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4065b

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

# DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. ..... Office No. 4065A-b

LOCALITY

State Maryland

General locality Patapsco River

Locality Baltimore, Md.

Harbor

1924

CHIEF OF PARTY

Robert J. Auld

LIBRARY & ARCHIVES

DATE .....

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Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

11—5613

*State:* Maryland

# DESCRIPTIVE REPORT.

Topographic *Sheet No.* 4065 a+b

LOCALITY:

Patapsco River

Baltimore Harbor

~~Fort McHenry to Sparrows~~

~~Point~~

*1924*

CHIEF OF PARTY:

Robert J. Auld

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No.

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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON October 21, 1924.

DESCRIPTIVE REPORT

To accompany Topographic Sheet of Baltimore Harbor extending from Fort McHenry to Sparrows Point including Middle Branch and Curtis Creek.

The area covered by the topographic sheet described in this report includes the portion of Chart No. 545, Baltimore Harbor, south of Fort McHenry. A separate topographic sheet covers the portion known as Northwest Harbor or Inner Basin.

The purpose of the topographic survey was for the revision of shoreline and other features shown on the chart. As chart 545 is a compilation of data from various sources sufficient topographic control was desired in the use of any additional data. As stated in the original instructions of February 1, 1924, any surveys which could be obtained from the city, railroads or government bureaus, were to be examined in the field with respect to accuracy and reliability of detail.

On February 6, 1924, various sources of information were visited in Baltimore and it was found that much data in the nature of recent surveys could be obtained from the Topographic Survey of Baltimore City. Triangulation points belonging to the Coast and Geodetic Survey and Army Engineer Corps were used for traverse control by the city. It was found that usually one or more of these points plotted on each of the sheets or sections of the city's survey. A system of coordinates based on Washington Monument serves to orient and locate features.

After consultation with the Washington Office, it was decided to execute topography only in areas affected by changes not shown by the city's survey and to furnish points of control for the proper orientation and reduction of their sheets. After the topography necessary had been accomplished, instructions were received on March 24, 1924 to execute a hydrographic survey of Baltimore Harbor. This necessitated some additional amount of topography to locate signals for hydrographic use.

The following blueprints were furnished by the Topographic Survey of Baltimore which cover the area noted in this report: Sheets 3S1W, 3S3E, 3S4E, 3S5E, 4S1W, 4S1E, 4S2E, 4S3E, 5S1E, 5S2E, 5S3E, 6S2E, 6S3E, 6S4E, 7S3E, 7S4E, 7S5E.

Sheets cover 1000 foot squares and are designated with respect to center of coordinates. The location of these sheets is shown on chart 545 used as an index map. This index map also shows the location

of the points determined by triangulation. Many of these points were determined by the Engineer Corps but their positions have been computed by the Coast and Geodetic Survey from data submitted. The blueprint obtained from Bethlehem Steel Co. shows the topography of Sparrows Point. Blueprints obtained from the Baltimore and Ohio Railroad, Pennsylvania Railroad and Western Maryland Railway overlap the area of this sheet but do not contain data which has not been obtained from other reliable sources. These railroad blueprints will be discussed in other reports.

In the area surrounding Port Covington, the marine terminal of the Western Maryland Railway, the topography was inaccurate both on the north and south side of the Patapsco River. This area bounded by Latitude 39° 14' - 16' and Longitude 76° 34'.8 - 38' was traversed in the field and shows the outline of the shore about March 1, 1924. The south shore is owned by the Arundel Corporation, a sand and gravel concern. Their dredges are working continuously in this locality both along the shore and in the river. They are cutting away the land at a rate of twenty acres a year and leaving about 16 to 18 feet of water in place. Their dredging operations have also decreased the amount of shoal area in the vicinity and numerous pot holes were developed in the hydrography. In this locality an aerial photograph taken occasionally ought to furnish good material for revision purposes. On the north side, Baltimore City through its Harbor Board is developing what is called "McComas St. Terminal". At present this consists of a bulkhead in front of which a channel was dredged in the soft mud. This channel was then filled with sand and this sand piled up 20 or more feet above the surface of the water. Soundings indicate there is 90 feet of mud or soft silt and the intention of the Harbor Board Engineers is to keep piling sand up until the weight of sand forces out the mud and after settlement will give bearing for the piers which it is proposed to build. This development, however, is apt to be slow and until completed little use will be made of the docks west of the Bethlehem Shipbuilding Corporation.

