TP-00835

TP-00835

NOAA FORM 76-35
(3-76)

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

DESCRIPTIVE REPORT

Map No.	*Edition No.*
TP-00835	1

Job No.
CM-7408

Map Classification Final
Field Edited Map

Type of Survey
CHART TOPOGRAPHY

LOCALITY

State
Idaho

General Locality
Snake River, Lower Granite Dam and Reservoir

Locality
~~Clearwater River~~

1974 TO 1977

REGISTRY IN ARCHIVES

DATE

*U.S. GOVERNMENT PRINTING OFFICE:1976-669-248

NOAA FORM 76-36A (3-72) — U. S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY: [X] ORIGINAL [ ] RESURVEY [ ] REVISED

SURVEY TP- 00835

MAP EDITION NO. (1)

MAP CLASS Final

JOB PH- CM-7408

PHOTOGRAMMETRIC OFFICE: Coastal Mapping Division, Norfolk, VA

OFFICER-IN-CHARGE: Jeffrey G. Carlen

LAST PRECEEDING MAP EDITION

TYPE OF SURVEY: [ ] ORIGINAL [ ] RESURVEY [ ] REVISED

JOB PH-

MAP CLASS

SURVEY DATES: 19__ TO 19__

I. INSTRUCTIONS DATED

1. OFFICE		2. FIELD
Aerotriangulation	9/23/74	June 5, 1974
Compilation	1/23/75	

II. DATUMS

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

2. VERTICAL: [ ] MEAN HIGH-WATER [ ] MEAN LOW-WATER [ ] MEAN LOWER LOW-WATER [ ] MEAN SEA LEVEL — OTHER (Specify): National Geodetic Vertical Datum 1929

3. MAP PROJECTION: Mercator: Central parallel 46°25'30"

4. GRID(S)

STATE	ZONE
Washington	South
Idaho	West

5. SCALE: 1:10,000 at central parallel

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION	BY	M. McGinley	1/31/75
METHOD: Wild STK-1	LANDMARKS AND AIDS BY	M. McGinley	1/31/75
2. CONTROL AND BRIDGE POINTS	PLOTTED BY	R. Robertson	1/5/75
METHOD: Calcomp.	CHECKED BY	R. Robertson	1/5/75
3. STEREOSCOPIC INSTRUMENT COMPILATION	PLANIMETRY BY	L. Neterer, Jr.	April 1975
	CHECKED BY	Shands, Blood, Rauck	April 1975
INSTRUMENT: Wild B-8	CONTOURS BY	G. Morris	Aug 1976
SCALE: 1:5,000	CHECKED BY	J. Byrd	Aug 1976
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	D. Butler	Sept 1976
	CHECKED BY	J. Byrd	10/21/76
METHOD: Smooth drafted	CONTOURS BY	D. Butler	Sept 1976
	CHECKED BY	J. Byrd	Aug 1976
	HYDRO SUPPORT DATA BY	NA	
SCALE: 1:10,000 at central parallel	CHECKED BY	NA	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	J. Byrd	Aug 1976
6. APPLICATION OF FIELD EDIT DATA	BY	J. Roderick	Nov 1977
	CHECKED BY	L. O. Neterer, Jr.	Dec 1977
7. COMPILATION SECTION REVIEW	BY	L. O. Neterer, Jr.	Dec 1977
8. FINAL REVIEW	BY	A. L. Shands	Jun 1979
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY	A. L. Shands	Jul 1979
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	E. L. Rolle	Aug 1979
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY	E. L. DAUGHERTY	NOV 1979

NOAA FORM 76-36A — SUPERSEDES FORM C&GS 181 SERIES

* U.S. G.P.O. 1972-769382/582 REG.#6

NOAA FORM 76-36B
(3-72)

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

TP-00835

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S): Wild RC-8 "E" and "W"

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

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

TIME REFERENCE
ZONE: Pacific — ☒ STANDARD
MERIDIAN: 120th — ☐ DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
74E(C) 5930 - 5934	6/13/74	13:48	1:10,000	NOTE: Tides are not applicable to this project.
74E(C) 5884 - 5889	6/13/74	13:10	1:10,000	
W75-2-238-W75-2-242	Feb 15, 1975		1:12,000	
W75-2-243-W75-2-248	Feb 15, 1975		1:12,000	
*W75-6(P) 152	Apr 21, 1975		1:12,000	
*W75-6(P) 155-158	**Apr 21, 1975		1:12,000	
*W75-6(P) 161-162	Apr 21, 1975		1:12,000	

REMARKS: ** Corps of Engineers photography

*Used for application of field edit items only.

2. SOURCE OF MEAN HIGH-WATER LINE:

The source of the pool shoreline (elevation 738 ft.) is the above listed photography.

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

Not applicable to this project.

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 Survey	No Survey	No Survey	TP-00833 & 34

REMARKS

NOAA FORM 76-36C
(3-72)

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

TP- 00835

HISTORY OF FIELD OPERATIONS

I. [X] FIELD INSPECTION OPERATION [ ] FIELD EDIT OPERATION

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		R. Melby	Sep-Dec '74
2. HORIZONTAL CONTROL	RECOVERED BY	R. Melby	June 1974
	ESTABLISHED BY	None	
	PRE-MARKED OR IDENTIFIED BY	L. Riggers	June 1974
3. VERTICAL CONTROL	RECOVERED BY	R. Melby	Sep-Dec '74
	ESTABLISHED BY	R. Melby	Sep-Dec '74
	PRE-MARKED OR IDENTIFIED BY	R. Melby	Sep-Dec '74
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED *(Triangulation Stations)* BY	None	
	LOCATED *(Field Methods)* BY	None	
	IDENTIFIED BY	None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION: [X] COMPLETE [ ] SPECIFIC NAMES ONLY [ ] NO INVESTIGATION — BY	R. Melby	Jan 1975
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	NA	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME
74E(C)5701	T.M. 1959

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION DESIGNATION
74E(C)5888	V35-01, V35-02, V35-03
74E(C)5887	V35-04, V35-05
74E(C)5885	V35-06
74E(C)5930	V35-08
74E(C)5931	V35-07, V35-09, V35-10
74E(C)5934	V35-11, V35-12

