00025

00025

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Chart Topography

Field No. PH-6804 *Office No.* TP-00025

LOCALITY

State Washington

General locality Snake River

Locality Lower Monumental Pool

19 69-70

CHIEF OF PARTY

Richard H. Houlder

LIBRARY & ARCHIVES

DATE

USCOMM-DC 5087

ESSA FORM 76-36a (2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMIN.
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY
[X] ORIGINAL
[ ] REVISED

SURVEY TP - 00025
JOB PH - 6804

PHOTOGRAMMETRIC OFFICE
Rockville, Maryland

OFFICER-IN-CHARGE
Richard H. Houlder

FOR REVISED SURVEY USE ONLY
ORIGINAL SURVEY DATA:
JOB PH - _____
DATES:
19____ TO 19____

I. INSTRUCTIONS DATED

1. OFFICE	2. FIELD
from Marine Chart Division April 3, 1968 Aerotriangulation Jan. 8, 1969 Office July 17, 1969	Field June 25, 1968 Field Supplement I Aug. 21, 1968

II. DATUMS

1. HORIZONTAL: [X] 1927 NORTH AMERICAN — OTHER (Specify)

2. VERTICAL: [ ] MEAN HIGH-WATER [ ] MEAN LOW-WATER [ ] MEAN LOWER LOW-WATER [X] MEAN SEA LEVEL — OTHER (Specify): Normal Pool Level 540 ft. MSL

3. MAP PROJECTION: Mercator

4. GRID(S): STATE: Washington; ZONE: South

5. SCALE: 1:10,000 — STATE: ; ZONE:

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD:	BY	I. I. Saperstein	Aug. 1969
	LANDMARKS AND AIDS BY		
2. CONTROL AND BRIDGE POINTS METHOD: Coradi	PLOTTED BY	P. J. Dempsey	Sept. 1969
	CHECKED BY	J. C. Richter	" "
3. STEREOSCOPIC INSTRUMENT COMPILATION	PLANIMETRY BY	J. C. Richter	Sept. 1969
	CHECKED BY		
INSTRUMENT: B-8	CONTOURS BY	J. C. Richter	Sept. 1969
SCALE: 1:10,000	CHECKED BY		
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	R.A. Youngblood-M.C. Webber	Oct. 1969
	CHECKED BY		
METHOD: Inked	CONTOURS BY	R.A. Youngblood-M.C. Webber	Oct. 1969
	CHECKED BY		
	HYDRO SUPPORT DATA BY		
SCALE: 1:10,000	CHECKED BY		
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	J. P. Battley	Feb-1970
6. APPLICATION OF FIELD EDIT DATA	BY	M. C. Webber	June 1970
	CHECKED BY	J. P. Battley	" "
7. COMPILATION SECTION REVIEW	BY	J. P. Battley	Oct. 1969
8. FINAL REVIEW	BY	J. P. Battley	June 1970
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY	J. P. Battley	Aug 1970
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	S. G. Stratton-Baker	Sept. 1970
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY		

ESSA FORM 76-36b
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S): "E" 6" Focal Length

TIDE STAGE REFERENCE
- ☐ PREDICTED TIDES
- ☐ REFERENCE STATION RECORDS
- ☐ TIDE CONTROLLED PHOTOGRAPHY

TYPES OF PHOTOGRAPHY LEGEND
- (C) COLOR X
- (P) PANCHROMATIC
- (I) INFRARED

TIME REFERENCE
- ZONE
- MERIDIAN
- ☐ STANDARD
- ☐ DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
68-E(C)-6726-6727 68-E(C)-6714 thru 6718	7-1-68		1:20,000	Inapplicable
1:10,000 ratio 69-E(C)-2298 thru 2302	9-1969		1:20,000	

REMARKS

2. SOURCE OF MEAN HIGH-WATER LINE:

Normal pool level, 540 ft. MSL located by office interpretation from color photography dated July 1, 1968, and Sept. 8, 1969.

