6480
6481a-b
6482

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
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D-12-1935
C&GS 6480

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic
~~*Hydrographic*~~ *Sheet No.s* A, B, BB & X

State OREGON

LOCALITY

COLUMBIA RIVER

Clatsop Spit to Smith Point

1935

CHIEF OF PARTY

Robert W. Knox

U. S. GOVERNMENT PRINTING OFFICE

Form 537a

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
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TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter A 6480

REGISTER NO.

State Oregon

General locality Columbia River

Locality Clatsop Spit to Point Adams

Scale 1:10,000 Date of survey July, 1935, 19

~~Vessel~~ Party No. 9

Chief of Party Robert W. Knox

Surveyed by R. S. Thompson

Inked by R W K

Heights in feet above to ground to tops of trees

Contour Approximate contour Form line interval feet

Instructions dated E. 0 b 26, 1935

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1928

Form 587a

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
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REG. NO.
Acc. No.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter B 6481 a

REGISTER NO.

State Oregon

General locality Columbia River

Locality Point Adams to Lewis and Clark River

Scale 1:10,000 Date of survey June, 1935, 19

Vessel Party No. 9

Chief of Party Robert W. Knox

Surveyed by R. S. Thompson

Inked by K. McBean

Heights in feet above ____ to ground to tops of trees

Contour Approximate contour Form line interval ____ feet

Instructions dated February 26, 1935, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1928

Form 537a

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
LIBRARY
MAY 16 1936
Acc. No.

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter BB 6481 b

REGISTER NO.

State Oregon

General locality Columbia River

Locality Lewis and Clark River to Smith Point

Scale 1:,0,000 Date of survey June, 1935, 19

Vessel Party No. 9

Chief of Party Robert W. Knox

Surveyed by R. S. Thompson

Inked by K. McBean

Heights in feet above to ground to tops of trees

Contour Approximate contour Form line interval feet

Instructions dated February 26, 1935, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1928

Form 537a

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
MAY 16 1936
REG. NO.
Acc. No.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter Y 6482

REGISTER NO.

State Oregon

General locality Columbia River

Locality Lewis & Clark and Youngs Rivers

Scale 1:10,000 Date of survey June and July, 1935

~~Vessel~~ Party No. 9

Chief of Party Robert W. Knox

Surveyed by R. S. Thompson

Inked by K. McBean

Heights in feet above to ground to tops of trees

Contour Approximate contour Form line interval feet

Instructions dated February 26, 1935, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1928

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEETS NOS.

"A", "B", "BB" & "Y"

Scale 1:10,000

COLUMBIA RIVER OREGON ASTORIA TO CLATSOP SPIT

Instructions dated Feb. 26, 1935 Surveyed by R. S. Thompson

GENERAL DESCRIPTION: The four topographic sheets listed above are a survey of the Oregon bank of the Columbia River from Clatsop Spit to Smith Point, Astoria, and include Youngs Bay and the lower portions of the Youngs and Lewis and Clark Rivers.

With the exception of that shown on Sheet Y (Lewis and Clark and Youngs Rivers), the territory along the river is low and fairly flat; low hills lie between and on either side of the two rivers. Except near the spit and ocean, the entire country is covered with a thick growth of small timber and brush.

CONTROL: The control used for the survey of these four sheets is from the triangulation scheme executed by this party during the past season. No old stations were used whose positions had not been re-determined.

SURVEY METHODS: Standard survey methods were used. Before field work was begun the instrument was adjusted, the rods were tested on a measured base and several four-meter rods were graduated so that longer half interval sights might be taken along the traverse.

No record of closing errors could be found, but the topographer, Mr. R. S. Thompson, Surveyor, periodically reported to the writer that closures were negligible.

It was understood from correspondence with the Office that an air-photo compilation of the Columbia River was contemplated; consequently no time was spent in running in non-navigable sloughs, etc., nor in locating with precision detail back of the shore line, except such objects as might prove useful in the air-photo compilation.

The U. S. Engineers plane coordinate grid system was overlaid on the sheets in full lines. It appears as if that Bureau will make continued use of the sheets in their periodic surveys of the channels. The position of the grid with respect to the geographic system was computed from the four corner intersections of the parallels and meridians in the case of each sheet, and checked by at least two triangulation stations whose positions had been reduced to the plane coordinate system.

