

**United States Department of Interior
National Park Service**

**National Register of Historic Places
Registration Form**

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900A). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Malloys Bay - Widewater Historical and Archaeological District

other names/site number **Shipwrecks:** *Accomac*, 18CH492; *Adway*, 18CH493; *Afrania*, 18CH493; *Aiken*, 18CH495; *Alabat*, 18CH496; *Alanthus*, 18CH497; *Alapaha*, 18CH498; *Alcis*, 18CH499; *Allison*, 18CH500; *Alpaco*, 18CH501; *Alta*, 18CH502; *Andra*, 18VH503; *Angelina*, 18CH504; *Anoka*, 18CH505; *Aowa*, 18CH506; *Arado*, 18CH507; *Baladan*, 18CH508; *Banicia*, 18CH509; *Battahatchee*, 18CH510; *Bayou Teche*, 18CH511; *Bedminster*, 18CH512; *Belgrade*, 18CH513; *Bellbrook*, 18CH514; *Benzonia*, 18CH515; *Bobring*, 18CH516; *Bockonoff*, 18CH517; *Boone*, 18CH519; *Bottineau*, 18CH520; *Boxley*, 18CH 521; *Boykin*, 18CH522; *Braeburn*, 18CH523; *Bromela*, 18CH524; *Buckhorn*, 18CH525; *Buhisan*, 18CH526; *Cabeza*, 18CH529; *Calala*, 18CH430; *Caribou*, 18CH531; *Casmalia*, 18CH532; *Coconino*, 18CH533; *Congaree*, 18CH534; *Cumberland*, 18CH535; *Datis*, 18CH536; *Dertona*, 18CH537; *Dungeness*, 18CH538; *Fernandina*, 18CH539; *Flavel*, 18CH540; *Folsom*, 18CH541; *Fort Stevens*, 18CH542; *Guilford*, 18CH543; *Hoosac*, 18CH544; *Ida S. Dow*, 18CH545; *Kangi*, 18CH545; *Kasota*, 18CH547; *Kickapoo*, 18CH548; *Marshfield*, 18CH549; *Mono*, 18CH550; *Moosabee*, 18CH551; *Musketo*, 18CH552; *Nameki*, 18CH553; *Nemassa*, 18CH554; *North Bend*, 18CH555; *Nupolena*, 18CH556; *Owatama*, 18CH557; *Panga*, 18CH558; *Quapaw*, 18CH559; *Quemaking*, 18CH560; *Swamscott*, 18CH561; *Tanka*, 18CH562; *Wakan*, 18CH563; *Wayhut*, 18CH564; *Wihaha*, 18CH565; *Woyaca*, 18CH566; *Yawah*, 18CH567; *Mermentau*, 18CH608; Unidentified steamship, 18CH487; Unidentified steamship, 18CH568; Unidentified steamship, 18CH569; Unidentified steamship, 18CH570; Unidentified steamship, CH571; Unidentified steamship, 18CH518; Unidentified steamship, 18CH518; Unidentified steamship, 18CH528; Unidentified steamship, 18CH527; Unidentified steamship, 18CH572; Unidentified steamship, 18CH573; Unidentified steamship, 18CH579; Unidentified steamship, 18CH574; Unidentified steamship, 18CH575; Unidentified steamship, 18CH576; Unidentified steamship, 18CH577; Unidentified steamship, 18CH578; Unidentified composite steamship, 18CH612; 10 Unidentified steamships [off Widewater; no site numbers]; Unidentified barge, 18CH488; Unidentified barge, 18CH580; Unidentified barge, 18CH581; Unidentified barge, 18CH582; Unidentified barge, 18CH583; Unidentified barge, 18CH584; Unidentified barge, 18CH585; Unidentified barge, 18CH586; Unidentified barge, 18CH587; Unidentified barge, 18CH588; Unidentified barge, 18CH589; Unidentified barge, 18CH594; Unidentified boat, 18CH597; Unidentified boat, 18CH601; Unidentified boat (search and rescue?), 18CH623; Ship debris pile, 18CH590; Ship debris field, 18CH600; Ship debris field, 18CH620; Ship hull fragment, 18CH595; Ship hull fragment, 18CH596; Ship hull fragment, 18CH602; Unidentified log canoe fragment, 18CH618; unidentified boat hull fragment, 18621; Unidentified ship keel, 18CH619; Houseboat/Potomac River Ark, 18CH604; Unidentified centerboard schooner, 18CH605; Unidentified centerboard schooner, 18CH614; Unidentified centerboard sharpie, 18CH616; Unidentified workboat, 18CH606; Unidentified small boat, 18CH607; Unidentified centerboard log canoe, 18CH609; Skiff, 18CH613; Longboat [?], 18CH615.
Structures: Wharf, 18CH491; Steamboat wharf, 18CH622; Marine slipway, 18CH591; Berm and log wall, 18CH598; Canal berm, 18CH599; Berm and concrete basin gateway, CH603