VERIFIED - FIELD EDIT, MAR.-APRIL 1970

3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

4. CONTEMPORARY HYDROGRAPHIC SURVEYS *(List only those surveys that are sources for photogrammetric survey information.)*

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
No contem. survey	TP-00027	TP-00026	TP-00023 TP-00024

REMARKS

USCOMM-DC 46200-P70

ESSA FORM 76-36c
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

HISTORY OF FIELD OPERATIONS TP-00025

I. ☐ FIELD INSPECTION OPERATION ☒ FIELD EDIT OPERATION

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		R. B. Melby	March-April 1970
2. HORIZONTAL CONTROL	RECOVERED BY		
	ESTABLISHED BY	R. B. Melby	" "
	PRE-MARKED OR IDENTIFIED BY		
3. VERTICAL CONTROL	RECOVERED BY		
	ESTABLISHED BY		
	PRE-MARKED OR IDENTIFIED BY		
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED *(Triangulation Stations)* BY		
	LOCATED *(Field Methods)* BY		
	IDENTIFIED BY	L. L. Riggers	" "
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☐ NO INVESTIGATION — BY		
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	L. L. Riggers	" "
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY		

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS *(Clarification of details)*

69-E-2302 69-E-2301
69-E-2300

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

L. L. Riggers

PHOTO NUMBER	OBJECT NAME
	TUCANNON RIVER LT 34
69-E-2300	HUNTERS LT 35
69-E-2301	TEXAS LT 37
69-E-2301	TEXAS LT 38
69-E-2302	ALKALI FLAT CREEK LT 39
69-E-2302	RIPARIA LT 40

PHOTO NUMBER	OBJECT NAME
69-E-2301	TANK (LDMK)

5. GEOGRAPHIC NAMES: * ☒ REPORT ☐ NONE

6. BOUNDARY AND LIMITS: ☐ REPORT ☐ NONE

7. SUPPLEMENTAL MAPS AND PLANS

8. OTHER FIELD RECORDS *(Sketch books, etc.* **DO NOT** *list data submitted to the Geodesy Division)*

ESSA FORM 76-36C

USCOMM-DC 48200-P70

* submitted during 1968 field inspection

ESSA FORM 76-36d
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Shoreline, planimetry bathymetric contours and land contours	Sept. 1969	Advance Man. Forwarded to	April 1970	
Field Edit Applied	June 1970			

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
4 pages	CL-886	7-21-70	

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

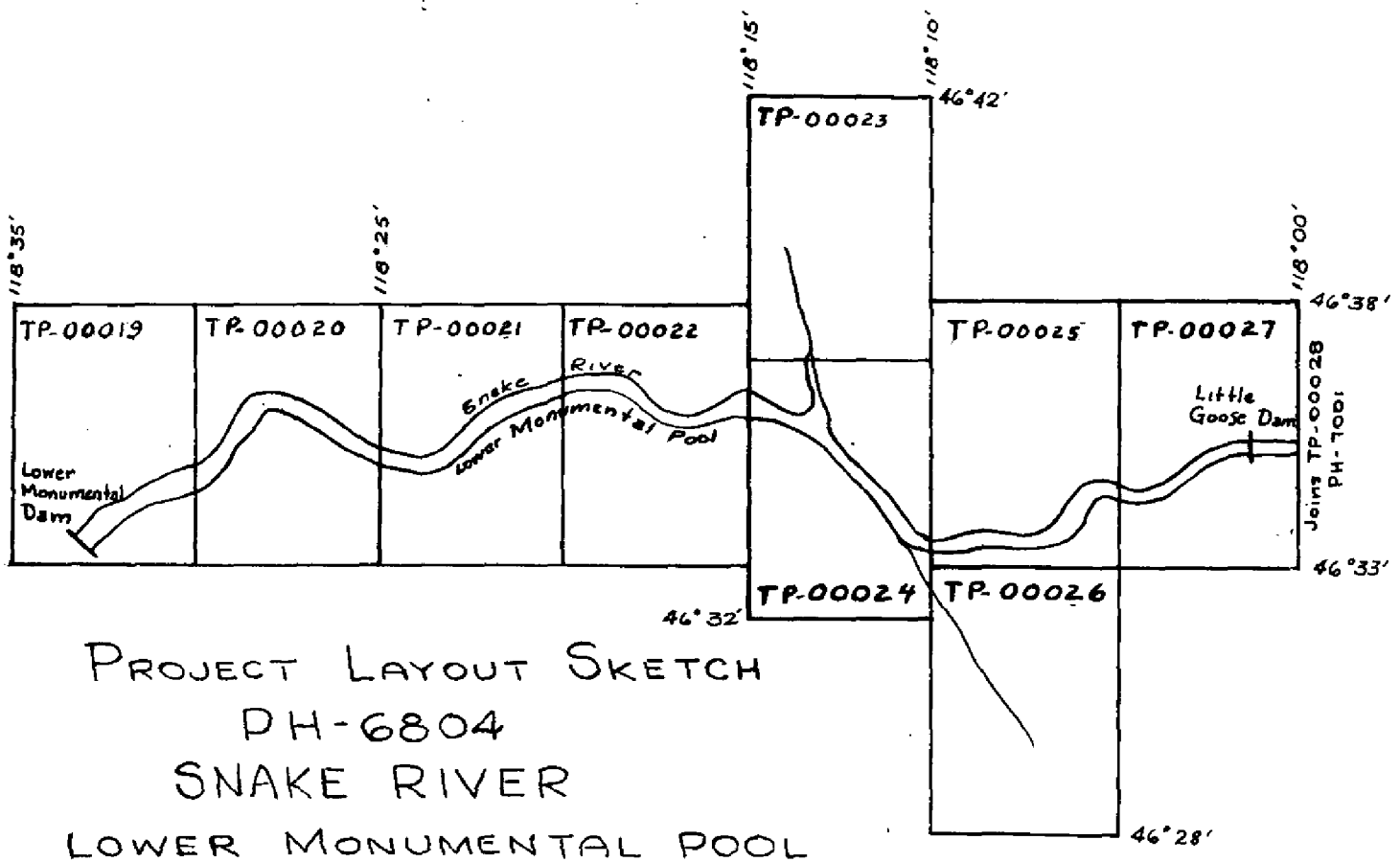
III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM C&GS 567 SUBMITTED BY FIELD PARTIES.
3. ☒ SOURCE DATA *(except for Geographic Names Report)* AS LISTED IN SECTION II, ESSA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:
4. ☒ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: Sept. 1970

