

13213

13213

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Chart Topography
Field No.	Office No. T-13213
LOCALITY	
State	Oregon-Washington
General locality	Columbia River
Locality	Arlington
19 68 1967-69	
CHIEF OF PARTY	
V. Ralph Sobieralski, Chief	
Photogrammetry Division	
LIBRARY & ARCHIVES	
DATE	

USCOMM-OC 5087

DESCRIPTIVE REPORT - DATA RECORD

T - 13213

PROJECT NO. (II): PH-6718		
FIELD OFFICE (II): Washington Science Center		CHIEF OF PARTY V. Ralph Sobieralski
INSTRUCTIONS DATED (II) (III): Field - July 12, 1967 Field, Supplement 1 - December 26, 1967 New Chart Topography - September 19, 1967 Nautical Chart Requirements - March 6, 1968 Aerotriangulation - March 20, 1968 Office - April 15, 1968		
METHOD OF COMPILATION (III): B-8 Stereoplotter		
MANUSCRIPT SCALE (III): 1:20,000 (1:10,000 compilation worksheets)		STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:10,000
DATE RECEIVED IN WASHINGTON OFFICE (IV):		DATE REPORTED TO NAUTICAL CHART BRANCH (IV):
APPLIED TO CHART NO.	DATE:	DATE REGISTERED (IV):
GEOGRAPHIC DATUM (III): N. A. 1927		VERTICAL DATUM (III): MEAN SEA LEVEL EXCEPT AS FOLLOWS: <i>Elevations shown as (25) refer to mean high water</i> <i>Elevations shown as (5) refer to sounding datum</i> <i>i.e., mean low water or mean lower low water</i>
REFERENCE STATION (III):		
LAT.:	LONG.:	<input type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED
PLANE COORDINATES (IV): X =		STATE ZONE
ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (II) FIELD PARTY, (III) PHOTOGRAMMETRIC OFFICE, OR (IV) WASHINGTON OFFICE. WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.		

DESCRIPTIVE REPORT - DATA RECORD
T-13213

FIELD INSPECTION BY (III): Robert B. Melby		DATE: Jan.-Mar. 1968
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): Normal pool level, 265 ft. MSL, located by office interpretation from color photography, dated November 1967 and June 1968, and infrared, dated June 1968.		
PROJECTION AND GRIDS RULED BY (IV): R. Lillis		DATE March 1968
PROJECTION AND GRIDS CHECKED BY (IV):		DATE
CONTROL PLOTTED BY (III): H. Lucas		DATE July 1968
CONTROL CHECKED BY (III): J. Battley		DATE July 1968
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): I. I. Saperstein		DATE Apr.-May 1968
STEREOSCOPIC INSTRUMENT COMPILATION (III): J. Richter I. Saperstein	PLANIMETRY X	DATE July 1968
	CONTOURS X	DATE July 1968
MANUSCRIPT DELINEATED BY (III): M. Webber		DATE July 1968
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):		DATE
REMARKS: FIELD EDIT SEPT 1969		

DESCRIPTIVE REPORT - DATA RECORD

T-13213

CAMERA (KIND OR SOURCE) (III):

RC-8 (Corpos of Engineers "Y" camera)

RC-8 "E"

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
67-Y(C)-7125-7128	11/2/67	11:27-11:28	1:20,000	
67-Y(C)-7137-7142	"	11:55-11:57	"	
68-E(C)-6359-6362	06/16/68	10:17-10:19	1:20,000	
68-E(C)-6366-6373	"	10:28-10:32	"	
68-E(C)-6375-6379	"	10:48-10:50	"	

TIDE (III)

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION:			
SUBORDINATE STATION:			
SUBORDINATE STATION:			
WASHINGTON OFFICE REVIEW BY (IV): J. P. BATTLE	DATE: MAY-JUNE 1971		
PROOF EDIT BY (IV):	DATE:		
NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):	RECOVERED: 1	IDENTIFIED: 1	
NUMBER OF BM(S) SEARCHED FOR (II):	RECOVERED: 4	IDENTIFIED: 4	
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):			
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):			

REMARKS:

Summary to Accompany Descriptive Report T-13213

T-13213 is one of seven 1:20,000 scale chart topography maps covering Lake Umatilla (John Day Pool) a part of the Columbia River. John Day Pool was formed by impounding the water behind John Day Dam east to McNary Dam. The seven maps will provide the base for two small craft charts (673 SC and 674 SC).