In examining the sheets of the City Topographic Survey, valuable assistance was obtained through the use of a set of aerial photographs taken from an airplane of the Navy Department. These photographs show the land features very distinctly. The Chief Engineer of the Harbor Board of Baltimore was so interested in the excellent impression which one can conceive of Baltimore Harbor through the photographs that he secured permission from the Navy Department to reproduce them. A copy of this book of pictures with a key map is in the files of the Library as G X 3723. A full set of these photographs which was received from the Navy Department forms a part of the data accompanying the topographic sheets of Baltimore Harbor.

AB 3985

On the east side of Patapsco River from Colgate Creek to Bear Creek some changes had occurred in topography. No maps could be secured

AB 3985

of this section so a traverse was run from triangulation stations St. Helena to Bear. Station Dundalk was recovered and azimuth and distance checked from numerous three point solutions. From Station Bear the topography was extended a short distance to include some changes which had occurred on the west side of Bear Creek and also to show the establishment of a boat yard in Peach Orchard Creek by Unger & Mahon.

As noted previously a blueprint of Bethlehem Steel Company showing the features of Sparrows Point was obtained. Examination of this blueprint showed that sufficient control points were indicated so that it could be oriented properly as part of the chart. A pantograph reduction of this print was made by the field party for use on the hydrographic sheet and little or no error was apparent in the agreement of positions determined from sextant angles with the topography of the blueprint. Some minor variations in shoreline will be noted with regard to the slag dump but such is to be expected.

Control for hydrography was carried down Curtis Creek from Stations Smith and Creek by means of plane table triangulation aided by resections upon station Dodge and other more distant stations. The shoreline was noted only in places where changes were seen to have taken place. It is probable that the U. S. Coast Guard have a map of their depot at Arundel Cove but it was not possible to obtain such at the depot. The Ordnance Depot of the U. S. Army on Curtis Creek is still in use and the detail is given quite accurately on the present edition of chart 545. South of the draw bridge on the west side of Curtis Creek are two fertilizer plants, one of which has a dredged slip with a covered dock on the south side adjacent to the warehouse. North of the drawbridge is Smith's boat yard with the American Oil Company next to the north having acquired the property formerly owned by Stoll. Station Curtis is located on this property but has been mutilated and it is probable that it will be destroyed. Another oil company which it is believed is termed the Baltimore Terminal Warehouse Corporation has acquired the property north of the American Oil Company fronting both on Curtis Creek and extending back on Cabin Branch beyond the B. & O. Railroad. Tanks are being constructed on this property and pipe lines extending from them to the pier which is shown on the topographic sheet. The face of the U. S. Alcohol Company's dock is erroneously shown on the City Topographic Survey. An extensive fill has been made off Fishing Point by the Mexican Petroleum Company which is shown on the topographic sheet. The shoreline is carried on the sheet to the Prudential Oil Company wharf as it was desired to locate the range established by them. This range is marked by triangulation day marks with red lights for night use.

Several range marks were located on this sheet. All were privately established marks, some of which it is believed were located with the assistance of the Lighthouse Service. The Maryland Drydock Company and Weyerhauser Timber Company ranges were obtained by setting up the planetable in the rear and on the range lines. These ranges as well as the Prudential Oil Company range are described in the Buoy and Light List of the Lighthouse Service. A range used by the Coast

Guard Service for entering Arundel Cove consists of a cluster of piles shown as signal Dolphin on the topographic sheet and the southeast corner of a building usually designated as the Coast Survey boathouse. Buoys consisting of short spars also mark the channel for entering. Another private range noted on the topographic sheet is one erected by Unger and Mahon marking a mid-channel course in Peach Orchard Creek. This range was to be fitted with lights but had not been installed at the time the survey was made. The location of two beacons on the property of the Mexican Petroleum Company was obtained by sextant angles in the progress of hydrographic work. These beacons do not seem to mark any channel line but from a study of the hydrography would seem to indicate the ~~western~~ eastern limit of dredged area. It is not believed to be necessary to describe the ranges used to mark the channels dredged and maintained by the U. S. Engineer Corps. The range for Curtis Bay channel was determined, however, because a study of the U. S. Engineer data showed that it did not follow the exact center line of the channel.

In compiling the sheets of the City Topographic Survey and the other sources of information, use was made of a pantograph in the Baltimore office of the U. S. Engineer Corps. When these reductions were applied to the hydrographic field sheet excellent agreement was found among the control points and when later checked by sextant positions in the hydrographic work no serious discrepancies were noted. On the various blueprints the control points are noted and it is believed that the information given there will be clearer than attempts to describe the points in this report. The planetable positions together with triangulated points served to furnish a very rigid system of control for the hydrography and it was possible to shift from one fix to another without noting any discrepancies in position. As much of the hydrographic work was done by means of sensitive ranges any shifting due to poor location of signals could be readily noted.