IV. SURVEY REVISION *(This section shall be completed when a revised survey is registered.)*

	SURVEY NUMBER	JOB NUMBER	REMARKS
FIRST REVISION	TP - (2)	PH -	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
SECOND REVISION	SURVEY NUMBER TP - (3)	JOB NUMBER PH-	REMARKS
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD REVISION	SURVEY NUMBER TP - (4)	JOB NUMBER PH -	REMARKS
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	

USCOMM-DC 46200-P70



PROJECT LAYOUT SKETCH
PH-6804
SNAKE RIVER
LOWER MONUMENTAL POOL
WASHINGTON

Summary to Accompany
Descriptive Reports TP-00019
through TP-00027
PH-6804
June 1970

This project consists of nine chart topography manuscripts, covering the Lower Monumental Dam and Pool area on the Snake River, Washington. The manuscripts were compiled at a scale of 1:10,000 to provide the base for a new small-craft route chart, (683-SC), scale 1:20,000.

The Lower Monumental Pool was formed by impounding the water behind Lower Monumental Dam east to the Little Goose Dam.

Field operations prior to bridging included the premarking of horizontal control, selecting, photoidentifying and determining elevations of photogrammetric vertical control points, identifying and determining the elevation of features critical for charting and a geographic names investigation. This was completed in November 1968.

Bridging of the entire Pool area was completed in August 1969 by the analytical aerotriangulation method. 1:40,000 scale color diapositives were bridged and numerous points common to the 1:20,000 scale compilation photography were obtained to control these models.

Compilation was accomplished in the Washington Office in August-September 1969 utilizing 1:20,000 scale color photography taken July 1, 1968, prior to the flooding of the pool area. The normal pool level after flooding was established at 540 ft. above MSL. The river level for the area prior to flooding was approximately 440 ft. above MSL at the Lower Monumental Dam to 530' in the vicinity of Little Goose Dam. The area between the prescribed normal pool level and the prior river level was contoured on the B-8 stereoplotter at intervals compatible with required depth curves, (3',6',9',12',18', etc.) and were supplemented with spot elevations (soundings) to define shoals, gentle slopes and deep water. Rigid vertical and horizontal accuracy was maintained during compilation to comply with project instructions. Along with this bathemetry, the required chart compilation features were delineated above the 540 ft. normal pool level shoreline. This included the 600 ft. contour line for use by marine charts in correlating the compilation with existing maps.

Field edit was completed in April 1970 and encompassed the verification and/or location of aids to navigation and landmarks, a facility survey and verification of compiled features.

The application of field edit revisions and additions was completed in June 1970 for the entire project. Final review was also completed in June.