2. Location

street & number	Mallows Bay to Widewater					N/A	not for publication
city or town						N/A	vicinity
state	Maryland	code	MD	county	Charles	code	zip code

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Signature of certifying official/Title

Date

State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria.
(See continuation sheet for additional comments.)

Signature of commenting official/Title

Date

State or Federal agency and bureau

Mallows Bay - Widewater Historical and Archaeological District

Charles

Maryland

Name of Property

County and State

4. National Park Service Certification

I hereby certify that the property is:

entered in the National Register.

See continuation sheet.

determined eligible for the National Register.

See continuation sheet.

determined not eligible for the National Register.

See continuation sheet.

removed from the National Register.

other, (explain:)

Signature of the Keeper

Date of Action

5. Classification

Ownership of Property
(check as many boxes as apply)

private

public-local

X public-State

public-Federal

Category of Property
(Check only one box)

building(s)

X district

X structure

X site

object

X

Number of Resources within Property
(Do not include previously listed resources in the count)

contributing

noncontributing

buildings

134

vessels

6

structures

objects

140

total

Name of related multiple property listing:

(Enter "N/A" if property not part of a multiple property listing.)

Potomac River Shipwrecks of Maryland

Number of contributing resources

is previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions)

Transportation/water-related

Military/water-related

Current Functions

(Enter categories from instructions)

Landscape/marine

Landscape/marine

7. Description

Architectural Classification

(Enter categories from instructions)

wharves

walls

gateway

ships

Materials

(Enter categories from instructions)

timber

earth

concrete

Wood/iron

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

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8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for the National Register listing.)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance

(Enter categories from instructions)

Archaeology/Historic-non-aboriginal

Maritime History

Industry and Fisheries

Military

Period of Significance

1776-1945

Significant Dates

July 22, 1776

April 17, 1917-1945

Significant Person

(Complete if Criterion B is marked)

N/A

Cultural Affiliation

Euro-American

Architect/Builder

United States Shipping Board/ multiple constructors

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

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9. Major Bibliographic References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous Documentation on File (National Park Service):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- Donald G. Shomette, 10525 Ward Road, Dunkirk, MD 20754
- recorded by Historic American Buildings Survey #
- recorded by Historic American Engineering Record #

Primary location of additional data:

- State Historic Preservation Office
 - Other State Agency
 - Federal Agency
 - Local government
 - University
 - Other
- Name of repository: Private collections of

10. Geographical Data

Acreage of Property 9,296.44 acres (14.53 square miles)

UTM References (Place additional UTM references on a continuation sheet.)

1	761634.79	382901.98	3	771837.32	382550.17
Zone	Easting	Northing	Zone	Easting	Northing
2	771907.10	382822.44	4	771556.20	382458.07
Zone	Easting	Northing	Zone	Easting	Northing

X See Continuation Sheet

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet)

11. Form Prepared By

name/title	Donald G. Shomette	Date	09-23-2013
organization	Cultural Resources Management	Telephone	301-855-5280
street & number	10525 Ward Road	zip code	20754
city or town	Dunkirk	state	MD

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Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

Property Owner

Complete this item at the request of SHPO or FPO.)

name/title	State of Maryland, U.S.A.	date
organization		telephone
street&number		zip code
city or town	state	

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects, (1024-0018), Washington, DC 20503.