A list of planetable positions and statistics are furnished with this report. This list includes such features as may be deemed important for landmarks and from the topographic sheet, their relative importance can be determined.

R. J. Auld

Objects which can be used as landmarks are underscored

# Planetable Positions for Baltimore Harbor

4065 a

See letter Apr 8 1924

| Object | Lat. | D.M. | Long. | D. P. | Height | Remarks |
|---|---|---|---|---|---|---|
| North × | 39- 14 | 1368 | 76 -34 | 324 | 8 | Corner of Pier |
| Near × | 39 -14 | 944 | 76 - 34 | 279 | 30 | Small steel stack |
| Ty × | 39 -14 | 953 | 76 -34 | 16 | 30 | Flagpole, on cupola on end of F.S. Royster wharf |
| Prud. | 39 -14 | 734 | 76 -33 | 1297 | 18 | Front range light on Prudential Oil Co. Wharf |
| Prudential Oil Co. Rear light | 39 -14 | 563 | 76 -34 | 92 | 25 | Rear range light |
| Stack Prud. Oil Co. | 39 -14 | 344 | 76 -34 | 555 | 180 | Eastern one of two stacks of equal height |
| (Dolphin) × | 39 -14 | 428 | 76 -33 | 1188 | 6 | Pile dolphin, not named. |
| Ocean | 39 -13 | 1832 | 76 -34 | 1021 | ~~100~~ 135 | Black elevated water tank Interocean Oil Co. |
| Wag | 39 -13 | 1677 | 76 -33 | 972 | 50 | Small black steel stack. |
| Red | 39- 13 | 1527 | 76 -34 | 208 | 60 | Red water tank near Wagners Church . |
| Mex | 39 -13 | 1281 | 76 -33 | 1424 | ~~90~~ 100 | Yellow brick chimney Mexican Petroleum Corp. |
| Mid × | 39 -13 | 1232 | 76 -34 | 244 | -- | In definite object. |
| Yel | 39 -13 | 1199 | 76 -34 | 502 | 40 | Chimney on house. |
| Tex | 39 -13 | 1207 | 76 -34 | 167 | 150 | Yellow brick stack of U.S. Asphalt CO. ( Texas 6 |
| Sue + | 39 -13 | 1072 | 76 -34 | 684 | — | Hydrograhic signal |
| Gaso + | 39 -13 | 959 | 76 -34 | 89 | 20 | Gasoline tank on end of dock |
| Range Beacon | 39 -13 | 898 | 76 -33 | 1304 | 15 | Mexican Petroleum Corp. |
| Range Beacon | 39 -13 | 842 | 76 -33 | 1288 | 15 | Mexican Petroleum Corp. |
| Der | 39 -13 | 849 | 76 -33 | 1226 | 15 | Frame of derrick on dock Mexican Petroleum Corp. |
| Band o | 39 -13 | 798 | 76 -34 | 1243 | 50 | Red water tank , B.& O. R.R. Curtis Bay |
| Do | 39 -13 | 752 | 76 -34 | 1232 | 200 | Brick chimney, B.& O. R.R. |
| Front Range Lt. | 39 -13 | 479 | 76 -34 | 874 | 20 | Curtis Bay Channel. |
| Rear Range Lt. | 39 -13 | 469 | 76 -34 | 1223 | 30 | Curtis Bay Channel. |
| Copper | 39 -13 | 308 | 76 -34 | 1294 | 150 | Brick chimney, Copper work U.S. Alcohol CO. |
| Alco | 39 -13 | 291 | 76 -35 | 24 | 210 | Chimney, U. S. Alcohol Co. |
| Yacht | 39 -13 | 187 | 76 -34 | 547 | 30 | Chimney on house |