Advance copies prior to field edit had been supplied to the Small Craft Branch of the Marine Chart Division. Field edit corrections and/or additions were minimal and this afforded the Small Craft Branch more "lead time" to compile new route Chart 648-SC. Final copy will be sent to Marine Chart Division along with the facilities report.

A Registration Manuscript Copy will be registered in the Bureau Archives under their respective TP-numbers.

Submitted by,

Peter P. Battley Jr.

J. P. Battley, Jr.

Photogrammetric Plot Report
Job PH-6804
Snake River, Lower Monumental Pool
Washington

August 1969

21. Area Covered

This report covers the Snake River from the Lower Monumental Dam to the Little Goose Dam, consisting of nine (9) 1:10,000 scale sheets, TP-00019 thru TP-00027.

22. Method

Eight (8) strips were bridged using analytical aerotriangulation methods. Strips 1 and 2 were 1:40,000 scale color diapositives and strips 3 thru 8 were 1:20,000 scale color diapositives. Strips 1 and 2 were bridged using premarked control. The control does not appear on the 1:20,000 scale photographs as the photography was flown prior to premarking. Numerous tie points were located from the 1:40,000 scale bridge to control the 1:20,000 scale photography.

The attached sketch of the strips bridged shows the placement of triangulation used in the final strip adjustments. All bridge points are on Washington South Zone plane coördinates and converted to Mercator values.

23. Adequacy of Control

All horizontal control was premarked and was adequate to control the 1:40,000 scale bridge. The field party furnished elevations to vertically control each strip of 1:20,000 scale photographs and proved very adequate.

24. Photography

The definition and quality of the RC-8 "E" photography were good. No difficulty was encountered in the bridging of any strip.