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History of Investigations

The Mallows Bay Shipwreck Survey was undertaken between 1986 and 1998 under the direction of Donald G. Shomette to examine and assess the marine archaeological resources lying in and adjacent to Mallows Bay, Charles County, Maryland. The objectives of the project were: (1) to produce, through non-intrusive investigation, a comprehensive inventory of all historical maritime and archaeological resources lying within the confines of Mallows Bay, lying in tidal and non-tidal waters east of a line drawn between Sandy Point and Liverpool Point; (2) to examine the impact of the importation and reduction of as many as 218 wooden steamships produced during the U.S. Shipping Board's Emergency Fleet Corporation World War I shipbuilding program, and sundry other vessels, as well as human alterations of and structures inserted into the marine environment upon the local and regional terrestrial and submarine environment, and (3) and to conduct limited archaeological assessment on a representative sample of the shipwreck population. The principal goal of the field study, designed to expand upon the accumulated written and oral data assembled during archival research, was to conduct an intensive reconnaissance survey of the sunken World War I "Ghost Fleet" and other vessels in Mallows Bay between Sandy Point and Liverpool Point, Maryland, to document the vessel remains and their unique environmental setting, and to prepare a comprehensive written, photographic, videotape, and drawn documentation of the site and its environmental. To accomplish these ends, the following was undertaken: (1) the completion of a photographic and videotape documentary reconnaissance of the site utilizing suitable aircraft; (2) the conducting of a boat-based reconnaissance survey of the site to record and chart known shipwrecks in Mallows Bay; (3) the preparation of a map of all identified shipwrecks and other cultural resources associated with the unique environmental niches created by the sunken fleet, as well as vessels belonging to the World War I fleet at Widewater, Virginia; (4) the recordation of environmental data on distinct floral and faunal communities associated with the unique environmental niches created by the sunken vessels; (5) and the preparation of a final written report documenting the project and its results, including recommendations for future action regarding the sites. The above investigation was completed in 1998.

Site Description

The Mallows Bay Historic and Archaeological District consists of three features: the vessel remains from the 18th through the late 20th centuries; structures inserted into the marine environment such as navigational aids and wharfage, cribbing, and small craft reception facilities; and alterations of the marine environment for the specific purpose of industrial ship reduction and wrecking (burning basin and bypass canal, gates, berms, jetties and islands), and harbor creation or alteration.

The Mallows Bay-Widewater Historical and Archaeological District is divided into distinct transects lying between a reach of north of Sandy Point on the northern extremity and south of Liverpool Point, and eastward to the shoreline (an the eastern extremity of a log and berm wall of the "Burning Basin" at the outlet of Marlow's Creek. A seaward extension across the Potomac to the Virginia shore between the southeastern corner of the U.S. Marne Corp base at Quantico, Virginia to the eastern tip of Brent's Point, Virginia, which shall be called Transect Five.

Transect 1 incorporates an area beginning 200 yards north of the 1929 Sandy Point 1998 position of the navigational light (no longer extant) on a line running westward 300 to 750 feet, then running south on a measured line with Liverpool Point, generally along the 9-12 foot bottom contour line of the Potomac, for a distance of 2,300 feet to the northernmost entrance point of Mallows Bay. The total transect area is 830,000 square feet. Within this transect lies one unidentified USSB vessel, two wharves, and an extensive debris field of unidentified vessel remains, and possibly two or more but undiscovered USSB vessel.

Transect 2 incorporates all of the Mallows Bay grounding area employed by WM&SC during its operations at

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the embayment, east of Sandy Point Liverpool Point line, and beginning at the southernmost extremity of Transect 1. The western extremity of the transect generally runs along the 9-12 foot bottom contour, and extends 4,400 feet southward to a line formed by the southwestern extremity of the visible wreck of the car ferry *Accomac* and from there extending eastward to a point of land at the northern entrance to the former Mallows Bay Boat Club Basin, hereafter referred to as the Burning Basin. The width of the transect ranges from 750 feet to a maximum of 1,850 feet. The overall water area in the transect is 5,800,000 square feet (19.05 acres). Within this transect lies the steel hulled passenger/car ferry *Accomac*, the four masted schooner *Ida S. Dow*, 11 barges, 88 USSB steamships, a Potomac River "Ark," one small boat log slipway and receiving dock, one concentrated debris field of vessel remains, and one piling line for accidental fleet drift retention, and possibly as many as 30 undiscovered USSB vessel remains.

Transect 3 incorporates all waters in the Burning Basin from the western edge of the concrete and iron wall and gate entrance eastward to the eastern side of an earthen berm at the outlet of Marlow's Creek. The total water area of the transect is 355,000 square feet. The transect contains the remains of the ex-USCG cutter *Chester*, one barge, one possible search and rescue vessel, a small craft debris field, two basin walls and gates of log, concrete and iron construction, a bypass canal system, and miscellaneous ship hull fragments, as well as possibly two sunken but unconfirmed USSB vessel remains.