Field operations began in late 1967 with the paneling of selected triangulation stations just prior to acquiring aerial photography. Field inspection continued and encompassed the determination of elevations of selected bench marks, shoreline inspection and the photoidentification of features that could possibly have a critical elevation for charting when the pool is formed.

Twelve strips were bridged by the analytical method, two strips at 1:60,000 scale and ten at 1:20,000 scale. Excellent horizontal and vertical accuracy was obtained from the pre-marked control and field determined elevations.

Photo-compilation was accomplished in the Washington office, utilizing the 1:20,000 scale color photography taken November 2, 1967, prior to the flooding of the John Day Pool. The Columbia River ranged in elevation, on this photography, from approximately 165 feet above MSL to 235 feet at McNary Dam. The shoreline to be shown on the charts is the "normal pool level" of 265 feet. Contours and spot elevations were compiled on the B-8 stereoplotter at selected intervals between the river level and the 265 foot shoreline contour. These will be used as depth curves and soundings on the published chart. All required chart compilation features were compiled at this same time. The original instructions called for the photogrammetric compilation at chart scale (1:20,000) but upon initiating the B-8 compilation, it was apparent that for clarity the contours would have to be compiled at 1:10,000 scale. This scale allows the Marine Chart compiler and the field editor to clearly interpret the contours and other compiled features and evaluate, what will be shown on the finished chart. Discussion with the Marine Chart Division resulted in the decision to supply them with 1:10,000 scale inked "Manuscript work bases" for interpolation. Field edit was applied to these bases (approx. two bases for each T-sheet). These bases were reduced to one-half size and paneled to the 1:20,000 scale manuscripts for copy

and registration. Any new features revealed by the 1968 photography were added during edit application. This photography was taken after the area was flooded and a comparison was made with the compiled shoreline.

Field edit was completed in September 1969.

1:10,000 scale cronaflexes and 1:20,000 scale reductions were furnished Marine Charts. Due to a change in their priorities, completion was delayed on this project. Review and registration was re-scheduled and completed in June 1971.

Submitted by:



J. P. Battley, Jr.

Areal Field Inspection

The area is the reservoir to be formed by the John Day Dam on the Columbia River, between the states of Washington and Oregon. The land adjacent to this section of the river could be considered semi-arid, with dry land grain farming on the plateaus above the river gorge and irrigated lands adjacent to the river.

The major portions of the river flows through a rocky gorge, although stretches of the river's present shoreline is of a gravel-stone composition notably the upper reaches of the proposed reservoir.

The color photography furnished the field unit was of good quality for this selection of vertical features.

Horizontal Control

The horizontal control requirements were fulfilled when a selected number of triangulation stations were paneled prior to the flying of the horizontal bridging photography, during the summer of 1967. White plastic or whitewash was used as paneling material. The plastic material required a considerable amount of stones or stakes to hold it in place during windy periods.

Vertical Control:

Vertical Control points had been selected and indicated on the photography furnished to the field party. An elevation was determined in the field for each selected point by trigonometric leveling, using stadia, electrochain or geodetic lengths.

The pool area was inspected for possible critical elevation features in conjunction with the Corps of Engineers topographic maps. Near the upper end of the pool, several islands that are awash during

the spring flooding of the river were considered to be possible obstruction features even though they are relatively flat. They will probably form shoal areas once the reservoir has been filled.

A tabulation of the vertical control points (V. P.-) and critical elevation features (C. E. F.-) have been compiled as to photograph number field record book, to aid the compiler.

Recovery notes C(form 685A) will be submitted for each C&GS bench mark recovered. Recovery notes for each U.S. Corps of Engineers bench mark recovered and used as basic vertical control are being submitted with a concise description, as the majority of these marks do not have previous descriptions and the time necessary to make a complete recovery of each mark was considered to be excessive in view of the fact many of the U.S.E. bench marks do not meet C&GS requirements for monumentation and some will be inundated in the near future.

Possible changes may occur on the major areas of Blalock Island, as it is composed mostly of fine drifting sand. The river currents after the flooding by the dam, will probably cause some degree of erosion as the sand is primarily in ridges and dunes. Along the south shore of the river in the vicinity of the old railroad station of Quinton, Oregon is an area composed of a large group of rocky outcroppings (Photo 67y7109). The elevations of the most prominent outcroppings were determined in the field. This area should be charted foul. ←

Shoreline Inspection

The alongshore area including the river islands were inspected and classified as to their sediment characteristics. After the flooding

of the reservoir, this will give the equivalent of bottom samples.