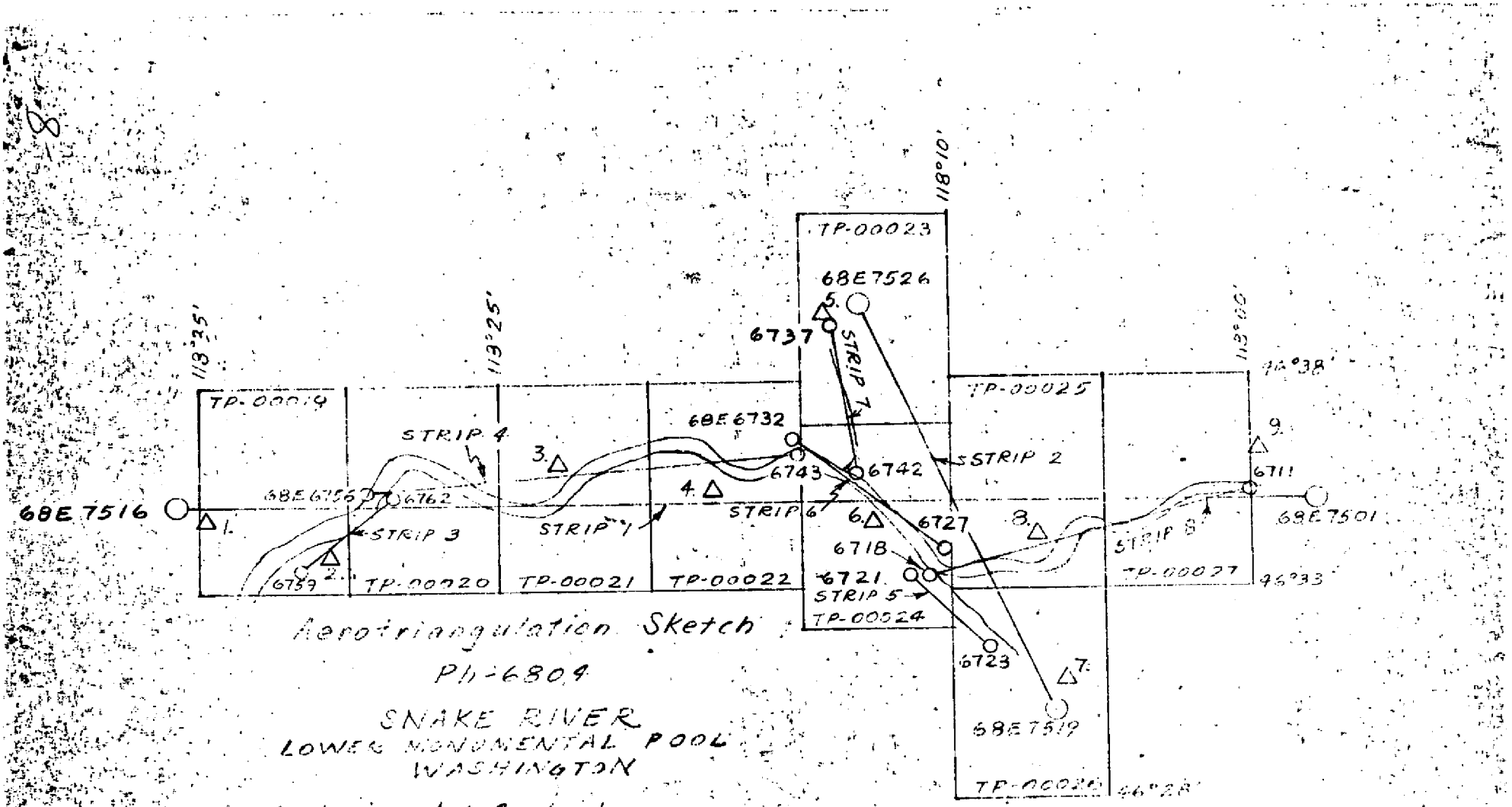
Respectfully submitted,

Irving I. Saperstein

I. I. Saperstein

Approved and forwarded,

Chief, Aerotriangulation Section



Aerotriangulation Sketch

PH-6809

SNAKE RIVER
LOWER MONUMENTAL POOL
WASHINGTON

△ Horizontal Control
○ 1:40,000 scale color photographs
○ 1:20,000 scale color photographs

1. HUNT, 1933
2. HEADER (USE) 1957
3. AYERS, 1946
4. PERRY, 1946
5. P.A.F. ALLS, 1968
6. TUCANON, 1946
7. S.R. BMZ 391 (USE) 1961
8. RIPARIA, 1946
9. SCHMIDT, 1946

COMPILATION REPORT
TP-00025

~~Refer to Descriptive Report No. TP-00019 for Field Inspection and Photogrammetric Plot Reports~~. all reports are included within this Descriptive Report

31. Delineation

TP-00025 is a 1:10,000 scale chart compilation manuscript.

Color photography, scale 1:20,000 taken July 1, 1968, was bridged and used for delineation. This photography was supplemented with 1:20,000 photography taken in Sept. 1969 after the Lower Monumental Pool was flooded. 1:10,000 ratio prints were compared with the inked manuscript and additions or revisions were made.

A cronaflex copy and ozalid copies were ordered for this manuscript for field edit use.

After field edit is applied 1/2 reductions will be made for chart compilation at 1:20,000 scale.

32. Control

All horizontal control was premarked and adequate in density and placement.

Vertical control was of prime importance for this project as the area contoured is to be used for bathymetry (depth curves, etc.)

Excellent vertical accuracy was achieved in the bridge from numerous field identified vertical points.

(See Photogrammetric Plot Report.)

33. Supplemental Data

None used in photogrammetric compilation.

See item 63 of the Review Report the C of E. Drawings were referred to during compilation

34. Contours and Drainage

Color photography at 1:20,000 scale was bridged by analytic methods and used in the B-8 stereoplotter for contouring. This photography taken in July 1968 before the pool area was flooded is of good quality and contours within the required accuracy (± 2 ft.) were obtained.

Contours were drawn at prescribed intervals from the old river shoreline to 537 ft. These intervals were: 3 ft. from 540 ft. shoreline to 534 ft. contour (6' depth curve), 6 ft. intervals from 534 ft. to 510 ft. (30' depth curve) and 10 ft. intervals to the old river level.

In areas of congestion the 534 ft. and the 522 ft. (6' and 18') depth curves were given preference and contoured without feathering.

The 540 ft. elevation was contoured as the shoreline at normal pool level.

35. Shoreline and Alongshore Details

The shoreline was delineated as stated in Paragraph 34. Color photography of Sept. 1969 taken after the Lower Monumental Pool was flooded was ratioed and compared with the contoured shoreline. Minor differences were noted and revised.

36. Offshore Detail

No comment.

37. Landmarks and Aids

U. S. Coast Guard Civil Engineering blueprints were furnished for location of Aids to Navigation. This was used to help locate the Aids on the 1969 ratioed photographs. A few of the Aids could not be located and will have to be located during field edit.

Landmarks are to be located during field edit.