Transect 4 incorporates all waters from the southern extremity of Transect 2 and the western extremity of Transect 3 southward for 3200 feet along the 9 foot bottom contour line to 200 yards south of Liverpool Point. The total water area in this transect is 680,000 square feet. This transect contains two centerboard schooners, one centerboard log canoe, one composite steamship, one skiff, a possible Virginia State Navy longboat of the American Revolution, a debris field of miscellaneous components of various vessel types, and possibly three or more undiscovered vessels.

Transects 1 thru 4 were subjected to hands on and some remote sensing investigation.

Transect 5 includes all waters extending southwestward from the northwestern point of Transect 1 to the southeastern perimeter edge of the Quantico U.S. Marine Base, at Clifton, Virginia, and from the southwestern edge of Transect 4 on a 180° line to the Virginia shoreline at the tip of Brent's Point, and incorporating those waters off Widewater and including Akendale Flats, the original anchorage of the USSB fleet, in which numerous vessels of the USSB fleet were accidentally lost by fire. The archive investigation of this area and an aerial reconnaissance identified seven vessel sites, but no hands on investigation has been conducted.

History and Vessel Construction

In 1608 the first European to fully explore the navigable length of the Potomac River and document it, and the first known white man to lay eyes upon embayment now known as Mallows Bay, was Captain John Smith of Virginia. Others, such as Henry Fleet, Henry Spelman, and Leonard Calvert soon followed, but left no comment regarding the indentation of the Maryland shoreline that would later be known as Mallows Bay. Not until 1670 would evidence of plantations established near the embayment be published on Augustine Hermann's famed map *Virginia and Maryland* by the first settlers, one of whom is identified as Zachariah Wade (on lands later purchased by George Washington). Not until 1735, when Walter Hoxton published his *Mapp of the Chesapeak*, did prominent landmarks about the bay actually begin to appear on maps and charts of the region. For the first time, the southern lip of the bay was identified as Liverpool Point. Not until 1776, however, was the northern lip of the bay noted as Sandy Point on Anthony Smith's *A New and Accurate Chart of the Bay of Chesapeake*, a name by which it most likely had been known for some time before. The area was still isolated and lightly occupied by a few local residents who gained subsistence from agricultural pursuits, and possibly from seasonal subsistence fishing for shad and herring, though the still unnamed embayment undoubtedly already served as a convenient natural refuge and anchorage for shallow draft workboats and other vessels plying the Potomac River. Indeed, its strategic location offered the first major sheltered anchorage on the Maryland shore for in-bound vessels after rounding Maryland Point well to the south, and the last on the same shore for outbound vessels

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after passing Chickamuxen Creek until they approached Nanjemoy Creek.¹

In July 1776 the Potomac River reach between Mallows Bay and the opposite shoreline of Virginia began to suffer from depredations by British and loyalist naval forces under the direction of Virginia's deposed royal governor, James Murray, the Earl Lord Dunmore. Driven from Virginia by patriot forces, but in command of a large armed flotilla manned by loyalist refugees and freed slaves, and supported by several Royal Navy men-of-war, Dunmore was desperately short of water and provisions. He had penetrated the waters of the lower Potomac hoping to find the resources to keep his forces afloat until regular troops might be sent to regain Virginia. Deterred from landing by local patriot militia forces lower down at St. George's Island, and then by the lack of potable water on the island. In desperation he resolved to conduct a watering expedition further up the river. Leaving the bulk of his flotilla anchored off St. George's, he proceeded up the river with a force of four ships bent on securing the necessary water and "to harass & annoy the Enemy by landing at different places."

On the afternoon of July 22, the British squadron dropped anchor off Sandy Point, Maryland. The following morning, as the British filled their water casks on the Virginia shore, a force of 300 Virginia militia assembled at the home of William Brent three miles south of the Stafford County-Prince William County, Virginia, border. The British dispatched a tender and row galley with Royal Marines and the 14th Regiment of Infantry to attack the Brent estate, known as "Richland," and break up the forces assembling there, which was successfully carried out. Dunmore then turned his attentions toward the Maryland shoreline between Mallows Bay and Sandy Point. The engagement that followed involved a recruiting party of men from the Virginia Potomac Flotilla galley *Protector*, who had come ashore to join a force of Maryland militiamen commanded by Colonel William Harrison. The Virginians, arrived in the bay aboard two boats under Captain Robert Conway, commander of the *Protector*, then lying upriver at the seaport of Alexandria, Virginia. Colonel Harrison's force numbered several hundred men.²