MAGNETIC MERIDIAN: The declinatoire used in the determination of the magnetic meridians appearing on these sheets was standardized against compass declinometer No. 22 and found to have ~~an error~~ a correction ‡ of +53 minutes. The meridians* as they appear on the sheets should be moved eastward that amount. The measurements, however, appear to be erratic. The scaled values (corrected) are:

* Meridians erased and re-inked in Office with correction applied.

‡ See letter Feb 17/38 R. Wilknox, filed in Des. Repl. 7-6521b

At	East Jetty	sheet A	= 23° 47' east
	Hiway	common to sheets Y and BB	= 24 20
	Leahy	sheet Y	= 24 36

The value obtained at △ Tansy Point - about in the middle of the area covered by the above sheets - with a compass declinometer was 23° 01' east.

NOTES ON INDIVIDUAL SHEETS: The following part of this report covers notes on each of the several sheets and deals with specific items that are not of a general nature. The notes on each sheet have been typed separately.

Respectfully submitted:

Robert W. Knox

Robert W. Knox,
H. & G. Eng'r.

Sheet "A" - Clatsop Spit to Point Adams

COMPARISION WITH PREVIOUS SURVEYS: The area covered by sheet A was last surveyed in 1926, registry No. 4264. A comparision between the two sheets shows considerable change in the high water line, the most important being the narrowing of Clatsop Spit. Erosion has occured from sea and river sides. The spit was about 700 meters wide in 1926, compared with about 400 meters in July, 1935.

The shore line is changing continually, particularily during the winter storms, and some fear is felt that an exceptionally heavy and prolonged blow would cause the seas to cut through the spit. A tremendous amount of damage would result from such action.

To forestall such a catastrophe, a system of low drift fences have been built along the seaward slope of the spit, and within the last few months a systematic planting of a hearty type of grass has been attempted.

A fair junction - about 20 meters- with the 1926 work was obtained in the vicinity of the wreck of the Peter Iredale. It is doubtfull whether or not a better junction could be obtained north of the rocky beach line near Tillamook Head.

The U. S. Engineers periodically run cross sections of the spit and the high water line appearing on their surveys is determined in that manner. The writer was informed that "about the 10-foot contour" was used as the high water line. It is believed that this curve is appreciably above the high water line.

Time did not permit the re-survey of Swash Lake, but it is doubtful if any material change in its form has taken place since 1926.

The area south of the southern end of the shoal bay formed by Clatsop Spit is low and marshy, the high water line being extremely vague. A field inspection of this area was recently made with the idea of completing the line by sextant fixes. Such a method was found to be impossible and it is believed that the only satisfactory method would be to carry levels with the plane table.

GEOGRAPHIC NAMES are correct and complete as they appear upon the published chart.

LANDMARKS FOR CHARTS will be submitted under separate cover.

STATISTICS:

Statute miles of shore line	=	16.1
Statute miles of railroad	=	3.8

Sheet B - Lewis and Clark River to Point Adams. T-6481a

COMPARISION WITH PREVIOUS SURVEYS: The area covered by sheet B was last surveyed in 1926, registry number 4263 and 4264, the former extending from the eastern limits of the sheet to the Skipanon Waterway and the later from there to the western limits of the sheet.

Sheet 4263: The agreement between these two sheets is fair, the 20 or 30 meter differences in the location of the shore line probably being due to the interpretation of the low marshy shore line by the two topographers.

The agreement between the two surveys in the vicinity of the Skipanon Waterway is not good, each jetty now appearing about 7 meters west of their original location. It has been determined that the jetties have not been rebuilt since they were first constructed. The bromide copy of the original sheet used in the comparision is somewhat distorted, and it may be that much of the apparent discrepancy is due to this cause.

Sheet 4264: With the exception of the Skipanon Waterway, as noted above, the agreement between sheet 4264 and the present sheet is considered very good. There is a slight difference in the representation of the large abandoned pier at Fort Stevens, but as the pier is in ruins it is possible that it now presents a different outline than it did in 1926.

charted Skipanon R. inside

LOW WATER LINE: In order to make the sheet complete, the lower-low water line was transferred to it from the smooth hydrographic sheet and the proper type of bottom inked in. The data for this was obtained from notes of the topographer and from notes in the sounding volumes.

GEOGRAPHIC NAMES are as they appear on chart No. 6151.

LANDMARKS FOR CHARTS will be submitted under separate cover.