3. PHOTO NUMBERS *(Clarification of details)*

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: [X] REPORT [ ] NONE

6. BOUNDARY AND LIMITS: [ ] REPORT [X] NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

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

1 Form 152

NOAA FORM 76-36C
(3-72)

☆U.S. Government Printing Office: 1975 – 665-661/1110, Region No. 6

NOAA FORM 76-36C
(3-72)

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

TP-00835

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION ☒ FIELD EDIT OPERATION

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		R. Melby	Sept 1977
2. HORIZONTAL CONTROL	RECOVERED BY	R. Melby	Sept 1977
	ESTABLISHED BY	R. Melby	Sept 1977
	PRE-MARKED OR IDENTIFIED BY	None	
3. VERTICAL CONTROL	RECOVERED BY	None	
	ESTABLISHED BY	None	
	PRE-MARKED OR IDENTIFIED BY	None	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED *(Triangulation Stations)* BY	R. Melby	Sept 1977
	LOCATED *(Field Methods)* BY	None	
	IDENTIFIED BY	None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION — BY		
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	R. Melby	Sept 1977
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	None	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED: None

2. VERTICAL CONTROL IDENTIFIED: None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS *(Clarification of details)*

W75-6(P)152., 75-6(P)155-158., W75-6(P) 161-162

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE

6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

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

1 Field edit ozalid
1 Field edit report
2 NOAA Forms 76-165
1 Form 76-40
Geographic Names Report
2 NOAA Form 76-81

☆U.S. Government Printing Office: 1975 – 665-661/1110, Region No. 6

NOAA FORM 76-36D
(3-72)

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

TP- 00835

RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete pending field edit	Sept 1976	Class III manuscript	4/4/77	Field edit 8/4/77
Field edit applied. Compilation complete	Nov 1977	Class I manuscript	2/2/78	
Final Review	June 1979	Final	Jul 1979	

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1		2/3/78	2 Landmarks for charts

2. [X] REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: February 3, 1978
3. [ ] REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

III. FEDERAL RECORDS CENTER DATA

1. [XX] BRIDGING PHOTOGRAPHS; [X] DUPLICATE BRIDGING REPORT; [XX] COMPUTER READOUTS.
2. [XX] CONTROL STATION IDENTIFICATION CARDS; [X] FORM NOS76-40 SUBMITTED BY FIELD PARTIES.
3. [XX] SOURCE DATA *(except for Geographic Names Report)* AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:

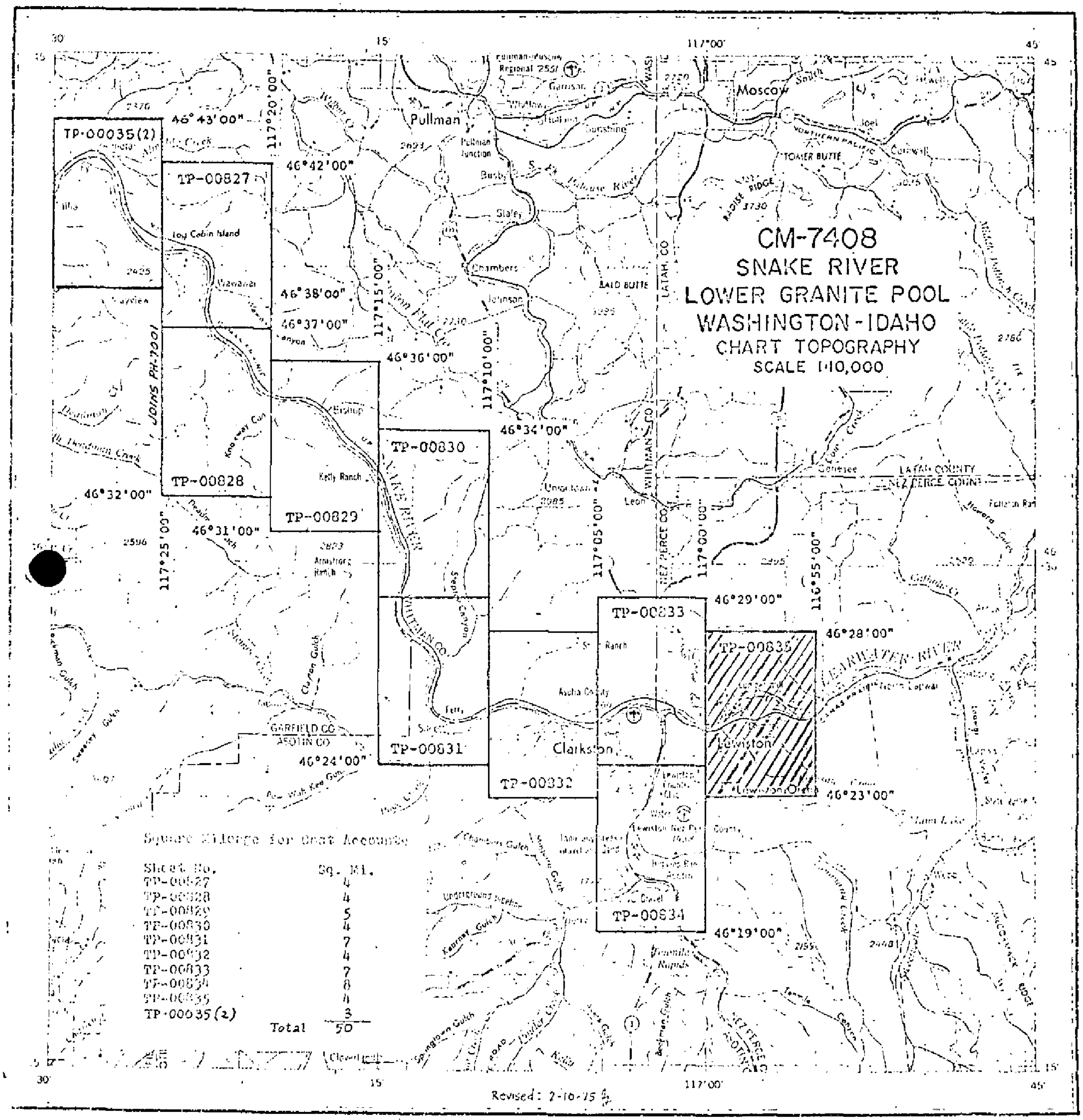
4. [ ] DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