| Object | Lat. | D.M. | Long. | D. P. | Height | Remakks |
|---|---|---|---|---|---|---|
| Sle | 39 -13 | 153 | 76 -34 | 645 | 8 | Banner on end of small dock |
| Fin | 39 -13 | 159 | 76 -34 | 1091 | 6 | Pile dolphin |
| Fert | 39 -13 | 77 | 76 -35 | 126 | 60 | Black water tank, Standard Fertilizer Co covered. |
| Flood | 39 -12 | 1747 | 76 -34 | 1061 | 10 | Banner signal, station not re* |
| [illegible]hem | 39 -12 | 1738 | 76 -34 | 614 | 40 | Pole on end of dock, |
| Dav | 39 -12 | 1694 | 76 -34 | 290 | 150 | Chimney, Davidson Chem. Co. |
| Bow | 39 -12 | 1700 | 76 -33 | 1216 | 30 | Bow of stranded ship. |
| Meter | 39 -12 | 1618 | 76 -34 | 481 | 60 | Anemometer, top of building. |
| Branch | 39 -12 | 1539 | 76 -34 | 1273 | 18 | Banner signal |
| Sun | 39 -12 | 1458 | 76 -34 | 478 | 60 | Flagpole, top of building |
| Oco | 39 -12 | 1265 | 76 -34 | 1289 | 5 | Pile dolphin |
| Amo | 39 -12 | 1195 | 76 -35 | 55 | 90 | Elevated water tank, American Oil Co. |
| Curt | 39 -12 | 1126 | 76 -34 | 1363 | 20 | Frame of Derrick on dock |
| Draw | 39 -12 | 848 | 76 -34 | 1265 | 30 | Light, center of draw, Curtis creek |
| Trans | 39 -12 | 785 | 76 -34 | 1086 | 30 | Transformer pole . |
| Wit | 39 -12 | 731 | 76 -34 | 1074 | 10 | Out house |
| Con | 39 -12 | 586 | 76 -34 | 1426 | 40 | Concrete distributing tower |
| Ell | 39 -12 | 458 | 76 -35 | 68 | 50 | Black water tank. |
| His | 39 -12 | 459 | 76 -34 | 1284 | 10 | Out house |
| Pyr | 39 -12 | 446 | 76 -34 | 901 | 15 | Peak of summer house |
| Bight | 39 -12 | 393 | 76 -34 | 740 | 10 | Banner |
| Holly | 39 -12 | 271 | 76 -34 | 1173 | 10 | Banner |
| [illegible]ill | 39 -12 | 63 | 76 -34 | 639 | 20 | Banner |
| Sur | 39 -12 | 9 | 76 -33 | 1349 | 20 | S.E. Cor. Coast Survey Boat House - |
| Tank | 39 -12 | 0 | 76 -34 | 115 | 75 | Water tank, Coast Guard Depot |
| Dol | 39 -11 | 1420 | 76 -34 | 941 | 10 | Pile dolphin |
| Bey | 39 -11 | 1412 | 76 -33 | 1117 | 10 | Banner |
| Staff | 39 -11 | 1374 | 76 -34 | 219 | 40 | Flagpole, Coast Guard depot |

Plane table Positions for Baltimore Harbor.



| Object | Lat. | D. M. | Long. | D. P. | Height | Remarks |
|---|---|---|---|---|---|---|
| Tip | 39 -11 | 1363 | 76 -33 | 1248 | 10 | Banner |
| Cup | 39 -11 | 1343 | 76 -34 | 117 | 35 | Cupola of Boat building shp |
| Stack | 39 -11 | 1374 | 76 -34 | 1134 | 40 | Small black steel stack |
| Fremont | 39 -11 | 1339 | 76 -34 | 486 | 10 | Banner, end of dock. |
| [illegible]st | 39 -11 | 1338 | 76 -33 | 1416 | 15 | Banner |
| Dolphin | 39 -11 | 1313 | 76 -34 | 29 | 10 | Front range, Arundel Cove |
| Nan | 39 -11 | 1220 | 76 -34 | 994 | 30 | Searchlight, |
| Gon | 39 -11 | 1210 | 76 -34 | 372 | 40 | Smokestack, U.S.S. Algonquin |
| Not | 39 -11 | 1190 | 76 -34 | 241 | 10 | Trespass sign, C. G. Depot |
| Coast | 39 -11 | 1167 | 76 -34 | 108 | 10 | Banner |
| Ced | 39 -11 | 1159 | 76 -34 | 974 | 30 | Searchlight |
| Each | 39 -11 | 1068 | 76 -34 | 947 | 30 | Searchlight |
| Trip | 39 -11 | 1001 | 76 -34 | 933 | 30 | Searchlight |
| Res | 39 -11 | 887 | 76 -34 | 165 | 10 | Banner |
| Lit | 39 -11 | 692 | 76 -34 | 846 | 30 | Searchlight |
| Tree | 39 -11 | 645 | 76 -34 | 290 | 10 | Banner |
| Mo | 39 -11 | 517 | 76 -34 | 783 | 20 | Searchlight on pole |
| Ord | 39 -11 | 958 | 76 -34 | 889 | 40 | Small black steel stack |
| Boat | 39 -11 | 452 | 76 -34 | 298 | 5 | Stranded boat |
| Sign | 39 -11 | 398 | 76 -34 | 781 | 5 | Trespass sign. |
| Tel | 39 -11 | 397 | 76 -34 | 806 | 10 | Electric light pole |
| Ladder | 39 -11 | 227 | 76 -34 | 535 | 20 | Banner |
| [illegible]y | 39 -11 | 227 | 76 -34 | 1142 | 10 | Banner |
| [illegible]d | 39 -11 | 120 | 76 -34 | 606 | 10 | Banner |
| Vania | 39 -15 | 1616 | 76 -33 | 184 | 75 | Elevated tank, |
| Trol | 39 -15 | 1267 | 76 -32 | 1376 | 25 | Banner |
| Penn | 39 -15 | 1156 | 76 -33 | 508 | 100 | Flagpole on top of elevator |