STATISTICS:

Statute miles of shore line	=	13.2
Statute miles of railroads	=	5.4
Statute miles of roads	=	0.9

Sheet BB - Lewis and Clark River to Smith Point T-6481b

COMPARISION WITH PREVIOUS SURVEYS: The area covered by sheet BB was last surveyed in 1926, registry No. 4263. In general, the agreement is excellent, the few differences in the shore line can most probably be attributed to a) artificial changes, b) recession of the shore line due to the wash of tugs or c) differences in intespretation of the high water line in the flat, marshy areas by the two topographers. The more important changes are:

1) A small bight in the vicinity of Smith Point has been filled in.

2) There is a considerable difference in the delineation of the high water line on the east side of Youngs River between Station Vic and Dad, probably due to interpretation, as the area is very flat and marshy.

3) The above is true in the vicinity of the south side of Youngs Bay between ⊙Vet and the highway bridge.

LOW WATER LINE: In order to make the sheet complete, the lower-low water line was transferred to it from the smooth hydrographic sheet and the proper type of bottom inked in. The data for this was obtained from notes of the topographer and recorded bottom specimens from the sounding volumes.

GEOGRAPHIC NAMES: Geographic names are as they appear upon the published chart with one addition:

Daggett Point	A well established local name

LANDMARKS FOR CHARTS will be submitted under separate cover.

STATISTICS;

Statute miles of shore line	=	13.2
Statute miles of railroads	=	0.9
Statute miles of roads	=	5.7

Sheet Y Lewis and Clark and Youngs Rivers. T-6482

COMPARISION WITH PREVIOUS SURVEYS: There are no previous surveys covering this area in its entirety. Sheet registry No. 4263, surveyed in 1926, shows about a mile of the Lewis and Clark. On the east side of this portion of the river the agreement is good. On the west side, the present survey shows that the bank has been washed away, south of ⊙ Sod, an average distance of about 50 meters. Only a few hundred meters of the west side of Youngs River is common to the two surveys.

LOW WATER LINE: In order to make the sheet complete, the lower - low water line was transferred to it from the smooth hydrographic sheet and the sandy, muddy or marshy portions inked in with their proper symbol, the data for which was obtained from notes of the topographer, and from bottom specimens as noted in the sounding volumes. The buoy appearing on the topographic sheet will be found to have identical locations with those on the smooth hydrographic sheet.. No buoys on this sheet.

GEOGRAPHIC NAMES: In addition to the names appearing on the chart, ie., Lewis & Clark and Youngs Rivers, the following names are well established and it is recommended that they be accepted:

1) Walluski River, emptying into the Youngs River near △ Nurnberg. already on charts 5902 + 6002 but not on 6151

2) Tucker Creek, emptying into the Youngs River Near △ Oman

LANDMARKS FOR CHARTS will be submitted under separate cover

STATISTICS:

Statute miles of shoreline	=	19.8
Statute miles of roads	=	2.1

Plane-table Positions
Sheet A

Object or name of signal	Latitude °	'	m	Longitude °	'	m	Remarks
Observation Tower	46	12	786	123	57	1089	fire control tower
J-1 USE	46	12	1576	123	58	158	end of groin
J-2 USE	46	13	239	123	58	1126	end of groin
Bar	46	13	971	123	59	753	marked hydrographic station
Black Tank USE	46	13	1067	124	00	896	low black wooden tank on jetty
Dolphin	46	12	1619	123	58	810	
Sea Thrush	46	14	887	124	01	632	mast of portion of wreck
Dolphin	46	13	362	123	59	549	
Ire	46	10	1596	123	58	1009	marked hydrographic station
Peter Iredale	46	10	1318	123	58	1021	bowsprit of wreck