IV. SURVEY EDITIONS *(This section shall be completed each time a new map edition is registered)*

	SURVEY NUMBER	JOB NUMBER	TYPE OF SURVEY
SECOND EDITION	TP - _____ (2)	PH - _____	[ ] REVISED [ ] RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS [ ] II. [ ] III. [ ] IV. [ ] V. [ ] FINAL
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH- _____	TYPE OF SURVEY [ ] REVISED [ ] RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS [ ] II. [ ] III. [ ] IV. [ ] V. [ ] FINAL
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY [ ] REVISED [ ] RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS [ ] II. [ ] III. [ ] IV. [ ] V. [ ] FINAL

NOAA FORM 76-36D

☆U.S. Government Printing Office: 1975 – 665-661/1108, Region No. 6



Square Mileage for Chart Accounts

Sheet No.	Sq. Mi.
TP-00827	4
TP-00828	4
TP-00829	5
TP-00830	4
TP-00831	7
TP-00832	4
TP-00833	7
TP-00834	8
TP-00835	4
TP-00035(2)	3
Total	50

SUMMARY TO ACCOMPANY MAPS TP-00035(2)
AND
TP-00827 THROUGH TP-00835

This summary covers all of Project CM-7408 which consist of ten chart topography maps. They cover the area of the Lower Granite Dam Reservior from the Lower Granite Dam southeastward to the town of Lewiston, Idaho, and from there south to just below Asotin, Washington. The area of the reservoir is bounded by a steep walled basaltic canyon, except at the southern end.

Maps in this project are to serve as the basis for construction of a small craft chart of the area. The maps are all ruled on the Mercator projection system. Maps TP-00827 through TP-00835 have lat. 46°25'30" as the central parallel and Map TP-00035(2) has lat. 46°38'00" as its central parallel. As can be expected, there is a significant difference in the scales of Maps TP-00035(2) and TP-00827, which joins it. See diagram, page 5 of this Descriptive Report.

Map TP-00035 (2) was added to this project just prior to the bridging function. All bridging was done at the Washington Science Center using the STK-1.

The photographs used for compilation were flown on three separate occasions. The first was taken with color film by the National Ocean Survey in June, 1974. This was followed with two sets taken by the Corp of Engineers using black and white film in February, 1975 and April, 1975. The April photographs were flown after the reservoir was flooded.

A bridge was run only on the color photography. Control for setting models of the black and white photography was obtained by identifying points common to that photograhy from the B-8 models of the color photographs.

All maps were compiled at the Atlantic Marine Center using the B-8 stereoplotter and graphic methods. The B-8 stereoplotter was used to obtain all elevations and contours, as well as the bulk of the planimetric features. Some map features, recommeded for charting by the field editor, were identified on the 1975 U.S. Corps of Engineers photography. These features were applied to the map bases using graphic methods. In areas where control was sparse, the field edited map features were labeled (PA) for position approximate. Field edit was done in the Fall of 1977. All field edit items were applied to the maps at the Atlantic Marine Center.

All maps were final reviewed at the Atlantic Marine Center during the Spring of 1979. The original base maps and all applicable data was forwarded to the Washington Science Center for reproduction and final registration.

FIELD INSPECTION REPORT

Project CM-7408

Map Manuscripts T-00827 through TP-00835

September - December 1974

FIELD INSPECTION REPORT

Project CM-7408

Map Manuscripts T-00827 through TP-00835

September - December 1974

General

The area contained in this report commences at the vicinity of the Lower Granite Dam, on the Snake River and upstream along the Snake River to the vicinity of the town of Asotin, and upstream along the Clearwater River, from its confluence with the Snake River to a point about 5 miles upstream.

Except in the area of the cities of Lewiston and Clarkston, the rivers flow through steep walled, basaltic canyons.

The Camas Prairie Railroad serves the area along the Snake River from the Lower Granite Dam to the city of Lewiston, Idaho, then along the south shore of the Clearwater River. There is little industry along the rivers, except in the Lewiston-Clarkston area.

Horizontal Control

1. Four supplemental control stations were established by the field party.

2. All horizontal control stations required by the Project Instructions for aero-triangulation were recovered and paneled for aerial photography. Control Station Identification Form 152 were submitted to the Rockville, Maryland, office on June 19, 1974.

Vertical Control

All bench marks necessary to establish the required photo-elevation points were recovered and NOAA Form 76-89 will be submitted for each mark searched for.

Critical Features

The pool area was inspected for critical features and possible obstructions to navigation. At the time the field party was determining the photo elevations, Corps of Engineers contractors were removing possible rocks, knobs, etc., and "dressing"slopes. Dredging and quarrying were in progress in the bottom of the Clearwater River on the downstream side of the Lewiston-North Lewiston Highway Bridge (see photo 74E 5921). Shoreline changes were in progress from Clarkston to Asotin on the Snake River, also between Clarkston and the mouth of Alpowa Creek. The Corps of Engineers, Walla Walla

District should be consulted as to the extent and profiling of the changes. Two contractors bridges, one upstream of the Lower Granite Dam and one downstream of the railroad bridge over the Clearwater River, were being removed. A highway bridge over the Snake River is under construction (see photo 74E 5877).

Leveling

The elevations of the preselected photo-elevation points were determined by trigonometric leveling, utilizing the Wild T-1 and T-2 theodolites. Where the terrain or distances involved were not conducive to trig-leveling with the theodolite and stadio rod, the distances were measured with a RANGER III, Laser, distance measuring instrument. Two distances to each vertical point were observed, and non-reciprocal vertical angles were measured with a Wild T-2 theodolite, 2 D/R with a 10-second rejection limit. The distances were recorded in the field record book in meters to 3 decimal places. Pressure altitude, temperature, instrument and mirror constants were dialed into the RANGER III's system. This, in effect, is a closed loop observation, but the foresights and backsights were unbalanced. Therefore, Form 29D, Computations of Elevations for Non-Reciprocal Observations, was used; the difference in elevations of the long lines and the RANGER III distances were treated as two foresights.