Planetable Positions for Baltimore Harbor



| Object | Lat. | D. M. | Long. | D. P. | Height | Remarks |
|---|---|---|---|---|---|---|
| Jump | 39 -15 | 1068 | 76 -32 | 1044 | 20 | Banner |
| River | 39 -15 | 1010 | 76 -32 | 505 | 60 | Black elevated tank, Riverview Park |
| Gate | 39 -15 | 873 | 76 -32 | 207 | 18 | Watchman's house on R.R. trestle |
| Cone | 39 -15 | 805 | 76 -32 | 720 | 30 | One of two conical cupola on building at Riverview Park |
| Theatre | 39 -15 | 791 | 76 -32 | 477 | 30 | Flagpole on open air theatre, Riverview Park |
| [illegible]na | 39 -15 | 720 | 76 -32 | 44 | 5 | Corner of bulkhead. |
| Bright | 39 -15 | 577 | 76 -31 | 1202 | 15 | Flagpole ,(one of many) |
| Dun | 39 -15 | 343 | 76 -31 | 681 | 75 | Red water tank on property of Central Foundry Co, Dundalk |
| Miller | 39 -15 | 349 | 76 -31 | 1246 | 5 | Corner of Bulkhead. |
| Park | 39 -15 | 179 | 76 -31 | 1165 | 5 | Corner of Bulkhead. |
| Dalk | 39 -14 | 1796 | 76 -31 | 689 | 50 | Taller of two small steel stacks Abandoned plant, Russell & Burns. |
| Paint | 39 -14 | 1175 | 76 -31 | 636 | 40 | Small steel stack, end of wharf. |
| Rear lt. | 39 -14 | 928 | 76 -30 | 588 | 25 | Range beacon, Unger & Mahon, |
| Unger | 39 -14 | 921 | 76 -30 | 521 | 20 | Front range beacon, Unger & Mahon |
| Cow | 39 -14 | 695 | 76 -31 | 108 | 15 | Sentry house on wharf. |
| Pop | 39 -14 | 591 | 76 -30 | 252 | 15 | Flagpole, Clement Cove. |
| Stem | 39 -14 | 543 | 76 -30 | 107 | 20 | Stem of stranded hulk. |
| Shear | 39 -14 | 473 | 76 -30 | 177 | 40 | Top of shear leg derrick. |
| Nato | 39 -14 | 463 | 76 -31 | 68 | 10 | Dock. |
| Fleet | 39 -14 | 412 | 76 -30 | 271 | 75 | Elevated gray tank, Emergcy Fleet Yard |
| Brick | 39 -14 | 342 | 76 -30 | 839 | 100 | Red brick chimney. |
| Germ | 39 -14 | 224 | 76 -30 | 194 | 20 | Flagpole |
| High | 39 -13 | 1600 | 76 -30 | 1281 | 100 | Middle and highest of three tanks Alumimum Ore Co. |
| [illegible]re | 39 -13 | 1277 | 76 -30 | 211 | 15 | Trespass sign, end of dock. |
| Quat | 39 -13 | 476 | 76 -30 | 11 | 20 | Light standard and number. Pier No. 4 , Bethlehem Steel Co |
| Penwood | 39 -12 | 1733 | 76 -28 | 581 | 100 | Black elevated tank, conspicuous |
| Bath | 39 -12 | 1481 | 76 -28 | 845 | 15 | South gable of Bath-house. |
| Blast | 39 -12 | 1482 | 76 -28 | 1380 | 100 | Steel blast furnace stack |