scaled by RWK
ck KMcB

RWK

Plane-table Positions
Sheet B

Object or name of signal	Latitude °	'	m	Longitude °	'	m	Remarks
Oak	46	10	286′	123	54	1254′	Mill stack
East gable barn	46	09	1818′	123	54	562′	
East gable house	46	10	227′	123	54	631′	
Flavel Rear Range	46	11	1209′	123	55	1265′	
Flavel Front Rge	46	11	1159′	123	55	684′	
Tansy Pt Rear Range	46	11	533′	123	55	874′	
Tansy Pt Front Range	46	11	585′	123	55	456′	
Rede	46	12	41′	123	56	394′	River gable red shack
Gar	46	12	285′	123	56	732′	East gable boat house
Monument	46	12	377′	123	57	262′	Boundry monument Fort Stevens
Stev	46	12	644′	123	56	1271′	Marked hydrographic signal
Nap	46	09	1766′	123	53	1237′	do
Oil USE	46	10	1553′	123	53	884′	Stack fish-oil house
Observation tower	46	12	786′	123	57	1085′	Coast Guard tower, Ft. Stevens
Tall stack USE	46	10	598′	123	54	1018′	Mill stack, Warrenton
Front FR USE	46	10	33′	123	54	1100′	Skipanon waterway front range
Middle Stack USE	46	09	1774′	123	55	75′	Middle of three mill stacks
Skipanon Waterway west light	46	11	119′	123	54	540′	
Cable	46	12	685′	123	57	37′	Cable crossing sign
Prominent dead tree	46	09	1376′	123	52	773′	

scaled by RWK
ck by KMcB
✓ by Pelc.

Plane-table Positions
Sheet BB

Object or name of signal	Latitude °	'	m	Longitude °	'	m	Remarks
Kab	46	09	1386 ✓	123	50	04 ✓	north gable of barn
Vic	46	09	1048 ✓	123	48	544 ✓	marked hydro. station
Smith	46	11	188 ✓	123	51	881 ✓	do
Bay	46	10	1225 ✓	123	51	171 ✓	do
Elk	46	10	1541 ✓	123	51	731 ✓	gable red warehouse
Dig	46	10	1366 ✓	123	51	424 ✓	gable shed
Cur	46	10	991 ✓	123	50	1196 ✓	gable of shack
Doc	46	10	428 ✓	123	49	294 ✓	end of pier (SW corner) marked by sq of gal. iron
Not	46	09	1229 ✓	123	49	941 ✓	north gable barn
Jam	46	09	1488 ✓	123	48	1015 ✓	pile
Her	46	09	1256 ✓	123	48	1045 ✓	pile
Cod	46	09	995 ✓	123	48	1077 ✓	pile
Mid	46	09	745 ✓	123	48	1116 ✓	pile
Wun	46	09	373 ✓	123	49	108 ✓	pile

scaled by RWK
ck by KMcB

✓ by Rust.

Plane-table Positions
Sheet Y

Name of signal or object	Latitude °	'	m	Longitude °	'	m	Remarks
Pi	46	09	190′	123	51	674′	center old swing-bridge pier
Dyer	46	08	1167′	123	51	936′	marked hydrographic station
Dog	46	07	406′	123	52	677′	black tank
River gable red barn	46	07	672′	123	51	771′	
River gable unpainted barn	46	06	1330′	123	51	319′	
Prominent dead tree	46	06	842′	123	52	19′	
River gable red barn	46	07	107′	123	49	370′	
Span	46	06	1164′	123	47	942′	marked hydrographic station
Guk	46	06	1065′	123	48	252′	north gable barn
Wal	46	08	1478′	123	47	624′	marked hydrographic station
Bar	46	06	892′	123	48	871′	east gable barn
Flagpole	46	09	178′	123	47	910′	on grounds of County Farm
Tat	46	06	1081′	123	47	1008′	long span crossing power pole
Kus	46	09	300′	123	51	850′	cable crossing sign
Fad	46	09	236′	123	51	555′	cable crossing sign
Gam	46	09	21′	123	51	701′	river gable small shack
Uno	46	07	841′	123	52	682′	down stream gable red shack
Win	46	07	99′	123	51	571′	window in gable of house
North gable barn	46	06	600′	123	51	708′	

scaled by RWK
ck by KMcB

′ by Ruk.

APPROVAL OF CHIEF OF PARTY

Topographic sheets A, B, BB and Y have been inspected and approved by me. The field work was done under my occasional supervision; the office work in part under by supervision and in part by myself. No additional work is considered necessary.

Robert W. Knox,
H. & G. Eng'r,
Chief of Party.