38. Control for Future Surveys

None

39. Junctions

Junctions were made to the south with TP-00026, to the west with TP-00024 and to the east with TP-00027 and are in agreement.

40. Horizontal and Vertical Accuracy

Refer to Paragraph 23 of Photogrammetric Plot Report and Paragraph 32 of this report.

41. thru 45.

Inapplicable

46. Comparison with Existing Maps

Comparison has been made with USGS quadrangle, Starbuck, Washington, scale 1:62,500 dated 1950, contour interval 40 ft.

Compilation instructions state that all detail and the 600 ft. and 700 ft. contours that have been changed above the 540 ft. pool level should tie into the existing quadrangles. Areas of change were compiled and this tie made. Comparison was made with C. of E. Drawings Scale 1:6,000 dated Feb 1963

47. Comparison with Nautical Charts

No chart exists in this area. This is a new chart compilation for Chart No. 683-SC.

Respectfully submitted,

John C. Richter

John C. Richter
Cartographer

Approved and forwarded,

K. N. Maki

K. N. Maki
Chief, Compilation Section

June 24, 1970

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6804 (Washington)
TP-00025

Alkali Flat Creek ✓
Camas Prairie Railroad ✓
Choke Cherry Canyon ✓
Marmes Rockshelter *
Riparia ✓
Union Pacific Railroad ✓

Approved by:
A. J. Wraight
A. J. Wraight
Chief Geographer

Prepared by:
Frank W. Pickett
Frank W. Pickett
Cartographic Technician

* Name appears on TP-00024

FIELD EDIT REPORT
Chart Topography
Lower Monumental Pool
Snake River, Washington
Map Manuscripts TP-00019 through TP-00027

This report covers the portion of the Snake River impounded by the Lower Monumental Dam, and entirely within the State of Washington.

The entire shoreline was inspected by vehicle or small boat. The shoreline and alongshore features were compared with the field edit copies of the map manuscripts (discrepancy prints) and/or the field edit color photographs.

The field edit copies (discrepancy prints) of the map manuscripts were used as the index for the field corrections and the numbers of the photographs used for such corrections appear on the discrepancy prints.

Adequacy of Compilation

The extent and accuracy of the maps appear to be reasonably complete, considering the compilation was without the benefit of field inspection.

As the river passes through a definite gorge, cliffs and bluffs are in evidence throughout the project area. The most salient cliffs were indicated as features of landmark value.

There are so few buildings in the area, that nearly every shoreline cultural feature is of landmark value. Along the railroad are located two small communities, Ayer and Riparia. They are the residences of the railroad maintenance and service personnel.

Several recreation areas are found along the shoreline and are in various stages of development. Usually they consist of a surfaced launching ramp, a float and comfort facilities.

All fixed aids to navigation were field checked and photo identified except Tucannon River Light 34, which was located by traverse methods, due to its location on the north slope of a cliff.

All landmarks were investigated. All landmarks, recommended for charting, have been listed on form 567.

Purple ink was used to indicate corrections on the discrepancy prints. Red tempera ink was used for the annotations on the field edit photographs. Green ink was used to indicate deletions.

Rocks and shoals were investigated. The elevations of the tops of these features were determined in the field.

All entries for aids to navigation and landmarks for charts have been hand lettered in ink on Form 567. The smooth copies of the Form 567 can be prepared and submitted to the appropriate sections after the positions of the aids and landmarks have been finalized by the compilation section.

Geographic Names are the subject of a separate report.

A small craft chart facility investigation was completed in the field, concurrent with the field edit. Entries were made on the discrepancy prints.

Sheet TP-00019

Lower Monumental Dam and surfaced ramp are found on this sheet.

Sheet TP-00020

All fixed aids to navigation were investigated and photo-identified. A secondary, dirt road of landmark value is found near the east edge of the sheet.

Sheet TP-00021

A landmark for charts in the form of a tank is found on this sheet, also the railroad community of Ayer.

Sheet TP-00022

Heights of rocks and shoreline corrections were made on this sheet.

Sheet TP-00023

No field edit entries.

Sheet TP-00024

The highway bridge over the Snake River near the mouth of the Palouse River has been completed. It is a fixed span structure. The cofferdam that was constructed around the Marmes Rockshelter failed to save the rockshelter due to uncontrolled seepage. At present a pond is formed in the rockshelter area behind the cofferdam. Two overhead cable crossings and a submerged pipeline crossing are found on this sheet.