The use of the RANGER III allowed the packing unit to carry only a retrodirective prism, a radio, telescoping tripod, photos, etc., as most of the photo-elevation points were on the near vertical slopes of the canyon walls, requiring back-packing up the steep slopes and bluffs to reach the preselected points. Otherwise, it would have required backpacking a tellurometer unit. The backpacking was a rigorous experience, but only the time factor in climbing slowed the field progress. The weather was favorable, the majority of the time cool and clear.

Bottom Characteristics

Bottom characteristics were indicated on the field photographs. Most of the river bottom is either rocky or boulder/stone/gravel sediments.

Photography

The photographs furnished the field unit were of good quality as to resolution and contrast.

Geographic Names

Geographic names will be the subject of a separate report.

Field Edit

Field edit will be the subject of a separate report at a later date, after the field edit has been accomplished.

7c

Aids to Navigation

At the time the photo party was determining the photo-vertical points, employees of the Coast Guard were observed erecting the pedestals and towers for fixed aids to navigation. None of the images of the aids appear on the existing field photography.

RECOMMENDATIONS

It is recommended during the 1975 field season that the pool area be rephotographed to correct the shoreline changes and to permit the location of the aids to navigation by photogrammetric methods if so desired.

Respectfully submitted,

Robt. B. Melby 1/9/75

Robert B. Melby, CPM103

cc: CPM1

PHOTOGRAMMETRIC PLOT REPORT
Job CM-7408
Snake River
Lower Granite Pool
Washington-Idaho
January 1975

21. Area Covered

This project covers the Snake River from Lower Granite Dam to just south of Asotin, Idaho, and a portion of the Clearwater River to just east of Lewiston, Idaho. Included are ten T-sheets (TP-00827 thru TP-00835 and TP-00035). T-sheet TP-00035 was generated at the request of the Rockville Review Section.

Sheets TP-00827 thru TP-00835 were plotted with 1:10,000-scale Mercator projections - central parallel 46°25'30"N. Sheet TP-00035 was plotted with 1:10,000-scale Mercator projections-central parallel 46°38'00"N. All sheets have the Washington State Grid (south zone) intersections plotted at 5,000-foot intervals. Sheets TP-00832 thru TP-00835 also have the Idaho State Grid (west zone) intersections plotted at 5,000-foot intervals.

22. Method

A total of twenty-one strips of color photography were bridged on the Wild STK-1 in order to obtain pass-point positions and elevations to be used during compilation. Three strips of 1:30,000-scale photography (strips 1,2, and 3) were bridged in order to obtain horizontal tie point positions for use in adjusting the other eighteen strips of 1:10,000-scale photography (strips 4 thru 21).

Strip 1 was adjusted on five field-identified triangulation stations and sixteen vertical points with six horizontal tie points and eight vertical points as checks. Strip 2 was adjusted on four field-identified triangulation stations and ten vertical points with one additional triangulation station and eight horizontal tie points as checks. Strip 3 was adjusted on three field-identified triangulation stations and seven vertical points with seven horizontal tie points as checks. Strip 4 was adjusted on four horizontal tie points and eight field-identified vertical points with four horizontal and one vertical tie point as checks. Strip 5 was adjusted on three horizontal tie points and eight field-identified vertical points with seven horizontal and four vertical tie points as checks. Strip 6 was adjusted on four horizontal tie points and twelve field-identified vertical points with eleven horizontal and six vertical points as checks. Strip 7 was adjusted on four horizontal tie points and nine field-identified vertical points with twelve horizontal and six vertical tie points as checks. Strip 8 was adjusted on five horizontal

tie points and eight field-identified vertical points with ten horizontal and five vertical tie points as checks. Strip 9 was adjusted on four horizontal tie points and ten field-identified vertical points with eleven horizontal and five vertical tie points as checks. Strip 10 was adjusted on three horizontal tie points and seven field-identified vertical points with nine horizontal and four vertical tie points as checks. Strip 11 was adjusted on five horizontal tie points and six field-identified vertical points with seven horizontal and three vertical tie points as checks. Strip 12 was adjusted on three horizontal tie points; six field-identified vertical points; and one vertical tie point with one additional field-identified vertical point; nine horizontal and five vertical tie points as checks. Strip 13 was adjusted on one field-identified triangulation station; five horizontal tie points; and nine field-identified vertical points with three additional field-identified vertical points; nine horizontal and three vertical tie points as checks. Strip 14 was adjusted on one field-identified triangulation station; three horizontal tie points; seven field-identified vertical points; and one vertical tie point with twelve horizontal and six vertical tie points as checks. Strip 15 was adjusted on seven horizontal tie points; seven field-identified vertical points; and one vertical tie point with eight horizontal and seven vertical tie points as checks. Strip 16 was adjusted on three horizontal tie points and eight field-identified vertical points with one additional field-identified triangulation station; twelve horizontal and eight vertical tie points as checks. Strip 17 was adjusted on three horizontal tie points; seven field-identified vertical points; and one vertical tie point with eight horizontal tie points; one additional field-identified vertical point; and four vertical tie points as checks. Strip 18 was adjusted on three horizontal tie points and seven field-identified vertical points with five horizontal and two vertical tie points as checks. Strip 19 was adjusted on five horizontal tie points and ten field-identified vertical points with eight horizontal tie points; one additional field-identified vertical point; and three vertical tie points as checks. Strip 20 was adjusted on three horizontal tie points and six field-identified vertical points with seven horizontal tie points; two additional field-identified vertical points; and four vertical tie points as checks. Strip 21 was adjusted on three horizontal tie points and eight field-identified vertical points with five horizontal and two vertical tie points as checks.

All adjustments were performed on the IBM 6600. All sheets were ruled and plotted on the Calcomp.

23. Adequacy of Control

All horizontal and vertical control utilized in the adjustments held within National Map Accuracy.

24. Supplemental Data

Vertical control for bridging the three 1:30,000-scale strips only was obtained from local USGS quadrangles.