This data was indicated on the field photographs.

Field Methods:

The majority of the field trigonometric leveling was performed with the Wild T1A theodolite. This particular instrument incorporates a self leveling vertical circle feature which expedited each instrument setup. Rod levels were used in conjunction with the stadia rods to insure the verticality of the rods, as the wind was a frequent factor. The U.S. Geological Survey "Stadia Tables for Obtaining Differences of Elevations". No. 9-1163 was used in the computations.

The use of the electrochains to determine distances were used only when the physical conditions of the terrain made the usual trig-level impractical.

Only two full sets of instrument readings were recorded for each observation setup instead of the normal procedure of two full and eight fine sets of readings. In each case an offset or eccentric point was occupied. In effect this allows a double-determination of the new point by a sliver triangle. When the electrochains were used reciprocal observations were observed with the Wild T-2 theodolite.

Field Problems

It was necessary to be selective in the choice of horizontal control stations to be paneled as the panels required a relatively large area, the remote stations were selected as the panels would not have to be set in cultivated ^{areas} ~~areas~~. The plastic paneling material undergoes a change when exposed to the elements and becomes quite brittle after a short period and more or less disintegrates and the fragments are

scattered by the winds. In the future it may be necessary for the field units to revisit and remove the paneling after photography to control the litter problem.

Steep, rocky cliffs required a zigzag course to maintain the 10 degree vertical angle maximum as per the project instructions. No particular difficulty was encountered other than the reservoir area was being cleared of cultural features and the removal of bridges, culverts and the construction of railroad and highway right-of-way fences created an access problem at times.

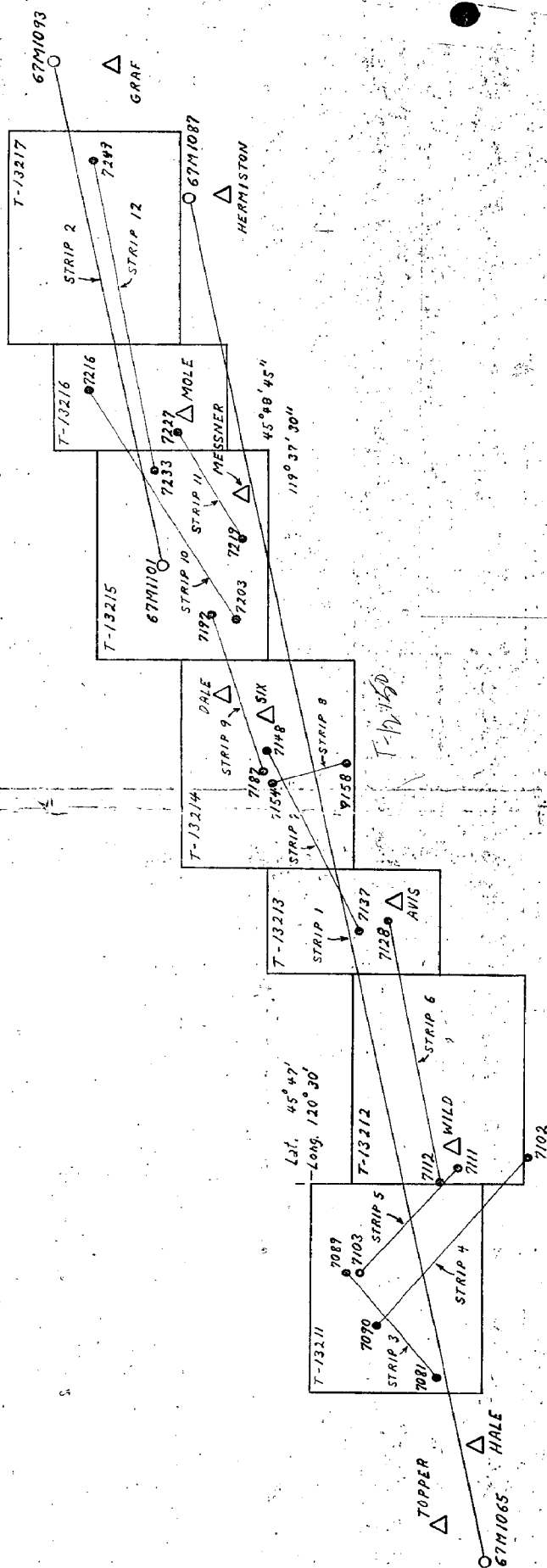
Contact with the U. S. Corps of Engineers, Walla Walla District can be made with Mr. J. P. Futhey, Phone 509-525-5500, extension 400, Walla Walla, Washington