Planetable positions for Baltimore Harbor

5.

| Object | Lat. | D. M. | Long. | D. P. | Height | Remarks |
|---|---|---|---|---|---|---|
| Police | 39 -12 | 1296 | 76 -29 | 97 | 20 | Front range light, channel to ore dock |
| Dive | 39 -12 | 1276 | 76 -28 | 818 | 8 | Diving Platform. |
| Track | 39 -12 | 1250 | 76 -28 | 336 | 20 | Banner |
| Lava | 39 -12 | 1216 | 76 -28 | 593 | -- | Banner |
| Iron | 39 -12 | 1079 | 76 -29 | 105 | 20 | Outermost electric light pole on dock center line |
| [illegible]ar | 39 -12 | 1085 | 76 -29 | 820 | 150 | Extreme Southwest brick stack, Sparrows Point |
| Ran | 39 -12 | 1625 | 76 -33 | 36 | 50 | Elevated black water tank, Quarantine ing |
| Gld | 39 -12 | 1479 | 76 -32 | 1341 | 30 | Cupola of boathouse, center of build- |
| Arm | 39 -12 | 1113 | 76 -32 | 119 | 30 | Flagpole, Fort Armistead. |
| Sted | 39 -12 | 1084 | 76 -32 | 584 | -- | Banner |
| More | 39 -16 | 119 | 76 -36 | 220 | 200 | Brick chimney, B.& O. R.R. roundhouse |
| Crook | 39 -15 | 1594 | 76 -35 | 896 | 40 | Square brick chimney Co. |
| Beth | 39 -15 | 1503 | 76 -35 | 159 | 125 | Red brick chimney, Bethlehem Shpbdg. |
| Hen | 39 -15 | 1415 | 76 -34 | 1199 | 150 | Yellow brick chimney, Fort McHenry. |
| Lez | 39 -15 5 | 1437 | 76 -35 | 973 | 35 | Cupola on building, end of dock. |
| West | 39 -15 | 1350 | 76 -36 | 320 | 35 | Gable of warehouse |
| Winan | 39 -15 | 1242 | 76 -36 | 580 | 5 | Corner of pile bulkhead mantling. |
| Ship | 39 -15 | 1184 | 76 -35 | 506 | -- | Stack of ship lying at dock for dis- |
| Late | 39 -15 | 1130 | 76 -36 | 1045 | 75 | Brick chimney, Locke Insulator Co. |
| Tower | 39 -15 | 818 | 76 -36 | 1423 | 50 | Southeast operating tower for draw. |
| Loco | 39 -15 | 756 | 76 -36 | 840 | -- | Southeast corner of locomotive shop. |
| Bar | 39 -15 | 539 | 76 -36 | 886 | 15 | Lighted beacon, Ferry Bar Point. |
| Club | 39 -15 | 509 | 76 -36 | 1380 | 40 | Cupola of clubhouse |
| [illegible]tand | 39 -15 | 153 | 76 -36 | 1110 | 10 | Judges' stand for boat races. |
| Run | 39 -14 | 1657 | 76 -35 | 322 | -- | Banner |

## Planetable Positions for Baltimore Harbor

| Object | Lat. | D. M. | Long | D. P. | Height | Remarks |
|---|---|---|---|---|---|---|
| Mar | 39 -14 | 1734 | 76 -34 | 1214 | 20 | Maryland Brydock Front Range Beacon |
| Land | 39 -14 | 1680 | 76 -34 | 1238 | 25 | Maryland Drydock Rear Range Beacon |
| Dot | 39 -14 | 1647 | 76 -34 | 9 84/84 | 20 | Weyerhauser Timber Co. Front range beac |
| Rear Rage | 39 -14 | 1610 | 76 -34 | 1008 | 25 | Weyerhauser Timber Co. rear range beacon |
| [illegible]te | 39 -14 | 1596 | 76 -36 | 1044 | 15 | Trolley Pole on curb line. |
| Ref. Mark | 39 -14 | 1592 | 76 -35 | 18 | 10 | City topo survey<br>Ref. Mark, FURST, also traverse point |
| Del | 39 -14 | 1554 | 76 -35 | 662 | -- | Banner |
| Tim | 39 -14 | 1397 | 76 -34 | 1363 3 | 35 | Red water tank, Maryland Drydock |
| Fish | 39 -14 | 1393 | 76 -35 | 1238 | -- | Banner |
| Barge | 39 -14 | 1366 | 76 -36 | 174 | -- | Banner |
| 7702 T.P. | 39 -14 | 1248 | 76 -36 | 830 | 10 | Traverse point, City Topo Survey |
| Mast | 39 -14 | 1220 | 76 -36 | 639 | -- | Mast of dredge at mooring |
| Nel | 39 -14 | 1192 | 76 -36 | 258 | 35 | top of washing plant<br>Electric light pole at Arundel Corp. |
| Mxeyer | 39 -14 | 1180 | 76 -34 | 1351 | 100 | Black tank, Weyerhauser Timber Co. |
| Shop | 39 -14 | 1086 | 76 -36 | 488 | 30 | Derrick at Shoppe Brick Co. |
| Hut | 39 -14 | 1054 | 76 -36 | 147 | 8 | House boat. |
| 7703 T.P. | 39 -14 | 1010 | 76 -36 | 654 | 10 | Traverse Point, City Topo Survey |