Dunmore attempted to seize the two vessels that *Protector's* men had arrived in. Conway and Thomas did the most expedient thing by staving in the bottom of one of the vessel to prevent capture, but had counted on the strong Maryland militia force to repel any British attempt to capture their other boat. After a brief firefight which drove off the American forces, Dunmore's troopers and marines landed and brought away the second longboat, as noted in the log of HMS *Roebuck*: "Tuesday 23d...at 4 Saw a Number of Arm'd men about a Boat in a Creek Sent the Galley which brot the Boat off." Two days after the engagement, the British completed their task of taking on fresh water and proceeded down the Potomac unopposed.²

Mallows Bay returned to its rural obscurity following the American Revolution. However, by 1822 Sandy Point was considered important enough for a road to be constructed linking it to Port Tobacco, the county seat of Charles County, Maryland, probably as a consequence of the infant fisheries industry which was already taking root on the river. In 1841 contemporary maps indicate that one of two creeks that fed into the embayment had finally taken on a name, that of the Marlow family which dwelled upon its banks. By the onset of the Civil War, the bay itself was being called Marlow's Creek. By the 1840s, Liverpool Point was under the ownership of Robert A. Clarke and Samuel Barnard.³

The documentary record regarding Mallows Bay during this period is limited, but considering the bountiful marine resources of the site, it is quite likely that it was already serving as a major staging area for commercial fishing on the Potomac, probably as early as the 1830s. Indeed, by 1837, Sandy Point was definitely hosting one of thirty known major fisheries on the river. And, judging from the reported take at mid-decade, it was a most productive, if rigorous, enterprise.⁴

Although commercial fishing on the Potomac had begun as early as the 1760s, it was not until the onset of the 19th century that the river's vast finned bounty began to be exploited on an industrial scale. In 1835 a Virginia gazetteer stated that 22,500,000 shad (*Alosa aestivalis*) and 750,000 herring (*A. pseudoharengus*) were being caught per year in the river, though only a few fishing methods, such as the use of simple short tongs for harvesting shallow water oysters, and small seines, weirs, and primitive fish hooks for bringing in finned fish, were being employed at the beginning of the century.⁵

The shores of Mallows, or Marlow's, Bay from Sandy Point to Liverpool Point served admirably for haul seining

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operations, which was to become the most efficient manner of commercial fishing prior to the Civil War era. The operation based at Sandy Point would have varied little from others on the river. The fishing camp would have been established on the beach near the hauling grounds where the seine haulers lived during the fishing season. The crew, usually slaves, varied from five or six men at the beginning and end of the season to approximately thirty men when fishing was intense. In addition to slaves, one or two men were usually hired as seine managers, one as a seine mender, and another as a clerk for the fishery. From six to eight marker boats were utilized to transport catches from the landing to market in Alexandria, Virginia. The round trip by sailing or rowing could take more than two days. The run boats returned with salt, fish barrels, and various other items of clothing and equipment used in the fishery.⁶

The seine was 350 yards long. Its dimensions, according to one prominent Potomac haul seine fisherman of the early 19th century, George Chapman, were "going out wing 130 yards 2 1/2 inch mesh 144 meshes deep, middle 120 yards, small, 2 inch mesh 180 meshes deep, coming in wing 100 yards 2 1/2 inch mesh, 144 to 168 meshes deep." Cork floats were used on the headrope. The footrope was not leaded, but probably hung with a heavy line to keep the net on the bottom. Tar was used as a net preservative.⁷

Some seining operations were enormous in extent. By the late 1830s tremendous seines employed on the Delaware and Susquehanna rivers had been introduced to the Potomac "Extending nearly across the river, one thousand to two thousand two hundred fathoms in length (6,000 to 7,000 feet) with an equal length of rope attached to one end" these massive seines were then "dragged up and down the stream with the tide, so as to sweep away anything within its bed." The use of such equipment, of course, had the effect of severely impacting or destroying the spawn, and shutting down many of the small fisheries that lined the river.⁸

In 1858, however, another important adoption of fishing technology was undertaken on the river. This was the utilization of pound nets to block large areas of the river, from shallow to moderately deep waters. Stake gill nets were also to be employed on an ever-widening basis. Employment of this fishing method was primarily in the upper Potomac above Mathias Point. Nets were usually put in early spring (March) to catch the ascending schools of anadromous fish, such as striped bass and shad, and were discontinued by the end of April. Stake gill nets were most frequently deployed from Sandy Point to Douglas Point, and were usually carried out from the edge of Mallows Bay all the way across the Potomac to the shoals of Widewater. The new fishing methods rapidly began to deplete the resource base. Indeed, concerns about over-harvest in the Potomac were being expressed as early as 1817, but frequent efforts at punitive legislation in both Maryland and Virginia did little to stem the tide that soon depleted the river.⁹

By the onset of the Civil War, Marlow's Creek began to appear in contemporary maps as Marlow's Bay, on the shores of which a landing known as Main Wood Landing had been established. A quarter mile distant inland from the headwaters of Marlow's Creek was a settlement referred to as Jacksontown, although neither the "town" or the landing were connected by any formal road system to other sectors of the county.

