for the field corrections (in blue and dated) and the photographs were cross-referenced to the field edit copies.

Adequacy: The extent and accuracy of this field edit with amended items of the original field edit and completed forms 76-40 now appears complete.

Pertinent information for each individual discrepancy sheet is listed under that specific sheet.

#### TP-00728

Re-field edited 12/11/74. Agreed with the original field edit except the bluff in question is considered of landmark value. It is of significant height, and distinct boundaries are clear as plotted.

For verification of Pt. Defiance Light see attached NOAA Form 76-40.

#### TP-00729

Re-field edited 12/11/74. Original field edit complete. Brown Point Lighthouse recovered. See attached form 76-40.

#### TP-00730

Re-field edited on 12/12/74, 12/13/74, and 1/10/75. All landmarks were recovered. Lighted aids to navigation were located by photogrammetric methods on photograph 73E9100. The triangulation station TARGET, 1952, in question was reported destroyed in 1965 by H.J.S. (page 41 of book 392) and no attempt was made to recover it.

The position of the Commencement Bay Measured Nautical Mile northwest range front marker was determined by an angle distance from reference mark of the triangulation station TARGET. The position of the northwest range rear marker was determined by an angle and distance from the reference mark of triangulation station BLUFF, 1935. Both positions are less than third order. See the enclosed computations and form 76-40.

#### TP-00731

Re-field edited on 12/12/74. The positions of the Commencement Bay Measured Nautical Mile southeast markers, both front and rear, were determined by an angle and distance from RUSTON, RM NO2. Both positions are less than third order. See the enclosed computations and form 76-40.

#### TP-00732

Re-field edited on 12/10/74. Nonfloating aids to navigation were triangulation stations that were recovered. The new stack considered of landmark value was located photogrammetrically.

The Grain Export Facility under construction in April, 1974, is nearing completion. The pier faces are complete with work on the tower continuing. Port authorities expect to have the facility in operation in June, 1975. The plans for this facility were obtained and are enclosed.

#### TP-00733

This sheet was re-field edited on 12/10/74, 1/6/75, and 1/10/75. Two charted tanks are gone and should be deleted from the charts. See enclosed form 76-40.

Three landmarks (triangulation stations) were recovered and recovery notes submitted. The twin chimneys were located photogrammetrically on photograph 73E9091. The charted stack mentioned in the April, 1974, field edit as being of no landmark value is considered of landmark value in this report. Although poorly visible from Commencement Bay, it is quite distinguishable in the Hylebos Waterway. See photograph 73E9091.

Two large dome-shaped storage elevators depicted on the charts, but not compiled on the ozalid, should be left on the charts, as they are salient features and visible from offshore in Commencement Bay. See photograph

73E9113. Two navigation lights were recovered, and the fog signals were located photogrammetrically on photograph 73E9114.

#### TP-00734

The three items not previously investigated were field edited 12/12/74 and noted on the ozalid. One nonfloating aid to navigation was recovered. One tank, as noted on form 76-40, should be deleted from the chart, as it no longer exists.

Fourteen landmarks were located. Twelve were triangulation and were recovered. Two were located photogrammetrically on photograph 73E9104.

TP-00736

Re-field edited 12/12/74. The new boat was located on photograph 73E9090 by planetable methods. It is a private boat ramp and not maintained by the port authorities. The two stacks considered of landmark value by this field edit were located photogrammetrically on photograph 73E9089 and 73E9088.

There is new construction of a barge-loading facility in the Blair Water-way turning basin. The plans for this facility were obtained from the Port authorities and are enclosed.