## Hydrographic Positions, Sextant Angles

| | | | | | | |
|---|---|---|---|---|---|---|
| Ice | 39 -12 | 1656 | 76 -35 | 423 | 40 | Branch<br>Small steel stack, Ice plant, Cabin |
| Tan | 39 -12 | 1482 | 76 -35 | 693 | 100 | Conspicuous red tank, Tannery, |
| Chimney | 39 -16 | 163 | 76 -33 | 343 | 100 | Unknown identity |
| Colgate | 39 -16 | 104 | 76 -32 | 803 | 100 | Creek<br>Chimney, Baltimore Distillery, Colgate |
| [illegible]olabird | 39 -16 | 460 | 76 -32 | 277 | 125 | Black Tank, Camp Holabird Not used. Does not agree with old position H.B. |
| [illegible]noe | 39 -15 | 947 | 76 -32 | 147 | -- | Indefinite object |
| Float | 39 -13 | 1116 | 76 -29 | 1142 | -- | Transfer slip, Lyods Point |
| Tras | 39 -13 | 373 | 76 -30 | 10 | 15 | Electric light pole and number, Pier 3 |
| Slag | 39 -12 | 1809 | 76 -29 | 1257 | 15 | Banner, on corner of dock. |
| Coal | 39 -12 | 1350 | 76 -29 | 1239 | 20 | of coal pier<br>Electric light pole, 15 feet from corner |

ADDRESS THE DIRECTOR
U.S. COAST AND GEODETIC SURVEY

AND REFER TO NO.

4065 b

DEPARTMENT OF COMMERCE

U.S. COAST AND GEODETIC SURVEY

WASHINGTON October 23, 1924.

DESCRIPTIVE REPORT

To accompany Topographic Sheet of Northwest Harbor, or Inner Basin of Baltimore

The limits of this sheet are approximately Latitude 39°15' to Latitude 39°18' and Longitude 76°34' to 76°38'.

This sheet was executed mainly to furnish control for a hydrographic survey of the Inner Basin and to locate other points for use in orienting reductions made from blueprints.

A small amount of shoreline or outline of docks was executed where differences were noted from the present edition of the chart.

The principal sources of information with respect to the topography of the Inner Basin are contained in two blueprints obtained from the Baltimore and Ohio Railroad. One blueprint is captioned as Locust Point Yard and includes the south side of the basin on a scale of one inch to two hundred feet. This print has been carefully checked and corrections made are in all cases the result of actual field measurements. The blueprint of the Baltimore and Ohio Railroad designated as Sheet 3 takes in the whole of this portion of the harbor and much of the adjacent territory on a scale of one inch to four hundred feet. Corrections have been made to this print which are the result of investigations of data assembled by the U. S. Engineer Corps for a report on the Terminal Facilities of the Port of Baltimore. This data has been subject to a rigorous check by the Baltimore office of the U. S. Engineers and many field measurements by them and the field party of the Coast and Geodetic Survey. In compiling the chart of Baltimore it is believed that this report of the U. S. Engineer Corps will be valuable to the compiler.

Two blueprints of the Pennsylvania Railroad show their trackage and the outline of the docks which they serve. These prints are not believed to be essential to the compilation of the chart as far as the outline of docks is concerned. Two small blueprints of the Bethlehem Company show the plan of their two plants, one at Fort McHenry and the other called the upper plant or usually Skinner's Yard. Corrections to these prints have been made from information obtained from their engineering department.

The aerial photographs referred to in the report accompanying the sheet covering the lower part of the bay are especially valuable in checking the topography shown on the blueprints. In fact, they were used to more advantage in detecting changes or errors in the blueprints and chart.