	Remarks	Decisions
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2	chs name "Clatsop" verified in Ch. Geog. Names.	
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M 234

GEOGRAPHIC NAMES

Survey No. 6480

Name on Survey	A On Chart No.	B On previous survey No. 6151 Chart 6152	C On U.S. quadrangle Maps 1:62,500	D From local information	E Ur. Geog. Names On-local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K T 6480	
Pacific Ocean	*		✓							1
Clatsop Spit	*		✓	—	✓			✓		2
Columbia River	*	✓	✓	—	✓			✓		3
Fort Stevens			✓	—	✓	✓		✓	*	4
Pt. Adams	*			—	✓					5
South Jetty	*			—						6
Jetty Sands	*							✓		7
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Names underlined in red approved by C.P.N. on 6/8/36

M 234

	Remarks	Decisions
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M 234

GEOGRAPHIC NAMES

Survey No. 6481-A

Name on Survey	A On Chart No.	B On previous survey No. 6151 Cht	C On U.S. quadrangle Maps 6152 Inset	D From local information	E Charts	F On local Maps 5402 & 6002	G P.O. Guide or Map	H Rand McNally Atlas	K U.S. Light List Or. Geog. Names	
Columbia River	*	✓		✓	✓	✓	✓	✓	✓	1
Pt. Adams	*			✓	✓	✓	✓		✓	2
Hammond	*			✓	✓	✓	✓		✓	3
Tansy Pt.	*				✓			✓		4
Warrenton	*		✓		✓	✓	✓		✓	5
Oregon	*		✓		✓		✓		✓	6
Fort Stevens	*		✓				✓		✓	7
Skipanon River	*				✓				✓	8
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Names underlined in red approved by C.R.T. on 6/9/36

M 234

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M 234

GEOGRAPHIC NAMES

Survey No. 6481-B

Name on Survey	A On Chart No. 6151	B On previous survey No. H-5975-6	C On U.S. quadrangle Maps 1964	D From local information	E On Local Maps 5902, 6002	F	G P.O. Guide or Map	H Rand McNally Atlas	K U.S. Light List Dir. Geog. Names	6481-B
Oregon	*				✓		✓		✓	1
Smith Point	*			✓	✓				✓	2
Youngs River	*		✓	✓	✓		✓		✓	3
Daggett Point		✓		✓						* 4
Youngs Bay	*			✓	✓		✓	✓	✓	5
Lewis and Clark River	*		✓	✓	✓		✓		✓	6
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Names underlined in red approved by C.R.N. on 6/11/96

M 234

	Remarks	Decisions
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GEOGRAPHIC NAMES

Survey No. 6482

Name on Survey	A On Chart No. 6151	B On previous survey No. H 7975-6	C On U.S. quadrangle Maps 1946	D From local information	E Charts 5402-6002	F	G P.O. Guide or Map	H Rand McNally Atlas	K U.S. Light List	Or. Geog Names 7682
Lewis and Clark River	*	✓	✓	✓			✓		✓	1
Youngs River	*	✓	✓	✓			✓		✓	2
Walluski River		✓		✓	*				✓	3
Tucker Creek		✓		✓					✓	* 4
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Names underlined in red approved OR 6/9/96 by [illegible]

M 234

6486-2

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~XXXXXXXXXXXXXXXX~~

~~No. XX~~
No. T 6480
6481-a
6481-b
6482

received MAY 16 1956
registered
verified MAY 22 1956
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
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RETURN TO

82	

C. K. Green

T

REVIEW OF TOPOGRAPHIC SURVEY No. 6480

Title (Par. 56) Clatsop Spit to Point Adams, Oregon

Chief of Party R.W. Knox Surveyed by R.S Thompson Inked by R.W. Knox

Ship Field Party #9 Instructions dated Feb 26, 1935 Surveyed in July 1935

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) Failed to put date of triangulation stations on sheet. They do not appear in the 1935 list of geographic positions
2. The character and scope of the survey satisfy the instructions. ✓

3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓

4. ~~The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)~~

5. ~~The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.)~~

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) None Submitted

7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓

8. The representation of low water lines, ~~reefs, coral reefs and rocks~~, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) ✓

9. ~~Rocks and~~ other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)

See reverse side

10. ~~The span, draw and clearance of bridges are shown. (Par. 16e.)~~

11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~

12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

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Paragraph 9

T335 (1851), T317 (1850), T1112 (1868)
H250 and H273 (1851)

These former surveys were very general and are of no value in checking the present survey. T6480 supersedes these surveys in part.

T4250, T4264 (1926)

These two surveys of 1926 cover the present survey. They are adequately compared on Page 3 of the Descriptive Report. As stated, the detail to Swash Lake was not resurveyed and must be accepted as shown on the 1926 survey. The Clatsop Spit is changing very fast according to a comparison of T4250 and T4264 with the present survey.

