13211

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U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Chart Topography

Field No. Office No. T-13211

LOCALITY

State Oregon-Washington

General locality Columbia River

Locality John Day Dam

19 68 (967-69)

V. Ralph Sobjeralski Chief, Photogrammetry Division

LIBRARY & ARCHIVES

DATE

USCOMM-DC 5087

FORM IC&GS-181a (3-66)

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

•	DESCRIPTIVE REPO T	0 RT - DAT 1321 -		
PROJECT NO. (II):				<u>, ,</u>
PH-6718	7			
FIELD OFFICE (II):			CHIEF OF PARTY	
PHOTOGRAMMETRIC OFFICE	(m):		OFFICER-IN-CHARGE	
Washington S	cience Center		V. Ralph So	obieralski
INSTRUCTIONS DATED (II) (I	II) :		<u> </u>	
New Chart To Nautical Cha	ement 1 - December 26 pography - September rt Requirements - Man ation - March 20, 196	19, 19 rch 6,	67	
METHOD OF COMPILATION (
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(1:10,000 co	1:20,000 mpilation worksheets)		10,000	COMENT SCALE (III).
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APPLIED TO CHART NO.		DATE:	0	ATE REGISTERED (IV):
GEOGRAPHIC DATUM (III):	,	l	VERTICAL DATUM ((m):
N.A. 1927	•		MEAN SEA LEVEL E Elevations shown as	(25) refer to mean high water (3) refer to sounding datum or mean lower low water
REFERENCE STATION (III):				
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PLANE COORDINATES (IV):			STATE	ZONE
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WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.

DESCRIPTIVE REPORT - DATA RECORD

	T-13211	
FIELD INSPECTION BY (II):		DATE:
Robert B. Melby		JanMar. 1968
MEAN HIGH WATER LOCATION (III) (STATE DATE	AND METHOD OF LOCATION):	
	feet MSL, located by of dated November 1967 and 58.	
PROJECTION AND GRIDS RULED BY (IV):		DATE
R. Lillis		Mar. 1968
PROJECTION AND GRIDS CHECKED BY (IV):		DATE
CONTROL PLOTTED BY (III):		DATE.
H. Lucas		May 1968
CON"ROL CHECKED BY (III):		DATE
J. Battley		May 1968
RADIAL PLOT OR STEREOSCOPIC CONTROL EXT	ENSION BY (III):	DATE
I. I. Saperstein		AprMay 1968
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY	DATE
J. Richter	x	May 1968
I. I. Saperstein	CONTOURS	DATE
	X	May 1968
MANUSCRIPT DELINEATED BY (III):		DATE
M. Webber R. Youngblood		May-June 1968
SCRIBING BY (III):		DATE 1900
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):		DATE
REMARKS: FIELD EDIT-	- (969 (Sept)	- -

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

DESCRIPTIVE REPORT - DATA RECORD

T-13211

RC-8 (Corps of Engineers "Y" Camera)
RC-8 "E"

		PHO	OTOGRAPHS (III)				
NUMBER	DATE]	TIME	SCALE	ST	AGE OF TI	DE
67-Y(C)-7081-7089 67-Y(C)-7090-7099 67-Y(C)-7103-7110 68-E(C)-6313-6320 68-E(C)-6325-6328 68-E(C)-6338-6344 68-E(C)-6346-6347	Nov. 2, " 6/16/68 "3"	' 67	10:41-10:45 10:56-11:02 11:11-11;15 09:39-09:45 09:52-09:57 10:02-10:06 10:13	3 1:20,000			
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					RATIO OF RANGES	MEAN RANGE	SPRING RANGE
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WASHINGTON OFFICE DEVIEW BY	100. 3.0 a			_	DATE:	_	
WASHINGTON OFFICE REVIEW BY	1141: 7.4.6	B 4	THUEY J	2.		- 10 WE	(44)
PROOF EDIT BY (IV):					DATE:		
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REMARKS:		••••					_