Both Liverpool Point and Sandy Point, however, had been connected to Port Tobacco and to the road system leading north toward Washington, D.C. In 1862, a contemporary military map of the region notes that a family named Waters occupied the waterfront at Sandy Point, while another family named Price occupied Liverpool Point. A ferry landing called Cooke's Ferry had also been erected at Sandy Point somewhat prior to the Civil War, for it connected with another landing on the Virginia shore at Widewater which was cut off from Union access in the opening days of the conflict.¹⁰

During the Civil War, Southern Maryland, particularly Charles and St. Mary's Counties, was notoriously sympathetic to the Confederate cause. In late 1861 Charles County was immediately occupied and heavily fortified by Federal troops under Major General Joseph Joseph Hooker, as much to quell possible insurrection and halt smuggling across the Potomac as to protect against a feared Confederate invasion of Southern Maryland. Despite such precautions during this period, information and mail were frequently smuggled from the more isolated reaches of the county, such as Marlow's Bay, across the river to Virginia. In late 1861 Confederate batteries along the Virginia shoreline were periodically opened against Union forces in the Sandy Point area.¹¹

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Federal control of the Marlow's Bay area was maintained from Camp Wool, 4.5 miles north of Liverpool Point. But a major storage depot for the army was erected at Liverpool Point, which supported a landing site for naval support. During the fall of 1861 to early 1862, at the peak of Union fears over a possible Confederate invasion of Maryland from the Virginia shore, Liverpool Point was held by a forward unit of Smith's 5th Excelsior Brigade, an element of Colonel Charles K. Grahams' 74th New York Infantry, under General Daniel Sickles, attached to General Joseph Hooker's Division, and defended by several artillery batteries.¹²

In March 1862, a major 1,000-man amphibious reconnaissance in force was launched under Sickles's command from Liverpool Point, landing at Shipping Point on the Virginia side of the river. During the raid, the first use in history of the rapid fire Gatling Gun, or "Coffee Grinder" as the weapon was then dubbed, was successfully engaged by Union forces. After it's us the gun was returned to defensive works at Liverpool Point.¹³

Following the Civil War, in 1885, an ex-patriot Virginian, Captain Morgan L. Monroe, rented a farm on Sandy Point, which "proved to be the most lucrative location for fishing on the river, due to the deep channel close to shore." In 1888, Monroe erected a sturgeon fishing station and caviar processing plant at Liverpool Point.¹⁴

Monroe purchased at least five Philadelphia sturgeon fishing skiffs, and the services of ten men, many of them family members, and two mules to carry on the operation. His fishing and processing operations were later recalled by his son Lawrence:

*We worked the river from the end of June through the first part of September; returning home [Riverside] on Saturday night only to sleep all day Sunday. Never taking our clothes off even when sleeping on straw mattresses in the factory. Our best catch was 14 fish [sturgeon] in one day. We stacked the fish up ashore like logs, awaiting the processing by our shore-based family. My father gave up fishing for sturgeon in 1926 but continued to pound-net shad for food fish and herring for fertilizer chum, dying in 1946 from . . . problems caused by the hard work of landing heavy sturgeon. Most fishing was from Smith Point to Glymont where the channel is deepest and narrow with a shoal area nearby for the fish to fight themselves out.*¹⁵

Monroe had employed an active fleet of sturgeon skiffs on the Potomac, imported by train from Philadelphia where they had been built. These were the last "foreign vessels" to gain popularity on the Potomac. In 1926, after closing down the Liverpool Point plant, Monroe pulled the remnants of his sturgeon fleet, the skiffs *Black Bottom*, *W. S. Childs*, and *Edythe*, ashore at Liverpool Point and abandoned them.¹⁶