Respectfully submitted,

D.S. Eilers LTJG, NOAA Approved by,

Michael H. Fleming

CDR, NOAA

Commanding Officer

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NOAA FORM 76-40 (8-74)	0		٠		Z	NATIONAL OCEANIC	C AND ATMOSPHI	U.S. VEFARIMENI OF COMMENCE AND ATMOSPHERIC ADMINISTRATION	Н	PARTY
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TO BE CHARTED TO BE REVISED		FEFORTING UNIT Office) Div. Coastal Mapping Div.	) TS	vre Washington	uo:	LOCALITY	Tacoma Harbor	DATE 4/21/75	<u>800</u>	TIVITY OL & REVIEW GRP
of following object	<b>−</b> [₹		been inspected		vard to de	stermine their vo	seaward to determine their value as landmarks	.5.	(See reverse for responsible personnel)	ANCH Isible personnel)
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CITY HALL TOWER		(TACOMA CITY HALL, 1905)		7	51 75	L	26 1	3 73E(C)9105 6/22/73	Triang. Rec. 12/10/74	6460 6401, 6407 185-SC
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FIELD  i. NEW POSITION DETERMINED OR VERIFIED  i. NEW POSITION DETERMINED OR VERIFIED  Enter the applicable data by symbols as follows:  F - Field  P - Photogrammetric  L - Located  Vis - Visually  V - Verified  L - Visually  EXAMPLE: Triang. Rec.	OFFICE  I. OFFICE IDENTIFIED AND LOCATED OBJECTS  Enter the number and date (including month, day, and year) of the photograph used to identify and locate the bject.  EXAMPLE: 75E(C)6042  OFFICE IDENTIFIED AND LOCATED OBJECTS  FIELD (Cont'd)  B. Photogrammetric Instructions No. 64,  FIELD (Cont'd)  FIELD (Cont'd)  FIELD (Cont'd)  B. Photogrammetric Instructions No. 64,  FIELD (Cont'd)  FIELD (C		POSITIONS DETERMINED AND/OR VERIFIED L. L. Rigger, PMC; D. S. Eilers, Lt. (jg), NOAA FI	WARD	TYPE OF ACTION NAME	RESPONSIBLE PERSONNEL
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NOAA FORM 78-40 (8-74)

SUPERSEDES NOAA FORM 76-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION.

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Page 2

	RESPONSIBLE PERSONNEL	
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		X HYDROGRAPHIC PARTY
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	J. Desch	OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL		REVIEWER
AND REVIEW GROUP AND FINAL REVIEW		QUALITY CONTROL AND REVIEW GROUP
ACTIVITIES		REPRESENTATIVE
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	(Consult Photogrammetric Instructions No. 64,	•
	: E E D (C-1+)L)	

1. OFFICE IDENTIFIED AND LOCATED OBJECTS day, and year) of the photograph used to Enter the number and date (including month, identify and locate the object. 75E(C)6042

- I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: Field P - Photogrammetric Vis - Visually
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- Verified
- Triangulation Field identifiéd
- Traverse
- Theodolite
- Intersection

Resection

- Sextant Planetable
- Field positions\* require entry of method of location and date of field work.

\*F!ELD POSITIONS are determined by field observations based entirely upon ground survey methods. EXAMPLE: F-2-6-L 8-12-75

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B. Photogrammetric field positions\*\* require date of field work and number of the photoentry of method of location or verification, EXAMPLE: P-8-V graph used to locate or identify the object.

8-12-75 74L(c)2982

- angulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 When a landmark or aid which is also a TRIANGULATION STATION RECOVERED tri-
- III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH **EXAMPLE:** Enter 'V+Vis.' and date. V-Vis. 8-12-75

\*\*PHOTOGRAMMETRIC FIELD POSITIONS are dependent by photogrammetric methods. entirely, or in part, upon control established

NOAA FORM 76-40 (8-74)

SUPERSEDES NOAA FORM -40 (2-71) WHICH IS OBSOLETE, AND. Destroyed upon receipt of revision.

er U.S. GOVERNMENT PRINTING OFFICE: 1974-665-073/1030 Region 6





HYDROGRAPHIC PARTY
CEODETIC PARTY
COMPLATION ACTIVITY
FINAL REVIEWER
QUALITY CONTROL & REVIEW GRP.
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(See reverse for responsible personnel) 6401, 6407 185-SC AFFECTED 0979 DRIGINATING ACTIVITY Triang. Rec. 12/12/74 METHOD AND DATE OF LOCATION (See instructions on reverse side) FIELD NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION UNIT OF COMMERCE UNIT OF ALBORNERS ADMINISTRATION UNIT OF ALBORNERS ADMINISTRATION UNIT OF ALBORNERS AND ATMOSPHERIC AND ATMOSPHERIC ADMINISTRATION UNIT OF ALBORNERS AND ATMOSPHERIC AND ATMOSPHERIC ADMINISTRATION AND ATMOSPHERIC AND ATMOSPHERIC AND ATMOSPHERIC ADMINISTRATION AND ATMOSPHERIC ADMINISTRATION ATMOSPHERIC AND ATMOSPHERIC ADMINISTRATION ATMOSPHERIC AND ATMOSPHERIC ADMINISTRATION ATMOSPHERICA AND ATMOSPHERIC ADMINISTRATION ATMOSPHERIC ADMINISTRATION ATMOSPH 4/21/12 OFFICE 26,06.913 The following objects HAVE X HAVE NOT | been inspected from seaward to determine their value as landmarks.