T6480 supersedes T4250 and T4264 in part.

Chart 5902 is in good agreement with the present survey, considering the large difference in scale.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.)

14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~

15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) *None Submitted*

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.)

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) *Declinatoire error +53'* *

* *Meridian on sheet corrected for declinatoire error.* C.R. Mar 2, 1938.

18. The geographic datum of the sheet is *N.A. 1927 (Unadjusted)* and the reference station is correctly noted. (Par. 34.)
Values from field computations used.

19. Junctions with contemporary surveys are adequate.
Joins T 6481a (1935) on the East

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.)

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.)

22. No additional surveying is recommended.

23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~

24. Remarks:

Reviewed in office by Chas. A. Bush Jr. June 23, 1936

Examined and approved:

C. K. Green — Chief, Section of Field Records

Fred. L. Peacock — Chief, Section of Field Work

L. O. Colbert — Chief, Division of Charts

G. Rude — Chief, Division of Hyd. and Top.

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REVIEW OF TOPOGRAPHIC SURVEY No. 6481a

Title (Par. 56) Point Adams to Lewis & Clark River, Oregon

Chief of Party R.W. Knox Surveyed by R.S Thompson Inked by K. McBean

Ship Field Party #9 Instructions dated Feb. 26, 1935 Surveyed in June 1935

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓

2. The character and scope of the survey satisfy the instructions. ✓

3. The control and closures of traverses were adequate. (Par. 12, 29.) No closures listed

4. ~~The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)~~

5. ~~The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.)~~

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) None Submitted

7. High water line on marshy ~~and mangrove coast~~ is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓

8. The representation of low water lines, ~~reefs, coral reefs~~ and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) ✓

9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)

See Reverse Side

10. The span, draw and clearance of bridges are not shown. (Par. 16c.)

11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~

12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

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Paragraph 9

H250 - H273 (1851)

These two surveys are primarily hydrographic surveys and are of very little value in making a comparison with the present survey. The scale of these two surveys is 1:20,000 where as the p resent survey is on 1:10,000. Details have changed materially in the 84 years between the two surveys of 1851 and T6481-a, many of them man-made.

T317 (1850 and T335 (1851)

These two former surveys are very general and are of little value in making a comparison with the present survey. There are many man-made changes. An inspection would indicate that the South shore of the Columbia River had receded somewhat in spots. At other points mouths of streams have been entirely closed off.

T1123 (1868)

This survey covers only a very minute portion of East and of the present survey. The shore apparently has receded a little and the L.W. line has changed by having receded also.

T1112 (1868)

This survey is of very little value in making a comparison with the present survey. Practically the entire extent of this survey has been changed or affected by man-made changes. The Tansy and Alder Creeks have a pparently been closed off. This is due to changes along the Skipanon Waterway. This construction also affected the area East and South of the Waterway. The H. W. line of that portion of Pt. Adams shown on the present survey has evidently built out somewhat. It is difficult to make an accurate comparison due to the lack of control on the T1112 (1868).

T4263 (1926) and T4264

The comparisons of these two surveys with the present survey is considered adequate. The principle changes are the Skipanon jetties and changes affected by these jetties.

T6481-a supersedes H250, H273, T317, T335, T1123, T1112, T4263 and T4264.

A comparison of the present survey with chart 6151 shows no important changes other than discussed under T4264-4 above.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ~

14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~

15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) None Submitted

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) ~

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) No magnetic meridian shown (value for one tri sta. ~~also~~ given in D.R. (page 2)

18. The geographic datum of the sheet is N.A. 1927 (Unadjusted) and the reference station is correctly noted. (Par. 34.)

19. Junctions with contemporary surveys are adequate. ~
Joins T 6480 (1935) on the West Joins T 6484 (1935) on the South
Joins T 6481b (1935) on the East

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ~

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ~

22. No additional surveying is recommended. Several signals in the water should be cleared up

23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~ ~

24. Remarks:

Reviewed in office by Chas. R. Burch Jr. July 3, 1936

Examined and approved:

C. H. Green. Fred. L. Peacock
Chief, Section of Field Records Chief, Section of Field Work

L. O. Colbert. G. Rude
Chief, Division of Charts Chief, Division of Hyd. and Top.

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REVIEW OF TOPOGRAPHIC SURVEY No. 6481b(1935) Field No. BB

Title (Par. 56) Lewis + Clark River to Smith Point, Columbia River, Oregon.