25. Photography

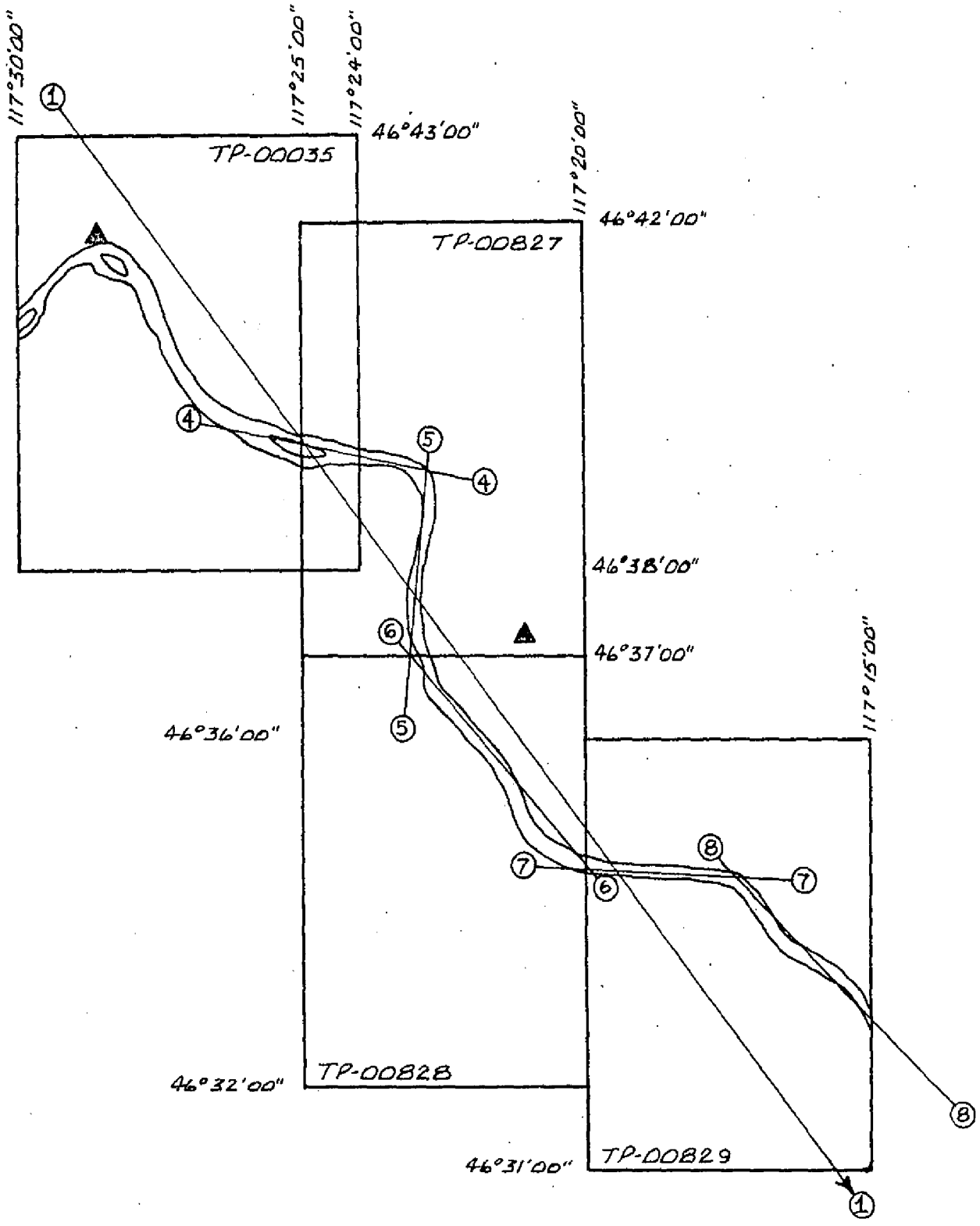
Photography was adequate as to overlap, definition, and coverage.

Submitted by:

Michael L. McGinley

Approved by:

John D. Perrow, Jr.
Chief, Aerotriangulation Section

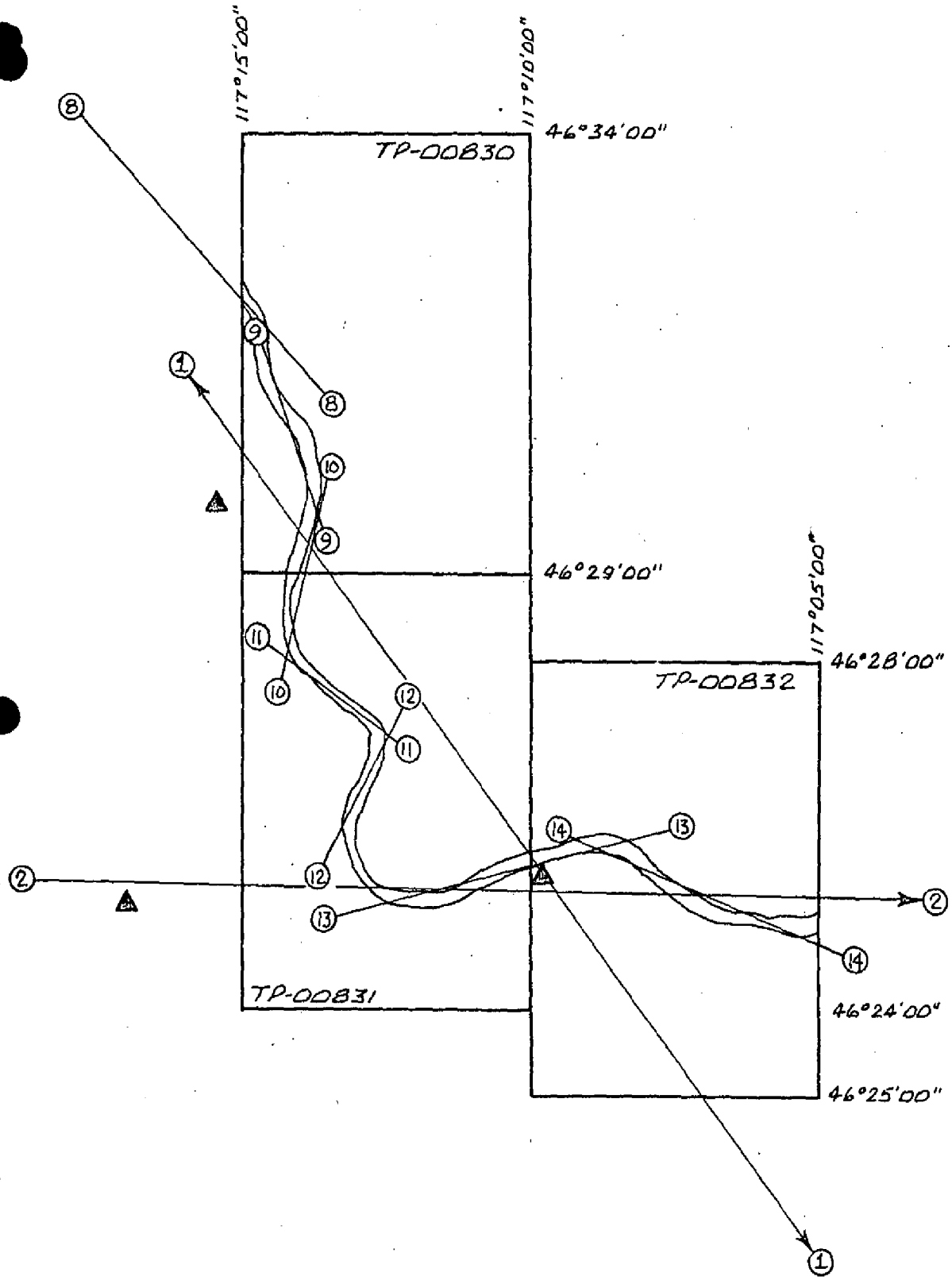


JOB CM-7408

SNAKE RIVER

WASHINGTON – IDAHO

JANUARY, 1975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46°34'00"
TP-00830
46°29'00"
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TP-00832
TP-00831
46°24'00"
46°25'00"
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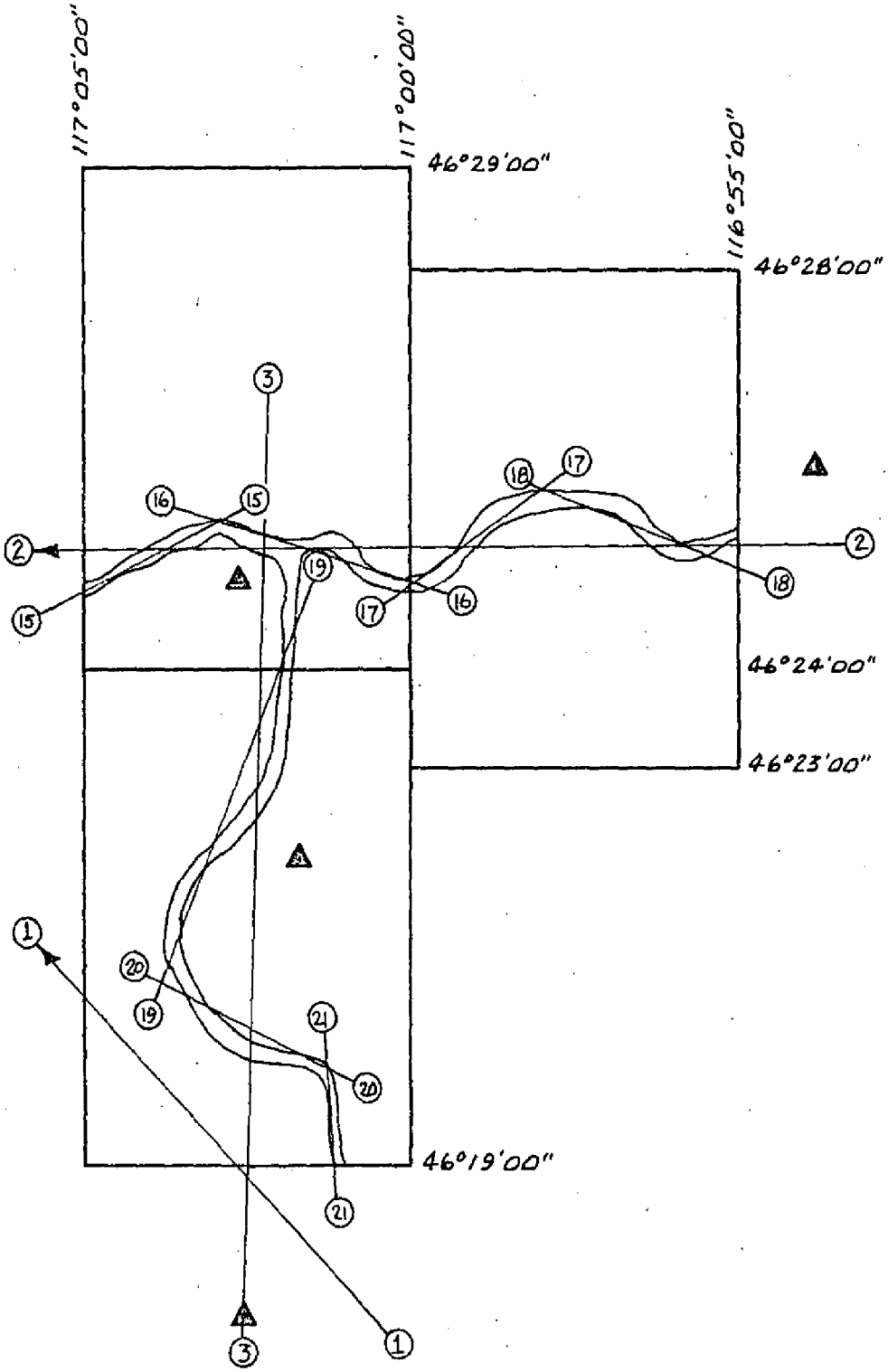
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116°55'00"
46°29'00"
46°28'00"
46°24'00"
46°23'00"
46°19'00"
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21

NOAA FORM 76-41
(6-75)

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

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	GEODETIC DATUM	ORIGINATING ACTIVITY
TP-00835	CM-7408	NA 1927	Coastal Mapping Division, AMC Norfolk, Virginia 23510

STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI-ANGULATION POINT NUMBER	COORDINATES IN FEET STATE Washington ZONE South	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	REMARKS
X361(USE), 1959	P.C. Quad.461163 Pg. 1001		x= 2,882,549.39 y= 416,180.63	φ λ	
LEWISTON(IDAHO), 1945	P.C. Pg. 239		x= 2,884,986.61 y= 412,106.66	φ λ	
LEWISTON, POTLATCH LUMBER CO., WEST STACK, 1945	P.C. Quad.461163 Pg. 1034		x= y=	φ 46 25' 31.250 λ 116 58' 06.892	
LEWISTON ORCHARDS RAD STA KRLC S TWR, 1977	NOAA Form 76-49 included with field edit report		x= y=	φ 46 23' 31.254 λ 116 59' 26.844	
LEWISTON ORCHARDS RAD STA KRLC N TWR, 1977			x= y=	φ 46 23' 35.171 λ 116 59 27.811	
LEWISTON, POTLATCH CORP. STACK, 1974			x= y=	φ 46 25' 49.684 λ 116 58' 23.096	
			x= y=	φ λ	
			x= y=	φ λ	
			x= y=	φ λ	
			x= y=	φ λ	

COMPUTED BY	DATE	COMPUTATION CHECKED BY	DATE
A. C. Rauck, Jr.	2/4/75	D. Butler	3/7/75
LISTED BY	DATE	LISTING CHECKED BY	DATE
HAND PLOTTING BY	DATE	HAND PLOTTING CHECKED BY	DATE

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

COMPILATION REPORT

TP-00835

31. DELINEATION:

Delineation was done from two sets of photographs. The first set was flown in June, 1974 with color film. It was bridged by the Rockville Office. The second set was flown by the Corps of Engineers in February, 1975, using black and white film. No bridge was run on it.

Control for the second set of photographs was established in the B-8 models of the first set. Details which had been altered by construction since the first photography were revised.

32. CONTROL:

See Photogrammetric Plot Report dated January 31, 1975, and the Field Inspection Report dated September-December, 1974, for horizontal and vertical control.

33. SUPPLEMENTAL DATA:

None.

34. CONTOURS AND DRAINAGE:

Contours at 3, 6, and 10 ft. intervals decreasing from the 738 ft. pool level line, and drainage ~~was~~ were delineated by office interpretation of the photographs. See project instructions dated January 23, 1974 item 9. 04. 1 Contours (Depth Curves).

35. SHORELINE AND ALONGSHORE DETAILS:

The pool level line at 738 ft. and details alongshore were delineated by office interpretation of the photographs.

36. OFFSHORE DETAILS:

Critical features, such as rocks, boulders, knobs, and hilltops, thought to be possible dangers to navigation were compiled ~~by~~ on the stereoplotter.

37. LANDMARKS AND AIDS:

No chart of this area currently exist. The field editor will investigate the landmarks and aids in the area.

38. CONTROL FOR FUTURE SURVEYS:

None.

39. JUNCTIONS:

See Form 76-36B, Item #5 concerning junctions.

40. HORIZONTAL AND VERTICAL ACCURACY:

Refer to the Photogrammetric Plot Report, dated January, 1975 for horizontal accuracy. Vertical control established by field methods and bridging was adequate for the model leveling process.

46. COMPARISON WITH EXISTING MAPS:

A comparison was made with the following U.S. Geological Survey Quadrangle, Lewiston Orchards North, Idaho, scale 1:24,000, dated 1958, Photo revised 1972.

47. COMPARISON WITH NAUTICAL CHARTS:

This area has not been previously charted.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

Submitted by:
David P. Butler

David P. Butler
Cartographic Aid
Date: April 6, 1975

Approved:
Albert C. Rauck, Jr.

Albert C. Rauck, Jr.
Chief, Coastal Mapping Section

August 7, 1979

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-7408 (Snake River, Lower Granite Dam to Asotin, Washington, Idaho)

TP-00835

Camas Prairie (RR)

Clearwater Park

Clearwater River

Forebay (locality)

Hatwai

Lewiston

Lewiston Hill

Mark Means Park

North Lewiston

Valley View Heights

Approved by:

Charles E. Harrington

Charles E. Harrington
Chief Geographer, C3x5

NOAA FORM 75-74
(7-75)

U.S. DEPARTMENT OF COMMERCE
NOAA
NATIONAL OCEAN SURVEY

PHOTOGRAMMETRIC OFFICE REVIEW

TP – 00835

1. PROJECTION AND GRIDS	2. TITLE	3. MANUSCRIPT NUMBERS	4. MANUSCRIPT SIZE
JLB	LN	LN	LN

CONTROL STATIONS

5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY *(Topographic stations)*	7. PHOTO HYDRO STATIONS
JLB	NA	NA

8. BENCH MARKS	9. PLOTTING OF SEXTANT FIXES	10. PHOTOGRAMMETRIC PLOT REPORT	11. DETAIL POINTS
JLB	LN	JLB	NA

ALONGSHORE AREAS *(Nautical Chart Data)*

12. SHORELINE	13. LOW-WATER LINE	14. ROCKS, SHOALS, ETC.	15. BRIDGES
LN	NA	LN	JLB

16. AIDS TO NAVIGATION	17. LANDMARKS	18. OTHER ALONGSHORE PHYSICAL FEATURES	19. OTHER ALONGSHORE CULTURAL FEATURES
JLB	LN	JLB	JLB

PHYSICAL FEATURES

20. WATER FEATURES	21. NATURAL GROUND COVER	22. PLANETABLE CONTOURS
LN	NA	NA

23. STEREOSCOPIC INSTRUMENT CONTOURS	24. CONTOURS IN GENERAL	25. SPOT ELEVATIONS	26. OTHER PHYSICAL FEATURES
JLB	JLB	JLB	

CULTURAL FEATURES

27. ROADS	28. BUILDINGS	29. RAILROADS	30. OTHER CULTURAL FEATURES
JLB	JLB	JLB	JB

BOUNDARIES

31. BOUNDARY LINES	32. PUBLIC LAND LINES
JLB	

MISCELLANEOUS

33. GEOGRAPHIC NAMES	34. JUNCTIONS	35. LEGIBILITY OF THE MANUSCRIPT
JLB	JLB	JLB

36. DISCREPANCY OVERLAY	37. DESCRIPTIVE REPORT	38. FIELD INSPECTION PHOTOGRAPHS	39. FORMS
JB	JB	JB	LN

40. REVIEWER	SUPERVISOR, REVIEW SECTION OR UNIT
Jim Byrd 3/77	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.*

COMPILER	SUPERVISOR
J. Roderick 11/77	Albert C. Rauck, Jr.
Reviewer-Lowell O. Neterer, Jr. 12/77	

43. REMARKS

~~See Form 76-36C, items #7 and #8.~~

NOAA FORM 75-74 (7-75)

FIELD EDIT REPORT

Project CM-7408

Lower Granite Reservoir, Snake River
Idaho, Washington

September 1977

2. Areal Field Inspection:

The project area is a section of the Snake River that is impounded by the Lower Granite Dam, forming a navigable pool and the lands adjacent to the pool.