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	RESPONSIBLE PERSONNEL	PERSONNEL	
TYPE OF ACTION	NAME		ORIGINATOR
			THOTO FIELD PARTY
OBJECTS INSPECTED FROM SEAWARD			OTHER (Specify)
	L. L. Riggers, PMC; D. S. E	Eilers, Lt. (jg), NOAA	FIELD ACTIVITY REPRESENTATIVE
TOST TONS DETERMINED AND/OR VERTITED	J. Desch		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES			REVIEWER  QUALITY CONTROL AND REVIEW GROUP  REPRESENTATIVE
	INSTRUCTIONS FOR ENTRIES UNDER METHOD AND DATE OF (Consult Photogrammetric Instructions No. 64,	METHOD AND DATE OF LOCATION'	
OFFICE 1. OFFICE IDENTIFIED AND LOCATED OBJECTS		FIELD (Cont'd)  B. Photogrammetric fie	Cont'd) Photogrammetric field positions** require
Enter the number and date (including month, day, and year) of the photograph used to identify and locate the bject.  EXAMPLE: 75E(C)6042  8-12-75	(including month, tograph used to bject.	entry of method of lo date of field work an graph used to locate EXAMPLE: p-8-V 8-12-75 74L(C)2982	method of location or verification, field work and number of the photoed to locate or identify the object. P-8-V 8-12-75 74L(C)2982
FIELD  I. NEW POSITION DETERMINED OR VERIFIED  Enter the applicable data by symbol  F = Field  P = Photogramme	NED OR VERIFIED data by symbols as follows:	II. TRIANGULATION STATION RECOVERED When a landmark or aid which is angulation station is recovered	ON STATION RECOVERED  station is recovered, enter 'Triang,
i ed	Visually		overy.
l - Triangulation 5 - F 2 - Traverse 6 - T	Field identified Theodolite	8-12-75	
tion 7 - n 8 -	Planetable Sextant	¿ <	TE.
sitions*	require entry of method of of field work.	EXAMPLE: V-VIS. 8-12-75	
EXAMPLE: +-2-6-L 8-12-75		**PHOTOGRAMMETRIC FIELD PC entirely, or in part, up	IC FIELD POSITIONS are dependent in part, upon control established
*FIELD POSITIONS are determined by field obser- vations based entirely upon ground survey meth	OSITIONS are determined by field obser- based entirely upon ground survey methods.	쿬	ds.

NOAA FORM 75-40 (8-74)

SUPERSEDES NOAA FORM 76-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE, DESTROYED UPON RECEIPT OF REVISION.

❖ U.S. GOVERNMENT PRINTING OFFICE: 1974-665-073/1030 Region 6



NOAA FORM 76-40			7	IN A P C C I A M C I	C.S.	DEPARTMEN	T OF COMMERCE	ORIGINATING ACTIVITY	CTIVITY
Replaces C&GS Form 567.	m 567.	蓋	OMARKS	FOR CHART				HYDROGRAPHIC PARTY GEODETIC PARTY PHOTO FIELD PARTY	4RTY TY
	NITOGGG	CTATE		VT: IV			DATE:		
TO BE CHARTED	Coasta	Div. Washington	ton	Tacoma	ma Harbor	bor	4/18/75	TOWALLY CONTROL & REVIEW GRP.	FYII T BREVIEW GRP.
X TO BE DELETED	ETED AMC, Norfolk, Vi	ia		:				COAST PILOT BRANCH	IUZ
The following	HAVE NOT	been inspected from seaward to determine their value as landmarks	ward to de	termine their vo	alve as la	ndmarks.		(See reverse for responsible personnel)	ible personnel)
OPR PROJECT		SURVEY NUMBER	Wnlya	NA 19	1927		METHOD AND DATE OF LOCATION	E OF LOCATION	
		100		POSITION			(See instructions on reverse side)	on reverse side)	CHARTS
	DESCRIPTION	z	LATITUDE	Jan	LONGITUDE	JOE			AFFECTED
NAME	(Record resson for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	k or aid to navigation. re applicable, in parentheses)	, ,	D.M. Meters	/	// D.P. Meters	OFFICE	FIELD	
TANK	(TACOMA, CITY WATERWAY HIGHEST TANK, 1933); tank removed.	HIGHEST BLACK	51 47	53.667 1657.3	f	25 28.514		F-Wuis 12/12/74	6401, 6407 185-80
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tions* require entry of method of nd date of field work.  F-2-6-L 8-12-75 ***PHO ent	I. NEW POSITION DETERMINED OR VERIFIED  Enter the applicable data by symbols as follows:  F - Field  P - Photogrammetric  L - Located  VIS - Visually  V - Verified  1 - Triangulation  2 - Traverse  4 - Resection  8 - Sextant  III. TRIANGULATION STATION RECOVERED  When a landmark or aid which is also at angulation station is recovered, enter 'Rec.' with date of recovery.  EXAMPLE: Triang. Rec.  EXAMPLE: Triang. Rec.  111. POSITION VERIFIED VISUALLY ON PHOTOGRAPH  Enter 'V+Vis.' and date.	E FFICE IDENTIFIED AND LOCATED OBJECTS  B. Photogrammetric field positions** entry of method of location or ver date of field work and number of t graph used to locate or identify t XAMPLE: 75E(C)6042  EXAMPLE: 75E(C)2982	ACTIVITIES  INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'  (Consult Photogrammetric Instructions No. 64,	FORMS ORIGINATED BY QUALITY CONTROL    REVIEWER   QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW	POSITIONS DETERMINED AND/OR VERIFIED  L. L. Riggers, PMC; D. S. Eilers, Lt. (jg), NOAA  FIELD ACTIVITY REPRESENTATIVE  J. Desch  OFFICE ACTIVITY REPRESENTATIVE	OBJECTS INSPECTED FROM SEAWARD  GEODETIC PARTY  OTHER (Specify)	TYPE OF ACTION RESPONSIBLE PERSONNEL ORIGINATION	
are dependent rol established	RED is also a tri- red, enter 'Triang.	tions** require on or verification, ber of the photo- lentify the object.	ESENTATIVE	REVIEWER  QUALITY CONTROL AND REVIEW GROUP	FIELD ACTIVITY REPRESENTATIVE	O FIELD PARTY OGRAPHIC PARTY ETIC PARTY R (Specily)	ORIGINATOR	