Chief of Party R.W. Knox Surveyed by R.S. Thompson Inked by K. McBean

Ship ——— Instructions dated Feb. 26, 1935 (R.W. Knox) Surveyed in June 1935

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓

2. The character and scope of the survey satisfy the instructions. ✓

3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓

4. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.) ✓
except that the contour interval was not indicated on the Title Sheet.

5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) ✓

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) None submitted. ✓

7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓

8. The representation of low water lines, ~~reefs, coral reefs and rocks, and legends pertaining to them~~ is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) ✓

9. ~~Rocks and other~~ important offshore details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓
See note on back

10. The span, draw and clearance of bridges are not shown. (Par. 16c.) ✓
Values not listed.

~~11. Locations and elevations of summits are given. (Par. 19, 51.)~~

~~12. The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

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Paragraph 9, continued.

a. T-4263(1926) shows a sunken wreck and an abandoned trestle (both charted) in the vicinity of lat. 46°10.9, long. 123°49.7' which are not shown on the present topographic or hydrographic sheet. The trestle falls within a mud flat area on the present survey. The wreck falls in depths of 6 to 32 feet on H-5976(1935) and between sounding lines spaced 50 m. apart. There is no certainty that the wreck has been removed nor that the trestle has entirely disappeared. A definite statement regarding the present status of these features has been requested from the field party.

These features extant and have therefore been carried forward. (See letter attached to D.R. of H-5976). 10/1/36 H.W.M.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) except that the errors of closure were not listed.

14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~

15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) Not accomplished.

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.)

17. The magnetic meridian was not shown. ~~and declination was checked.~~ (Par. 17, 52.) However, values at stations on Hiway are listed in the Descriptive Report (page 2).

18. The geographic datum of the sheet is North American 1927 (unadjusted) and the reference station is correctly noted. (Par. 34.)

19. Junctions with contemporary surveys are adequate.
The junction on the NW will be considered when that work is received from the field.

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.)

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.)

22. No additional surveying is recommended.

23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~

24. Remarks:

See Note on back.

Reviewed in office by Harold W. Murray June 26, 1936

Examined and approved:

C. K. Green
Chief, Section of Field Records

Fred. L. Peacock
Chief, Section of Field Work

L. O. Colbert
Chief, Division of Charts

G. Rude
Chief, Division of Hyd. and Top.

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Paragraph 24, continued.

a. The character of several features such as dolphins and remains of old docks & shipyards were not indicated by descriptive notes. However, a number of these identical features were described on H-5976(1935) and T-4263(1926). In order to complete the present survey, these descriptions have been added in black.

b. Aids to navigation will be considered in the reviews of H-5975(1935) and H-5976(1935).

REVIEW OF TOPOGRAPHIC SURVEY No. 6482(1935) Field No. Y

Title (Par. 56) Lewis + Clark and Youngs Rivers, Columbia River, Oregon

Chief of Party R.W. knox Surveyed by R.S. Thompson Inked by K. McBean

Ship ——— Instructions dated Feb. 26, 1935 (R.W. Knox) Surveyed in June-July 1935

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓

2. The character and scope of the survey satisfy the instructions. ✓

3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓

4. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)
except that the contour interval was not indicated on the title sheet.

5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) ✓

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) No maps submitted. ✓

7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓

8. The representation of low water lines, ~~reefs, coral reefs and rocks~~, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.)

9. ~~Rocks and other~~ important offshore details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓

10. The span, draw and clearance of bridges are not shown. (Par. 16c.) ✓
Values not listed.

11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~

12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

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13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) except that the errors of closure were not listed.

14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~

15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) Not submitted on Form 524.

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.)

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) An error of +53 minutes was found (See D.R. page 2). The meridians were on the smooth sheet was corrected in the office

18. The geographic datum of the sheet is North American 1927 (unadjusted) and the reference station is correctly noted. (Par. 34.)

19. Junctions with contemporary surveys are adequate.

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.)

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.)

22. No additional surveying is recommended.

23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~

24. Remarks:

Reviewed in office by Harold W. Murray June 27, 1936

Examined and approved:

E. F. Green
Chief, Section of Field Records

Fred. L. Peacock
Chief, Section of Field Work

L. O. Colbert
Chief, Division of Charts

G. Rude
Chief, Division of Hyd. and Top.

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