The river passes through a steep canyon with numerous basaltic bluffs. The tops of the bluffs give way to open, rolling prairies which in a large part are cultivated grain fields.

Except for the area near the mouth of the Clearwater River where the cities of Lewiston, Idaho and Clarkston, Washington are located the area is sparsely populated.

The area is traversed by a line of the Camas Prairie Railroad, along the north and east shore of the Snake River and the Clearwater River. Two highway bridges and one railroad bridge are found in the area. One highway bridge in the vicinity of Clarkston, Washington is under construction.

3. Horizontal Control:

Horizontal control requirements consisted on paneling of preselected triangulation stations, necessary for aerial photography. The panels were the conventional, white opaque polyethylene material, cut to conform to the specifications for the premarking of control stations. All of the stations paneled were bureau triangulation stations. The establishment of new norizontal control stations was not required for photo-horizontal control.

Form 152, Control Station Identification cards were submitted for each station paneled. All of the paneled stations were in open areas and no difficulty should be encountered due to trees or shadows.

4. Vertical Control:

Vertical control consisted of the determination by the usual field methods of the elevations of preselected, photogrammetric vertical control points. These points are indicated on the field photographs with

the prefix "V" and a numbering system utilizing the last two digits of the numbered "TP" sheet (quadrangle) and consecutive numbers. A sketch of the feature appears on the reverse side of the photograph.

All leveling was based on bench marks established by the Coast and Geodetic Survey and the Corps of Engineers.

5. Contours and Drainage:

Contours only applicable for the office compilation of depth curves for underwater topography, based on the field determination of pre-selected photogrammetric vertical control points are required for the project.

7. Alongshore Features:

Alongshore features in the form of small boat launching ramps, floats, piers, bridges, pumping stations and power transmission lines have been indicated on the field photography.

8. Offshore Features:

Several features in the form of rocks were found along the shoreline. They have been indicated on the field photography. Several concrete bridge piers are found in the channel of the Snake River, near the mouth of the Clearwater River. The piers have been in place for four years and no progress on the bridge construction is evident, although local sources indicate the bridge construction may begin in the near future.

9. Landmarks and Aids to Navigation:

All aids to navigation were located by the field party. The majority of the fixed aids to navigation were photo-identified on the prints furnished by the U.S. Corps of Engineers. Several of the fixed aids to navigation were determined by ground survey methods.

Several landmarks for charts were located by the field party either by photo-identification or ground survey methods.

There are numerous skeleton steel, power transmission towers in the area and they are of landmark value. But, except for instances where they are the ends of overhead cable crossings, it is difficult to isolate and identify a particular tower from offshore.

The area is unusual as few salient landmark objects are visible from offshore.

All landmarks and fixed aids to navigation have been listed on Form 76-40.

13. Geographic Names:

Geographic names are the subject of a separate report. The report is dated January 1975.

14. Special Reports:

The method of leveling used by the field party was the conventional trignometric leveling with the Wild T1A theodolite and stadia rod. Due to the steepness of the canyon walls it was necessary to observe vertical angles across the river to avoid exceeding the 10° limit as imposed by the project instructions. Due to the distance involved, the RANGER III laser system was used with good results. A double determination or a closed loop leveling method was employed to obtain a check elevation.

The entire shoreline was field edited (inspected) from a small boat.

15. Small Craft Facilities Investigation:

The small craft investigation was conducted during the month of September 1977. All the facilities were visited and the pertinent information has been entered on Form 77-3.

Respectfully submitted,

Robt. B. Melby

Robert B. Melby
Chief, PMC Photo Party

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- [ ] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [x] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

- [x] TO BE CHARTED
- [ ] TO BE REVISED
- [ ] TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office): Coastal Mapping Div. A.M.C. Norfolk, Va.

STATE: Idaho

LOCALITY: Snake River, Lower Granite Dam and Res.

DATE: Nov. 1977

The following objects HAVE [x] HAVE NOT [ ] been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.:

JOB NUMBER: CM-7408

SURVEY NUMBER: TP-00835

DATUM: N.A.1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
STACK	(Lewiston, Potlach Lumber Co., West Stack, 1945) ht.=239(988)ft.	46 25	31.250 964.9	116 58	06.892 147.1		Triang. Rec. Aug. 30, 1977	
STACK	(Lewiston, Potlach Corporation Stack, 1974) ht.=322(1070) ft.	46 25	49.684 1534.1	116 58	23.096 493.1		" "	

REVIEW REPORT
TP-00835
CHART TOPOGRAPHY

June 26, 1979

61. GENERAL STATEMENT:

See Summary, page 6 of this Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Not applicable.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

Not applicable.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

No comparison is necessary. The contours and spot elevations shown on this map will serve as the hydrography for the new chart to be published of this area.

65. COMPARISON WITH NAUTICAL CHARTS:

No published charts of this area exist at present. The maps of this project will serve as the basis for construction of a new chart of the area.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

The map was compiled in accordance with the project instructions. See Summary, page 6 of this Descriptive Report concerning the application of some field edit items.

Submitted by:

A. L. Shands
A. L. Shands
Final Reviewer

Approved for forwarding:

Bill H. Barn
Chief, Photogrammetric Branch, AMC

Approved:

John D Terrace Jr
Chief, Photogrammetric Branch

Chief, Photogrammetry Division

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. TP-00835

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
18548	1-21-80	R. A. Lillie	Full ~~Part Before~~ After Verification Review Inspection Signed Via
		01-23-80 RCS	Drawing No.)
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.