T-13211 is one of seven 1:20,000 scale chart topography maps covering Take 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 premarked 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 onehalf 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.

attley h

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, althrough 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 the 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 sonsidered 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 duhes. 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 TlA 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 dress. The plastic paneling material undergoes a change when exposed to the elements and becomes quite brittle after a short period and more or less disintergrates 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

CAPTAIN, USESSA

Respectfully Submitted:

Robert B. Melby

Chief Photo Party

Pacific Marine Center

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

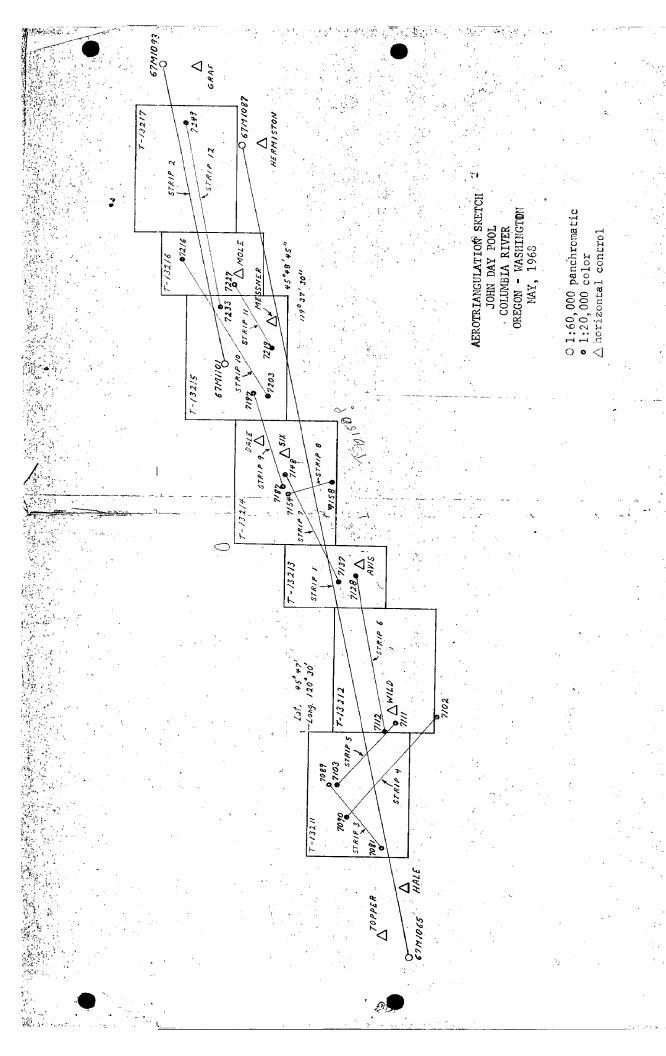
The definition and quality of the RC-9 "M" and RC-8 "Y" photography were good. No difficulty was encountered in the bridging of any strip.

Respectfully submitted,

hong 2 Laperstein

Approved and forwarded

Merotriangulation Section



COMPILATION REPORT T-13211

31. Delineation

T-13211 is a 1:20,000 scale chart compilation manuscript. Worksheets for T-13211 were compiled on the B-8 stereoplotter at a scale of 1:10,000. Color photographs at 1:20,000 taken November 2, 1967, were bridged and used in the instrument. This 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 and/or revisions were made prior to inking. Three worksheets were inked at 1:10,000 scale to cover the area of T-13211. This scale afforded clarity of the compiled features (see Summary in this report).

A cronaflex copy and ozalid copies were ordered for these worksheets for field edit use. After field edit is applied, 1/2 reduction cronaflexes will be made and paneled onto the 1:20,000 scale manuscript for T-13211.

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 hydrography, (depth curveys, 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.