A list of planetable positions which may be used for land marks is attached to this report.

R. J. Auld

# Planetable Positions for Baltimpre Harbor



4065 b

| Object | Lat. | D. M. | Long. | D. P. | Height | Remarks |
|---|---|---|---|---|---|---|
| St.Mary's | 39 -16 | 820 | 76 -36 | 770 | 200 | St. Mary's Star of the Sea, spire Riverside Ave & G Gittings |
| Chimney | 39 -16 | 903 | 76 -35 | 1043 | 225 | Center of Building, American Sugar Refinery |
| " | 39 -16 | 925 | 76 -35 | 966 | 200 | Easterly one of Twin stacks, Am. Sugar Refinery |
| " | 39 -16 | 914 | 76 -35 | 988 | 200 | Westerly one of twin stacks, Am. Sugar Refinery |
| Tank | 39 -16 | 1430 | 76 -35 | 1153 | 75 | Top, Painted Lord Calvert Coffee (Levering & Co.) |
| Tank Lok | 39 -16 | 428 | 76 -35 | 375 | 75 | B.& O. R.R. Locust Point |
| Grant | 39 -16 | 40 | 76 -34 | 1234 | 50 | Square brick chimney, U.S. Immigration Service powerhouse |
| Engineer | 39 -15 | 1822 | 76 -34 | 1058 | 25 | Signal pole, U.S. Engineer Wharf Pier #3 |
| Ohio | 39 -16 | 385 | 76 -34 | 1267 | 12 | Mooring bit; N.E. corner B.&O. |
| Soco Tank | 39 -16 | 1073 | 76 -33 | 1397 | 225 | Chimney, highest, Standard Oil C o |
| Chimney | 39 -16 | 1162 | 76 -34 | 873 | 75 | Elevated tank, south of building Tin Decorating Co. |
| Chimney | 39 -16 | 1148 | 76 -34 | 855 | 100 | Brick stack, Tin Decorating Co. |
| Standard | 39 -16 | 934 | 76 -34 | 537 | 10 | N.W. corner 60' dock Standard Oil Co. |
| Young | 39 -16 | 1204 | 76 -34 | 1050 | 125 | Brick chimney, J.S. Young Co. |
| Plane | 39 -16 | 1497 | 76 -34 | 1215 | 80 | Brick chimney, Canton Box Co. |
| Boyer | 39 -16 | 1671 | 76 -35 | 18 | 75 | Tank, S.E. corner of building, Boyer & Co. |
| Cans | 39- 17 | 108 | 76 -35 | 268 | 100 | Tank, Atlantic Can Cp. |

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11—5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

4065-a

# TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4065-a

State . . Maryland

General locality . . Patapsco River,

Locality . Baltimore Harbor, ~~Fort McHenry to Sparrows Point~~

Chief of party . . . R. J. Auld

Surveyed by . R. J. Auld & L. M. Zeskind

Date of survey . February - July 1924

Scale . . 1: 10,000

Heights in feet above . High Water Mark

Contour interval . . — . feet. No Contours

Inked by . R. J. Auld . Lettered by . . R. J. Auld

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet

17 sheets - Baltimore City Topographic Survey
1 " each Wn. Md. Ry. ; Mex. Pet. Co. ; Prudential Oil Co.
Bethlehem Steel Co.

Remarks:

Form 537a
11-5813

4065 b

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

# TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4065 b

State . . . . Maryland

General locality . . . Baltimore Harbor

Locality . . . Northwest Harbor ~~on Inner Basin~~

Chief of party . . . . R. J. Auld

Surveyed by . . . . R. J. Auld

Date of survey . . . . August 1924

Scale . . . . . 1-10,000

Heights in feet above . . High water mark

Contour interval . . . . feet. No contours

Inked by R. J. Auld . . Lettered by R. J. Auld

Records accompanying sheet (check those forwarded): ✓Photographs,

✓Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet B. & O. R.R. - Baltimore and vicinity Sheet #3. B. & O. R.R. Locust Point Yard. Pennsylvania R.R. Track Layout - President St to Clinton St. - Pennsylvania R.R. Track Layout - Orangeville to Canton wharfs. Bethlehem Ship building Corp. Plan of Lower Plant or Baltimore Drydocks, Fort McHenry. Bethlehem Ship building Corp. Upper plant or Skinners Shipyard.

Remarks:

Corrections noted on Blueprints were obtained from field measurements or data incorporated in report on Terminal facilities, Baltimore, compiled by U.S. Engineer Corp

b

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