Approved: *Gerold L. Short*
Gerold L. Short

CAPTAIN, USESSA

Respectfully Submitted:

Robert B. Melby
Robert B. Melby
Chief Photo Party
Pacific Marine Center



AEROTRIANGULATION SKETCH

JOHN DAY POOL

COLUMBIA RIVER

OREGON - WASHINGTON

MAY, 1968

- 1:60,000 panchromatic
● 1:20,000 color
△ horizontal control

PHOTOGRAMMETRIC PLOT REPORT
JOB PH-6718
COLUMBIA RIVER, OREGON - WASHINGTON
August 1968

21. Area Covered

This report covers the Columbia River from the John Day Dam to the McNary Dam, consisting of seven (7) 1:20,000 scale T-sheets, T-13211 thru T-13217. - (T-13214 has changed to T-12150)

22. Method

Twelve (12) strips were bridged using analytical methods. Strips 1 and 2 were 1:60,000 scale panchromatic diapositives and strips 3 thru 12 were 1:20,000 scale color diapositives. Numerous tie points were located from the 1:60,000 scale photography 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. Closures to both horizontal and vertical control are shown for each strip on the IBM readouts along with all bridge points on Oregon Zone 1 plane coordinates. All points have been converted to Mercator values.

23. Adequacy of Control

All horizontal control was premarked and was adequate to control the 1:60,000 scale bridge.

Since the vertical accuracy of our bridging results was of prime importance, the field party was required to furnish elevations to insure results of high accuracy. The results of our bridging proved their work to be very good. The RMS deviations for 173 vertical points in our bridged strips was 1.0 feet.

24. Photography

The definition and quality of the RC-9 "M" and RC-8 "Y" photography were good. No difficulty was encountered in the bridging of any strip.

Respectfully submitted,

I. I. Saperstein
I. I. Saperstein

Approved and Forwarded,

Henry R. Eichel
Chief, Aerotriangulation Section

COMPILATION REPORT
T-13213

Refer to Descriptive Report No. T-13211 for Field Inspection and Photogrammetric Plot Reports.

31. Delineation

T-13213 is a 1:20,000 scale chart compilation manuscript. Worksheets for T-13213 were compiled on the B-8 stereoplotter at a scale of 1:10,000. Color photographs at 1:20,000 scale were taken November 2, 1967, and bridged and used in the instrument. The photography was supplemented with color photography taken in June 1968 after the John Day Pool area was flooded. Ratio prints at 1:10,000 scale of the 1968 photography were compared with the compiled worksheets and additions or revisions were made prior to inking. Two worksheets were inked at 1:10,000 scale to cover the area of T-13211. This scale afforded clarity of the compiled features. (See the Summary in the Descriptive Report for T-13211.)

A cronaflex copy and ozalid copies were ordered for these worksheets for field edit use. After field edit is applied, one-half reduction cronaflexes will be made and paneled onto the 1:20,000 scale manuscript for T-13213.

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 as a bathymetry chart (depth curves, etc.). Excellent vertical accuracy was achieved in the bridge from numerous field-identified vertical points. (See the Photogrammetric Plot Report.)

33. Supplemental Data

None used in photogrammetric compilation.

34. Contours and Drainage

Color photography at 1:12,000 scale was bridged by analytic methods and used in the B-8 stereoplotter for contouring. This photography taken in November 1967 before the pool area was flooded was of good quality and contours within the required accuracy (± 2 feet) were obtained.

Contours were drawn at prescribed intervals from the old river shoreline (165 ft.) to 262 ft. These intervals were: 3 feet from the 265 ft. shoreline to 259 ft. (30-ft. depth curve) 6 ft. down from 259 ft. to 235 ft. (30-ft. depth curve) and 10-ft. intervals to old river level.

In areas of congestion, the 247-ft. and the 259-ft. contour (18-ft. and 6-ft. depth curves) were given preference and contoured without feathering. The 265-ft. elevation was then contoured as the shoreline at normal pool level.