34. Contours and Drainage

Color photography at 1:20,000 scale was bridged by analytic methods and used in the B-8 plotter for contouring. This photography, taken in November 1967, before the pool area was flooded, was of very good quality and contours within the required accuracy (-2 feet) were obtained. Contours were drawn, at prescribed intervals from the old river shoreline (165 feet) to 262 feet. These intervals were: 3 feet from the 265 foot shoreline to the 259 foot contour (6 foot depth curve); 6 feet from 259 feet to 235 feet (30 foot depth curve) and 10 foot intervals from there to 165 feet (100 foot depth).

In areas of congestion, the 247 ft. and 259 ft. line (18 foot and 6 foot depth curve) 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 Details

The shoreline was delineated as stated in Item 34. The 1968 color photography taken after the John Day Pool was flooded, was ratioed and compared with the contoured shoreline. Minor differences were noted and revised.

The foreshore area in the vicinity of Quinton, Oregon, is an area composed of numerous rock outcroppings lying just below the surface of the water when the pool is at the 265 foot level. This area was carefully contoured and many spot elevations were shown. The area should be charted foul as recommended by the field inspection. The compilation of T-13211 included the delineation of the John Day Dam. The area contoured below the normal pool level (265 feet) in the immediate vicinity of the dam was in a stage of change at the time of photography with truck roads, construction and scattered fill. This area could have changed considerably by the time the area was flooded and new hydrography is desirable.

36. Offshore Details

(See items 34 and 35)

There is a stack with an elevation of 265 feet shown just offshore from the town of Goodnoe. The area was flooded when the pool was filled and it is presumed that this stack was destroyed prior to filling. It was referred to the field editor for verification.

37. Landmarks and Aids

A listing of positions for aids to navigation under construction or completed was furnished by the U.S. Coast Guard. Throughout the project there is a difference between the C.G. supplied positions and the positions obtained with the 1968 color photography. On T-13211 the lights agree with the exception of John Day River L5, 10. This variance was referred to the field edit for disposition.

Landmarks to be located by field edit.

38. Control for Future Surveys

None

39. Junctions

Junction was made to the east with T-13212 and is 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 through 45.

Inapplicable.

46. Comparison with Existing Maps

Comparison has been made with USGS Quadrangle Wasco, Oregon-Washington, scale 1:62,500, dated 1957. The quadrangle was enlarged to 1:10,000 so that detail could be checked.

Compilation instructions state that all detail and the 300 and 400 foot contours that have been changed above the 265 foot pool level should tie into the contours on the existing quads. Areas of change were recompiled and this tie made.

47. Comparison with Nautical Charts

Comparison was made with Nautical Chart No. 6159, scale 1:20,000, 3rd edition, dated June 1968, was compiled from John Day Lock and Dam Reservoir Drawings by the U.S. Corps of Engineers, dated 1965, using an interpreted line between 260 feet and 270 feet as the 265 foot pool level for the shoreline.

Items to be applied to Nautical Charts immediately.

This is a new chart compilation.

Respectfully submitted

Approved and Forwarded

J. C. Richter, Cartographer

K. N. Maki

FIELD EDIT REPORT

Chart Topography
Lake Umitilla (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 descrepancies were investigated and resolved.

Cliffs and bluffs are in evidence in the westerly portion of the project area. Generally the cliffs and bluffs are to 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 Blatock 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.

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.

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6718 (Lake Umatilla, Oregon and Washington)

T-13211

Biglow Canyon Cliffs Columbia River Emigrant Canyon 🛠 Goodnoe Helms Canyon 😽 Interstate 80N (Highway) John Day Dam ' ~ John Day River -J. U. Canyon * Lake Umatilla 🗸 Lepage Park Pyburn Hollow 🛪 Quinton Railroad Island Schofield Rapids 🗙 Spokane, Portland and Seattle (R. R.) State No. 14 (Highway) Towal Union Pacific (R. R.) / U. S. No. 30 (Highway

Approved by:

0

A. Joseph Wraight Chief Geographer

Cartographic Technician

* Feature not compiled

Prepared by:

REVIEW REPORT T-13211 June 1971

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 Wasco, Oregon-Washington, scale 1:62,500, dated 1957. Changes in the 300foot and 400-foot index contours due to new construction 4 were revised until a satisfactory junction with the published quads was realized.