NOAA FORM 78-40 (8-74)

SUPERSEDES NOAA FORM 74-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION.

#### REVIEW REPORT TP-00734

#### SHOREL I NE

February 1, 1978

#### 61. GENERAL STATEMENT:

See Summary, page 6 of this Descriptive Report.

Many water features, dolphins, piles, floats, etc. are labeled "(PA)" for position approximate. These features are not visible on the photographs. Their positions were approximated on the Paper Field Edit Ozalid by the field editor and transferred to the map.

The field editor indicated on the Field Edit Ozalid the existance of a drydock on the southeast shore of Middle Waterway. His leader points to the southside of a building shown on the map. There is no photogrammetric evidence that a drydock exist at that location. Evidence suggest that the drydock is located immediately south of the position indicated. The facility is mapped at the position identified on the photographs.

A new grain elevator and pier complex located at latitude 47°15.8', long 122°26.5' was delineated using engineering drawings supplied by the field editor. These drawings are not tied to the N.A. 1927 datum. The position of the facility therefore, is considered approximate.

Two dolphins located at the mouth of Middle Waterway, marking the ends of a "barge morage", were spotted on the field edit ozalid by the editor. It was determined during final review that these features are visible on the photography in slightly different positions than indicated on the field edit ozalid. The positions were changed during final review to agree with the photography.

#### 62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Not applicable.

#### 63. COMPARISON WITH MAPS OF OTHER AGENCIES:

Not applicable.

#### 64. COMPARI SON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Comparison was made with a copy of Final Verified Smoothsheet H-9412 (DA-5-3-74). There are no significant differences.

#### 65. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with Chart 18453, 1:15,000 scale, a 14th edition dated May 29, 1976. Many minor differences were noticed in the shoreline and alongshore details. These were indicated on the chart maintenance print.

Two buildings charted at latitude 47°14.7', longitude 122°25.8; six buildings charted at the southwest tip of Middle Waterway and the floating drydock shown near the mouth of Middle Waterway are not visible on the photographs. The landmark tank charted at latitude 47 15.8', longitude 122 25.5' was reported destroyed by the field editor.

#### 66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This map complies with the Project Instructions and meets the requirements for Bureau Standards and the National Standards of Map accuracy.

Submitted by:

Q. L. Shands

A. L. Shands Final Reviewer

Approved for forwarding:

albut & Ranck, M. FOR

Jeffrey G. Carlen

Chief, Coastal Mapping Division, AMC

Approved:

Chief, Photogrammetric Branch

Chief, Coastal Mapping Division

## **RECORD OF APPLICATION TO CHARTS**

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. TP-00734

### INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

Letter all information.
 In "Remarks" column cross out words that do not apply.
 Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
18453	9-9-81	R.a. Lillis	Full Part Before After Verification Review Inspection Signed Via
.:		9-30-81-RCX	Drawing No. 24
18448	9/15/81	R.O. Llli	Full Part Before After Verification Review Inspection Signed Via
		9-30-81 ROS	Drawing No. 3/
18445	9/10/81	RO 1.00:	Full <del>Pare Befor</del> e After Verification Review Inspection Signed Via
c#B	771070	9-30-BI ROC	Drawing No. 18
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