35. Shoreline and Alongshore Detail

The shoreline was delineated as stated in Item 34. Color photography of 1:20,000 scale, 1968, taken after the John Day Pool was flooded, was ratioed and compared with the contoured shoreline. Minor differences were noted and revised.

A new ferry slip was under construction at Arlington to cross the river to New Roosevelt and should be checked for changes.

36. Offshore Details

No comment.

37. Landmarks and Aids

Three aids to navigation were located from U.S. Coast Guard positions and there seems to be some discrepancy of Lt. 29 and Lt. 31. Airport Beacon, Tank and Gable may be used as landmarks.

38. Control for Future Surveys

None

39. Junctions

Junction was made to the west with T-13212 and to the east with T-12150 and are in agreement.

40. Horizontal and Vertical Accuracy

Refer to Paragraph No. 23 of Photogrammetric Plot Report, also Paragraph No. 32 of the Descriptive Report.

41.thru 45.

Inapplicable

46. Comparison with Existing Maps

Comparison has been made with USGS Quadrangle Arlington, Oregon-Washington, scale 1:24,000. This quadrangle is an unedited copy of the original manuscript including field edit corrections made in 1964.

Comparison was also made with USGS Quadrangle Wood Gulch, Washington-Oregon, scale 1:24,000, dated 1962, published prior to the construction of John Day Pool.

47. Comparison with Nautical Charts

Comparison was made with Preliminary Chart No. 6160, scale 1:20,000, 2nd edition, August 22, 1966, and Preliminary Chart No. 6159, scale 1:20,000, 3rd edition, dated July 1968. These were compiled from John Day Lock and Dam Reservoir drawings of U.S. Corps of Engineers, dated 1965, using an interpreted line between the 260- and 270-foot contour as the 265-foot pool level for the shoreline.

Items to be applied to Nautical Chart immediately: None.

This is a new chart compilation.

Respectfully submitted:

John C. Richter
John C. Richter
Cartographer

Approved and Forwarded:

K. N. Maki, Chief
Compilation Section

FIELD EDIT REPORT

Chart Topography
Lake Umatilla (John Day Pool)
Columbia River, Washington-Oregon
March 1969
Map Manuscripts T-13211 through T-13217

This report covers the area of Lake Umatilla as formed by the John Day Dam on the Columbia River and common to the states of Washington and Oregon.

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 level of the water surface of the pool fluctuated several feet during the time of the field editing. The pool level for several days was below the normal elevation of 265 feet above mean sea level. The lower water provided ready field inspection of the exposed rocks and shoal areas.

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

52. 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.

All the discrepancies were investigated and resolved.

Cliffs and bluffs are in evidence in the westerly portion of the project area. Generally the cliffs and bluffs are too extensive to attempt to designate a particular escarpment as a landmark. Office interpretation could show the extent of the most obvious of these features by the hachure symbol or contour lines if so desired.

There are so few buildings in the area, that nearly every shoreline cultural feature is of landmark value. Along the railroads are several small communities consisting of several dwellings and usually a small, elevated water tank. These small communities are the residence for the railroads maintenance and service crews. It is recommended the buildings be mapped and the elevated tanks symbolized as small tanks.

Various parks, recreation and wildlife management areas are found along the shores of the lake in varying stages of construction or development. These features appear on the U. S. Corps of Engineers maps and are included with the geographic names data. The recreation

areas are generally an auto parking area, a surfaced, small boat launching ramp, a float and comfort facilities. In some of the larger areas, like Boardman and Umatilla, piling has been driven and floats for the moorage of small craft are in different stages of construction. In some instances only the capped piling are in place, near a surfaced ramp, and will be used to secure the floating piers.

All fixed aids to navigation were inspected and photo-identified or the office identification was verified. Two aids near McNary Dam that were beyond the limits of the color photography were field checked by triangulation intersection methods. Several of the fixed aids to navigation were not found on station, but were temporarily marked by a buoy. An employee of the U. S. Corps of Engineers, Walla Walla District stated the single "I"-beam pile structures that supported the lighted aids had been destroyed by wave action during violent winter storms. The missing aids were not included on the Form 567. Annotations describing their disposition at the time of the field inspection have been entered on their respective photographs.