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 Corps of Engineers, dated 1965, using an interpreted line between 260 foot and 270 foot 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

attleysi

This map complies with project instructions and meets the National Standards of Accuracy. T-13211 and the other six maps in this project will provide an excellent base for new charts 673 and 674 SC.

Reviewed by:

J. P. Battley. Jr.

Approved by:

Charles Theurer, Chief

Photogrammetric Branch

DUB

Coastal Mapping Division

SURVEY U.S. DEPARTMENT OF ENVIRONMENTAL SCIENCE SERVICES ADMICON TAL SCIENCE SERVICES ADMICON TALL SCIENCE SENDE

- Oregon

Plane Coordinates

FORM C&GS-16 (4-68) USCOMM-DC 50318-P08

DESCRIPTIVE REPORT CONTROL RECORD

COLUMBIA RIVER

DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 Ft. = 3048006 meter) N.A. 1927 - DATUM 2/21/68 FORWARD SCALE FACTOR DATE LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE 2,144,128.83 784,998.53 793,027.25 824,327.33 2,304,974.43 797,275.53 797,315.33 2,304,998.65 797,267.23 2,085,536.25 749,112.03 2,003,599.36 2,149,792.85 779,885.83 229,967,19 808,889,40 1,919,255.56 731,703.87 2,336,541.87 2,305,029.57 737,725.57 792,715.37 2,050,227.44 2,208,785.51 сиескер ву НРЕ SCALE OF MAP 78100 75100 71100 82100 87100 DATUM 1927 = Ξ = = = 2.0 PH-6718 SOURCE OF INFORMATION (INDEX) 74 25 23 77 74 73 Comp. = : = Comp. Comp. . 명 ъс Рв. -8d-PC P8. PC Pg. 년 년 DATE PROJECT NO. (Target) (Target) (Target) (Target) (Target) (Target) Target) (Target) (Target) (Target) 9161 (SDSA) MESSNER (USE) 1942 HERMISTON (USGS) HALE (USE) 1942 GRAF (USE) 1942 1941 (USE) 1945 (USE) 1942 SIX (USE) 1942 MOLE (USE) 1942 STATION 13211 (nsgs) (nsgs) MONTGOMERY RM 1 (USE) SII COMPUTED BY S.P.A. MAP T-S.P.B WILD AVIS DALE

FORM C&GS-16 (4-68) USCOMM-DC 50318-P68

COLUMBIA LER

DESCRIPTIVE REPORT CONTROL RECORD

U.S. DEPARTMENT OF ENVIRONMENTAL SCIENCE SERVICES ADW COAST AND GEODE

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COMPUTED BY IIS	DATE 2/21/68	<u>U</u>	CHECKED BY HPE	DATE 2/21/68

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

1 of

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED **4884888888**

\$

March 13

Umatilla, Oregon

I recommend that the following objects which have (Manachar) here inspected from seaward to determine their value as landmarks be charted on (deletedt fram) the charts indicated.