In 1896 the Marlow's Bay region witnessed the first marine tragedy known to have occurred near its shores. On October 5 of that year, two pungys, the 27-ton *Capitol* Captain Robert Cheseldine, and the 17-ton *Dove*, Captain Robert John Cheseldine and his brother George, while sailing in tandem along the Maryland shoreline, were caught in a sudden storm and were simultaneously swamped off Sandy Point. Robert and his two-man crew, William B. Jones and Joseph Price, were drowned. *Capitol* was totally lost. Though swamped, *Dove* was eventually saved, and her crew reached shore safely. The ill-fated *Capitol*, built in 1859 in Somerset County, Maryland, by Robert Cheseldine, had been 50 feet in length and, at the time of her loss, home-ported in Whites Neck Creek, Maryland.¹⁷

Despite such tragedies, which were not uncommon on the Potomac, Marlow's Bay continued to be employed by local mariners, several of whom called the place homeport. From the late 19th century on, Potomac River steamers such as the big 315-ton steamboat *Potomac*, of the Mount Vernon and Marshall Hall Steamboat Company, had stopped regularly at Liverpool Point, at which place a service wharf had been erected, to take on and off load passengers, produce, livestock, and mail.¹⁸

One of the vessels that called Marlow's Bay home was the square-sailed bugeye *Lola Taylor*, a vessel owned and operated by Captain Andrew Kendrick, and employed, off and on, carrying general cargoes and firewood between Alexandria and Fort Washington. *Lola Taylor* was a vessel of 10 tons burthen, 56 feet in length, 16.2 feet abeam, and 2.3 feet deep in hold. She had been built in Westmoreland County, Virginia, in 1886, and would serve under Kendrick until sold to Captain Randolph Thomas of St. George's Island, Maryland. On September 29, 1939, *Lola Taylor* was reported

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abandoned at Cross Road, Virginia. Another vessel that would call Marlow's Bay home port during this period was the *Bessie Lafayette*, which may have served under one of Kendrick's relatives who would also ply the Potomac. Unlike *Lola Taylor*, *Bessie Lafayette* would end her days in the little embayment, stripped and abandoned. Only her trailboard would survive, saved by author and historian Fred Tilp, and displayed at his home in Alexandria, Virginia, until his death in the 1980s.¹⁹

Marlow's Bay, however, continued to retain its patina of isolation, a remote sector of the Potomac River known only to the river's diminishing population of watermen, a handful of rural farmers along its shores, and the steamboat captains who regularly stopped at the landings at Sandy Point and Liverpool Point. From January 1904 to May 1905, owing to a destructive ice flow on the river, Liverpool Wharf was placed out of service, effectively redirecting passenger and commercial traffic to other landings, and contributing to a growing isolation of the region. With the onset of the First World War in Europe, however, the very remoteness of the little embayment would soon lead to its transformation into the largest and most densely populated ship "graveyard" in the United States.²⁰

THE UNITED STATES SHIPPING BOARD'S WOODEN STEAMSHIP FLEET

On April 2, 1917, the day President Woodrow Wilson issued a national call to arms against Imperial Germany, the entire continent of Europe, and much of the rest of the world, had already been immersed in a very costly war for nearly three years. The entry of the United States into the Great War came at a crucial moment. American allies, in particular Great Britain and France, were reeling from the devastating onslaught of Germany's campaign of unrestricted submarine warfare. Only a few weeks before Wilson's declaration, in February and March 1917 over 1,000,000 tons of merchant shipping, more than 200 ships per month, had been destroyed by German submarines and mines, and the rate of destruction during April was destined to be even worse. By the end of the month, one in every four ships leaving England, nearly 100 vessels per week, would perish. More than 5,000,000 tons of allied merchant shipping had been destroyed by the Central Powers since the beginning of World War I in 1914, and there seemed every indication that the undersea campaign prosecuted by German submarine forces would be carried out with increasing vigor during the coming summer months. With barely 20 million tons of merchant shipping still afloat for all of the allied nations combined, the outlook appeared grim. England's starvation and elimination from the war seemed imminent.²¹

The United States entered the war with unvarnished zeal and little more. Yet to gauge the enormous logistics necessary to wage war on the other side of the submarine-infested Atlantic, it is necessary only to look at a few comparative statistics. In 1915 the merchant tonnage of the entire world was estimated at 49,262,000 tons, of which 43.5 percent was British, 12 percent American, 10 percent German, and 5 percent French. Between 1899 and 1915 the shipyards of the United States had launched only 540,000 tons of blue water shipping, or 14.6 percent of the world total of 3,685,000 tons. Hitherto preoccupied with westward expansion and domestic struggles, the United States had, indeed, largely forsaken merchant shipbuilding following the Civil War and permitted foreign vessels, primarily British, to transport most of its sea commerce. During the late 1800s efforts had been launched by several concerns to reestablish the American merchant marine to its pre-Civil War status, but these efforts failed. At the onset of World War I, in 1914, the United Kingdom launched 1,683,533 gross tons as compared to 200,762 by the United States.²²