Purple ink was used to indicate corrections on the discrepancy sheets. Red-orange tempera, water soluble ink was used for the annotations on the field edit photographs. Green ink was used on both the field edit photography and the discrepancy prints to indicate deletions.

Rocks and shoals were investigated. The elevations of these features in relationship to the water surface at the time the feature was visited, was recorded on the photographs. Several bench marks along the shoreline permitted the field unit to determine the stage of the water surface at the time of the field inspection. In the vicinity of Blalock Island, the flooding waters of the impounded river covered the islands except for a few sand dunes that remained exposed. However, wave action, currents, winds and other natural forces have eroded most of the dunes until they are no longer exposed, but are now shoal areas. Since the dunes were comprised of fine, wind blown sand, the erosion is quite extensive and no doubt it will continue for sometime and the shifting of the shoal areas could be expected to continue for sometime.

Pertinent information pertaining to an individual discrepancy sheet will be listed under that specific sheet in the body of this report.

All landmarks were investigated. All charted landmarks found and all new landmarks have been listed on Form 567. Landmarks that no longer exist have been listed on Form 567 to be deleted.

Geographic Names are the subject of a separate report. Any new names or name changes will be discussed in this separate report.

Sheet T-13211

On this sheet appears the John Day Navigation Lock and Dam. Two navigation lights were photo-identified. They are along the downstream entrance of the navigation lock of the dam.

The light list numbers of several of the fixed aids to navigation have been changed in accordance with the Notice to Mariners #12, dated 6 March 1969.

Several rocks in the vicinity of light 14 were located by sextant fixes.

Along the northeast shore of the John Day River is a one-lane dirt road. The road has been blocked to vehicular traffic at its junction with Interstate Highway 80 North. It is recommended the road should be mapped as a trail.

Several overhead power cable crossings have been indicated.

Sheet T-13212

All fixed aids to navigation were photo-identified. Two new landmarks were selected and identified. Several small boat launching ramps are also found in this area.

In the vicinity of Sundale, there is an orchard with tall wind break trees. It is recommended both the orchard and the configuration of the wind break trees should be shown on the maps, as they are the most salient features in this particular area.

Sheet T-13213

Light 29 was lost during the winter storms and it has been replaced by a buoy. Light 31 is also missing and it too has been replaced by a buoy. However, the steel "I"-beam pile that supported Light 31 is still in place and leaning slightly. It was photo-located and it should be mapped as a lone pile.

*Pile removed
See N 10 m 38/69*

The conflict between the names Roosevelt and West Roosevelt (community) will be covered in the geographic names report. Northeast of Roosevelt is a park (Petroglyph Park) that was incorrectly compiled as a cemetery. The park contains boulders with petroglyphs (rock carvings). The boulders had been removed from the areas along the shores of the river prior to its flooding and they are arranged and displayed at the park.

Three landmarks were selected in the area.

Sheet T-13214

All fixed aids to navigation were photo-identified. The river elevation was below the normal pool level and various rocks were investigated and their heights in relation to the existing water surface were determined and recorded on the photography.

FIELD EDIT REPORT

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Sheet T-13211

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The light list numbers of several of the fixed aids to navigation have been changed in accordance with the Notice to Mariners #12, dated 6 March 1969.

Several rocks in the vicinity of light 14 were located by sextant fixes.

Along the northeast shore of the John Day River is a one-lane dirt road. The road has been blocked to vehicular traffic at its junction with Interstate Highway 80 North. It is recommended the road should be mapped as a trail.

Several overhead power cable crossings have been indicated.

Sheet T-13212

All fixed aids to navigation were photo-identified. Two new landmarks were selected and identified. Several small boat launching ramps are also found in this area.

In the vicinity of Sundale, there is an orchard with tall wind break trees. It is recommended both the orchard and the configuration of the wind break trees should be shown on the maps, as they are the most salient features in this particular area.

Sheet T-13213

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The conflict between the names Roosevelt and West Roosevelt (community) will be covered in the geographic names report. Northeast of Roosevelt is a park (Petroglyph Park) that was incorrectly compiled as a cemetery. The park contains boulders with petroglyphs (rock carvings). The boulders had been removed from the areas along the shores of the river prior to its flooding and they are arranged and displayed at the park.

Three landmarks were selected in the area.

Sheet T-13214

All fixed aids to navigation were photo-identified. The river elevation was below the normal pool level and various rocks were investigated and their heights in relation to the existing water surface were determined and recorded on the photography.