Sheet TP-00025

The railroad community of Riparia is found on this sheet. The Project Engineer, Seattle District, Corps of Engineers reported the abandoned piers of the old Riparia railroad bridge were removed to the depths (elevations) that appear on photograph 69E 2302. The masonry bridge abutments are scheduled to remain in place. A landmark in the form of an elevated water tank is found at Riparia.

Sheet TP-00026

At Powers a grain elevator and storage tank was compiled as tanks only.

Sheet TP-00027

Corrections of the area adjacent to the Little Goose Dam including the northsection (earth fill portion) of the dam, road relocation and an overhead power line should be applied to the manuscript from recent photography that reflects the above changes.

Respectfully Submitted,

Robert B. Melby

Robert B. Melby
Chief, Field Party, PMC

Review Report
TP-00025
PH-6804
June 1970

61. General Statement

See summary in Preface.

62. Comparison with Registered Topographic Surveys

None

63. Comparison with Maps of Other Agencies

Comparison was made with 1:62,500 scale quadrangles, HAAS, Washington, dated 1950 and Starbuck, Washington, dated 1948. These maps were used to compare planimetric features adjacent to the river, as a base for a geographic names verification and to assure correlation between the compiled 600 ft. contour, (the first index contour above the shoreline), and the G. S. topography. Comparison was also made with Corps of Engineers Reservoir Maps compiled in 1957. These maps were used to locate the approximate position of lights for subsequent photoidentification.

64. Comparison with Contemporary Hydrographic Surveys

None - this is a newly formed pool area of the Snake River.

65. Comparison with Nautical Charts

None

66. Adequacy of Results and Future Surveys

This survey complied with project instructions and excellent results were realized in maintaining the required vertical accuracy for the compiled contours and spot elevations to be used as hydrography. The survey meets the National Standards of Accuracy.

67. Geographic Names

A thorough geographic names verification was made by the 1968 field inspection party and approved by the Geographic Names Branch. A names list is included in this report.

Reviewed by,

Peter P. Battley Jr

Approved by,

Chief, Photogrammetric Branch

Chief, Photogrammetry Division

FORM C&GS-164
(4-68)
USCOMM-DC
50318-P68

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- P-00025 PROJECT NO. PH-6804 SCALE OF MAP 1:10,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	X LATITUDE OR Y COORDINATE / LONGITUDE OR X COORDINATE Y	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 Ft. = 3048006 meter) FORWARD	(BACK)
RIPARIA, 1946	Pg. 227	NA 1927	2,598,596.42		
			459,960.58		

COMPUTED BY I. I. Saperstein DATE 8/30/68 CHECKED BY H. P. Eichert DATE 8/31/68

C&GS FORM 567
(11-64)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

(CL-886) I

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

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

Seattle, Washington 7 April 1970

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 Lyle L. Riggers

R. B. Melby
Chief of Party

STATE Washington

CHARTING NAME	DESCRIPTION	Light List No.	POSITION LATITUDE* ° ′	″ D.M. METERS	LONGITUDE* ° ′	″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	RADIOBEACON CHART	RESURVEY CHART	OFFSHORE CHART	CHARTS AFFECTED
	PAUL Lt 4	1968.29	46 34	367.5	118 30	757.5	N.A. 1927	Air Photo TP00019	3/26/70				
	RUXBY BEND Lt 6	1968.33	46 34	1244.0	118 29	35.0	"	" TP00020	3/26/70				
	CRUMBLE Lt 7	1968.35	46 35	307.5	118 29	110.0	"	" "	"				
	HONKER Lt 9	1968.39	46 35	1602.0	118 28	767.5	"	" "	"				
	STAT Lt 10	1968.41	46 35	1400.0	119 27	1182.0	"	" "	"				
	MALLARD Lt 11	1968.43	46 36	123.0	118 27	954.0	"	" "	"				
	VEER Lt 13	1968.45	46 35	260.0	118 25	12.5	"	" "	"				
	RAVINE Lt 14	1968.47	46 34	1471.6	118 24	1050.5	"	" TP00021	"				
	AYER Lt 16	1968.49	46 34	1215.0	118 23	630.5	"	" "	"				
	AYER Lt 17	1968.51	46 35	73.0	118 23	580.0	"	"	"				
	COURT Lt 18	1968.53	46 34	1354.5	118 22	1165	"	"	"				
	PALOUSE BLUFF Lt 19	1968.55	46 35	1452.5	118 22	164.0	"	"	"				
	CHEW Lt 20	1968.57	46 36	225	118 19	1140	"	" TP00022	"				
	DAVIN Lt 21	1968.59	46 36	978.5	118 18	748.5	"	" "	"				

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. 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.