Richter ٦, The positions given have been checked after listing by

Melby m œ

	·								I'm a maria	Chi	Chief of Party.
					POSITION			METHOD	l	TAA	
1 (Washington-Oregon	68 1t.	5	LATITUDE*		LONGITUDE		LOCATION		OKE CH	CHARTS
CHARTING	DESCRIPTION	****		"	•	"	DATUM	SURVEY No.	LOCATION	H\$H(
		181		D.M. METERS		D.P. METERS				1	
JOHNE	JOHN DAY DAM LOWER BREAKWATER LT2	1769	45, 42	1247.2	120 42	240.3	N.A. 1927	r-1321. Photo	3/12/69		6159
J OHN L	JOHN DAY DAM LOWER GUIDEWALL LT4	024T	E4 54	15	120	1					
JOHN	JOHN DAY RIVER LIGHT 8	11.2771	74 54	ì	120 38	888-34		:	**		:
T OWAT.	томат, глент о	73.	7145 45	03.46	120 37	36.33			.		.
SOUALI	SOUALLY LIGHT 10	1773.1345	45 44		20			=	11		=
SQUALI	SQUALLY LIGHT 12	1774.1145	45 43	1784.	0 =120 33	1050.			1		Ŧ
GOODNC	GOODNOE ROCKS LIGHT 14	1776.11	76.1145.42	33.90	339.3120 31	38.36					E
GOODNC	GOODNOE ROCKS LIGHT 15	1777.1145	24 54	-18.44	120 30	95:33		=	=		E
GOODNC	GOODNOE ROCKS LIGHT 16		45 41	1553.	0 0120 30	282.0		H	z		ε
ROCK	ROCK CREEK LIGHT 18	1779.1145	45 41	-386.	<u>6</u> 120 27	53287		T-1321	2		:
ROCK	ROCK CREEK LIGHT 19	80.1	145 42		1.6120 27	33.81		=	н		
ROCK	ROCK CREEK LIGHT 21	1781.11	145 42	87.83	120 26	37875		п	11		=
FOUR (FOUR O'CLOCK LIGHT 23	2782.1145	45 42	725	12023	11.70		ŧ			=
SUNDAI	SUNDALE LIGHT 25	1783.1145	45 42	1571	4120 20	437.2		11	**		6160

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

* TABULATE SECONDS AND METERS

USCOMM-DC 36485-P64

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

STRIKE OUT TWO YRAFAELRYBA TO BE CHARTED 文章及表示是光格系

Umatilla. Oregon

. 19 69 March 19

I recommend that the following objects which have (MANX NAM) been inspected from seaward to determine their value as landmarks be

Riggers ij The positions given have been checked after listing by

Chief of Party. Melby m m ξ.

1					POSITION			000		-	ТЯАН
# 147.E	wasnington-Uregon	Photo	uy)	LATTUDE	LONG	LONGITUDE *		LOCATION	DATE	NO 88	CHARTS
CHARTING	. DESCRIPTION	BIGNAL	•	U.M. BETERS		D. P. METERS	DATUM	SURVEY No.	LOCATION		
TANK	Tank	68-E 6315	45 43	21.48	120 42	12,39 268.0	N.A. 1927	N.A. Photo 1927r-13211	\$/19/69	60	6159
W.GAB	<u> </u>	6329	4541	45.44	120 35	18.97	£				
W.GAB ELEVATOR	West Gabie,	6354	1454	50.04	120 20	16.99 367.6	=	T-13212	=		2
A	Letter"A" on Hillside	6361	4543	18.72 573.0	120 11	1103.3		1-13213	.		6160
ELEVATOR	Flashing red lt. atop Grain Elevator at Arlington	n 6361	E4 54	55.65	120 12	16.34 353.4	:	*	ε		=
ELEVATOR		I (0)	4545	10.92 B37.1	120 11	29.53		=	E		:
TANK (Elev.)	Elevated Water Tank	6438	45 50	85.80 827.4	119 42	05.84 126.0		r-13215	44		6161
N.GAB ELEVATOR	North Gable, Elevator	6452		153.12		9.69.6	11	r-13216	Ξ.		6162
TOWAVE	Microwave, skeleton steel tower ht.=149' (314')	6463	45 55	03.25	119 18	42.47	=	r-13217	44		:
TOWER	Microwave ht.=100' (380')		45 53	53.70 [312.4	119 29	13.74	.	=	=		=
			_								

USCOMM-DC 36485-P66 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 The data s i form. Revisions shall show both the old and new positions. considered for the charts of the area and not by individual field survey sheets. Info.mation under each column heading should be given. and nonfloating aids to navigation, if redetermined, shall be reported or landm

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