A small boat basin and a surfaced launching ramp are found at the mouth of three Mile Canyon.

Sheet T-13215

Castle Rock Light 48 is missing and it has been replaced by a buoy. All fixed aids to navigation were photo-identified.

Considerable changes in the shoaling exists in the area of the Blalock Islands. See the photography of the area as referenced on the discrepancy sheets for the present status of the sand islands and shoals.

An elevated water tank was selected as a landmark in the town of Boardman.

Considerable shoaling and silting at the mouth of Glade Creek has rendered the surfaced launching ramp useless except at higher than normal water elevations of the river.

The feature mapped as an abandoned railroad on the east one of three discrepancy sheets is a dismantled railroad as both the track and crossties have been removed and it is in effect single lane dirt at present.

Sheet T-13216

All fixed aids to navigation were photo-identified. One landmark was also selected and identified.

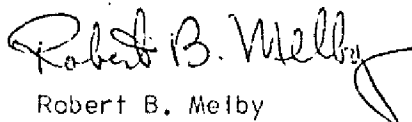
The old, abandoned railroad grade east of Paterson is rapidly eroding away. The railroad bed was built on a sand fill and the action of the water is gradually reducing the grade to a submerged shoal.

The flooding of the shallow areas can be correctly interpreted from the color photography.

Sheet T-13217

All fixed aids to navigation were photo-identified or field checked. Four landmarks were selected and identified. Two small craft boat basins and four launching ramps were indicated on the field edit photography.

Respectfully Submitted,


Robert B. Melby
Chief, Photo Unit, PMC

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6718 (Lake Umatilla,
Oregon and Washington)

T-13213

Arlington ✓

Columbia River ✓

Interstate 80N (Highway) ✓

Jones Canyon *

Lake Umatilla ✓

Roosevelt ✓

Spokane, Portland and Seattle (R. R.) ✓

State No. 14 (Highway) ✓

Union Pacific (R. R.) -

U. S. No. 30 (Highway) -

Wood Gulch *

2000 10 10

Approved by:

A. J. Wraight

A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett

Frank W. Pickett
Cartographic Technician

*Feature not compiled

REVIEW REPORT

T-13213

June 1967

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 USGS Quadrangle Arlington, Oregon-Washington, scale 1:24,000. This is an edited copy of the original manuscript including field corrections made in 1964.

Comparison was also made with USGS Quadrangle Wood Gulch, scale 1:24,000, dated 1962. Revisions necessitated by new construction of the first two index contours above the normal pool level (300 and 400 ft.) were made on the B-8 stereoplotter.

64. Comparison with Contemporary Hydrographic Surveys

None

65. Comparison with Marine Charts

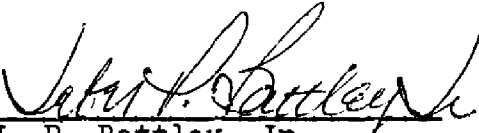
Comparison was made with Chart No. 6159, scale 1:20,000, 2nd edition, dated September 12, 1966. The John Day Dam was under construction at that time.

Preliminary Chart 6159, scale 1:20,000, 3rd edition, dated June 1968, was compiled from John Day Lock and Dam Reservoir drawings by the Corp of Engineers, dated 1965, using an interpreted line between 260-ft. and 270-ft. contour as the shoreline. This was also compared. All landmarks and aids were new and verified by field edit.


66. Adequacy of Results and Future Surveys

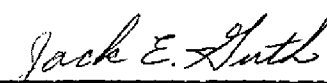
This map complies with project instructions and meets the National Standards of Accuracy. T-13213 and the other six maps in this project will provide an excellent base for new charts 673 and 674SC.

Reviewed by:


J. P. Battley, Jr.

Approved by:


Charles Theurer, Chief
Photogrammetric Branch DBG


J. E. Guth, Chief
Coastal Mapping Division

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

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

Umatilla, Oregon March 13 19 69

I recommend that the following objects which have ~~(been charted)~~ 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