* TABULATE SECONDS AND METERS

USCOMM-DC 56234-P61

C&GS FORM 567
(11-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

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

Seattle, Washington   7 April 1970

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 Lyla L. Riggers

R. B. Melby
Chief of Party.

STATE: Washington

CHARTING NAME	DESCRIPTION	Light LIST NO.	LATITUDE ° '	LATITUDE " D.M. METERS	LONGITUDE ° '	LONGITUDE " D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	COASTAL CHART	OFFSHORE CHART	CHARTS AFFECTED
	PERRY Lt 22	1968.61	46 35	1731.5	118 17	1086.0	N.A. 1927	Air Photo TP00022					
	PERRY Lt 24	1968.63	46 35	870.0	118 16	933.5	"	"					
	JOHN Lt 25	1968.65	46 35	1585.0	118 16	43.0	"	"					
	STEAMBOAT BEND Lt 27	1968.67	46 36	818.7	118 14	1062.7	"	TP00024					
	STEAMBOAT BEND Lt 28	1968.69	46 35	11.0 1032.8	118 14	796.5	"	"					
	PALOUSE RIVER Lt 29	1968.71	46 35	17[illegible]	118 12	344.4	"	"					
	TUCANNON Lt 30	1968.73	46 34	626.4	118 11	861.9	"	"					
	TUCANNON RIVER Lt 32	1968.75	46 33	970.8	118 10	864.8	"	"					
	TUCANNON RIVER Lt 34	1968.77	46 33	15,480 478.0	118 09	54.617 1163.5	"	Triang. TP00025					
	HUNTERS Lt 35	1968.79	46 33	1095.0	118 08	157.5	"	Air Photo TP00025					
	TEXAS Lt 37	1968.81	46 33	1137.5	118 06	942.5	"	"					
	TEXAS Lt 38	1968.83	46 33	814.0	118 06	640.[illegible]	"	"					
	ALKALI FLAT CREEK Lt 39	1968.85	46 34	985.0	118 05	1047.0	"	"					
	RIPARIA Lt 40	1968.87	46 34	786.0	118 05	418.0	"	"					

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. 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 consid[illegible] for the charts of the area and not by individual field survey sheets. In[illegible]ation under each column heading should be given.

● TABUL[illegible] SECONDS AND METERS

USCOMM[illegible]15234-P61

CAGS FORM 567
(11-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

III

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

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

Seattle, Washington 7 April 1970

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 Lyle L. Riggers

R. B. Melby
Chief of Party

STATE Washington

CHARTING NAME	DESCRIPTION	Light Signal Name List No	POSITION LATITUDE* ° ′	″ D.R. METERS	LONGITUDE* ° ′	″ D.R. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	RESORT CHART	OFFSHORE CHART	CHARTS AFFECTED
	McGUIRE RNG RR Lt	1968.91	46 34	752.7	118 04	871.7	N.A. 1927	Air Photo TP00027	3/25/70				
	McGUIRE RNG FRT Lt	1968.89	46 34	782.	118 04	619.	"	"	"				
	McGUIRE Lt 41	1968.93	46 34	1020.7	118 04	143.6	"	"	"				
	McGUIRE Lt 43	1968.95	46 34	1506.3	118 02	1270	"	"	"				

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* TABULATE SECONDS AND METERS

USCOMM-DC 14284-P61

CGS FORM 567
(1-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

NONFLOATING ~~AIDS OR~~ LANDMARKS FOR CHARTS

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

Seattle, Washington, 7 April, 19 70

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The positions given have been checked after listing by Lyle L. Riggers

R. B. Melby
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	RESCUE CHART	OFFSHORE CHART	CHARTS AFFECTED
TANK	Tank Ht = 25 (235)*		46 36.0	737.0	118 21.4	1665.0	N.A. 1927	Air Photo TP-00021	3/31/70				
TANK (Elev)	Tank, steel, elevated Ht = 56 (122)*		46 34.7	1365.0	118 05.5	618.0	"	TP-00025	3/31/70				
	* referenced to the normal pool level (540' MSL)												

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TABULATE SECONDS AND METERS