R. B. Melby

Chief of Party

STATE			Washington-Oregon			POSITION						METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
CHARTING NAME	DESCRIPTION	Light List	LATITUDE*		LONGITUDE*	DATUM											
			° ' "	D.M. METERS			° ' "	D.P. METERS									
		XXXXXX NAME															
	OLD LADY CANYON LIGHT 26		1784.11	45 42	59.66	120 16	57.79	N.A.	T-13212	Photo	3/12/69						6160
	ARLINGTON CARGILL LIGHT		1785.09	45 43	28.34	120 12	371.6		T-13213		"						"
	ARLINGTON LIGHT 28		1785.11	45 43	22.37	120 12	29.75		T-13213		"						"
	ROOSEVELT LIGHT 30		1787.11	45 45	15.52	120 10	67.65				"						"
	HEPPNER LIGHT 36		1793.11	45 47	36.77	120 01	1112.5		T-12150		"						"
	McCREDIE LIGHT 39		1795.11	45 49	01.14	119 59	910.5				"						"
	THANKSGIVING LIGHT 40		1796.11	45 49	02.99	119 57	59.80				"						"
	ALDERDALE LIGHT 43		1798.11	45 49	49.18	119 56	1290.7				"						"
	ALDERDALE LIGHT 44		1799.11	45 49	27.87	119 55	264.4				"						6161
	CROW BUTTE LIGHT 47		1801.11	45 50	360.4	119 55	44.99				"						"
	CASTLE ROCK LIGHT 50		1804.11	45 50	33.35	119 51	971.1		T-13215		"						"
	CROW BUTTE LIGHT 51		1805.11	45 51	1029.6	119 48	33.60				"						"
	WHITCOMB LIGHT 52		1806.11	45 50	38.66	119 48	725.1				"						"
	WHITCOMB LIGHT 53		1807.11	45 51	1193.6	119 46	55.61				"						"
					1389.9	119 46	1200.0				"						"
					04.73	119 48	31.77				"						"
					146.0	119 48	685.4				"						"
					45.02	119 46	59.48				"						"
					1389.9	119 46	1283.3				"						"
					08.64	119 45	30.60				"						"
					266.75	119 45	660.1				"						"

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 landr and nonfloating aids to navigation, if redetermined, shall be reported or s form. Revisions shall show both the old and new positions. The data r ld 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

TO BE CHARTED
~~TO BE REVERSED~~
~~TO BE DELETED~~

STRIKE OUT TWO

I recommend that the following objects which have ~~(been inspected from seaward to determine their value as landmarks be~~ charted on ~~(the charts indicated.~~

The positions given have been checked after listing by

R. B. Melby

Chief of Party.

STATE		Washington-Oregon		Photo		POSITION										METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
CHARTING NAME	DESCRIPTION	SIGNAL NAME	Photo	LATITUDE *		LONGITUDE *		DATUM	METHOD OF LOCATION AND SURVEY No.		DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED						
				° ' "	D.M. METERS	° ' "	D.P. METERS														
TANK	Tank	68-E 6315		45 43	21.48 663.2	120 42	268.0	N.A.	1927	13211	3/19/69				6159						
W.GAB	West Gable, Building	6329		45 41	1402.9	120 35	410.5	"	"	"	"				"						
W.GAB	West Gable, Grain Elevator	6354		45 41	50.04 1544.9	120 20	367.6	"	"	T-13212	"				"						
A	Letter "A" on Hillside	6361		45 43	18.72 528.0	120 11	51.01 1103.3	"	"	T-13213	✓				6160						
ELEVATOR	Flashing red lt. atop Grain Elevator at Arlington	6361		45 43	25.65 751.9	120 12	16.34 353.4	"	"	"	✓				"						
ELEVATOR	Grain Elev. at Roosevelt	6377		45 45	10.92 337.1	120 11	29.53 638.2	"	"	"	✓				"						
TANK (Elev.)	Elevated Water Tank	6438		45 50	23.80 827.4	119 42	05.84 126.0	"	"	T-13215	"				6161						
N.GAB	North Gable, Elevator	6452		45 55	05.12 158.1	119 33	44.91 967.6	"	"	T-13216	"				6162						
ELEVATOR	Microwave, skeleton steel tower ht.=149' (314)	6463		45 55	03.25 100.3	119 18	42.47 915.1	"	"	T-13217	"				"						
TOWER	Microwave ht.=100' (380")			45 53	53.70 1312.4	119 29	13.74 296.3	"	"	"	"				"						

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 land and *floating aids* to navigation, if redetermined, shall be reported or *revised* form. Revisions shall show both the old and new positions. The data shall be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.

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

FORM CAGS-0352 SUPERSEDES ALL EDITIONS OF FORM CAGS-075.