The expectation that the war would continue for several years prompted American shipbuilders to accelerate production; they launched 192 ships totaling 228,016 gross tons during the first half of 1916. Nevertheless, by April 1917 the United States had achieved some progress yet expended a large share of its modest shipbuilding energies upon foreign rather than domestic accounts.²³

With growing public concerns over possible entry into the war in Europe, in 1914 Secretary of the Treasury William G. McAdoo, conceived of a shipping corporation which the federal government would own. In 1916, Congress finally enacted a Shipping Bill charged with the promotion and regulation of the United States water transport which

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could also commandeer private lines if it determined that they did not perform advantageously for the public.²⁴

It is doubtful if U.S. Shipping Board officials, at that time, expected to establish a shipbuilding program, or could have foreseen the construction of wooden vessels as a component of such a program. Yet, the severe toll being extracted by German submarines upon allied shipping was soon to clearly emphasize the need for ships of all types. In 1917, Germany's institution of unrestricted warfare sparked a review of the Shipping Board's functions. These circumstances led to the creation of the United States Shipping Board (USSB) Emergency Fleet Corporation (EFC) in April 1917 under provisions of the Shipping Act of 1916, which empowered the Board to form a stock corporation. Organized under the laws of the District of Columbia with a capital stock of \$50,000,000 (which eventually grew to \$3,000,000,000), the EFC could purchase, construct, equip, lease, charter, maintain, and operate merchant vessels in the service of the United States.²⁵

In January 1917, William Denman, a prominent attorney with experience in admiralty law, was chosen as Chairman of the USSB. Not long afterwards, in mid-February, F.A. Eustis, a well-known and politically-connected yachtsman, formulated the concept of a large shipbuilding project that would focus on the construction of wooden steamships rather than steel hulled ships and presented it to Denman. For Denman, the concept seemed to have great merit, particularly at this important juncture.²⁶

In April, following the declaration of war, a general speeding up of merchant ship construction in the United States was initiated. Denman announced the USSB's primary steel construction program and introduced a corollary plan, based on Eustis's concept, to augment the steel ship fleet with 800 to 1,000 wooden ships. A rapid overhaul of the 6,000,000 tons of German shipping seized by the U.S. Government, and the probable temporary suspension of work on naval contracts, which could be completed within three years, was also planned. These efforts were undertaken to make available facilities for building at least 500,000 tons of merchant ships in addition to the large volume of business then in hand in the steel shipyards on the coasts and Great Lakes. Denman later complained that the press had ignored all but the wooden ship project claiming that he intended to build "a bridge of wooden ships from New York to Liverpool, over which the victorious army of American people and the sutlers' wagons were going over to succor Europe."²⁷

Together with an ongoing and extraordinary boom in steel shipbuilding, Eustis's concept soon fired a remarkable revival in wooden shipbuilding. EFC planners concluded that the country owned abundant timber reserves and at least a nucleus of wooden shipwrights, although wooden shipbuilding was largely extinct except in certain areas along the east and west coasts. Still, well over forty wooden shipbuilding yards were soon building ocean-going vessels of various types and the plans of the USSB to build an emergency fleet of hundreds of medium-sized boats to aid in carrying foodstuffs, munitions, and men through the war zone to the Allies meant an immediate expansion of the wooden shipbuilding industry. This project was endorsed by the President and at his request Major General George W. Goethals, U.S.A., was placed in charge of the enterprise as General Manager of the EFC.²⁸

Before entering upon this project, however, the United States Shipping Board conducted a thorough investigation of the lumber interests and of the smaller machine and boiler shops and steel plants throughout the nation to determine the feasibility of securing the necessary materials and propelling and auxiliary machinery for these vessels. As a result, they were able to advise the President and the Council of National Defense that under proper organization it would be probable, without disturbing the steel making or the steel shipbuilding industries, to produce in the neighborhood of 200,000 tons of such shipping each month, beginning at about seven or eight months after the work was initiated.²⁹

Goethals, a national hero for his role in the construction of the Panama Canal, was a strong advocate of steel ship construction. Although having early on endorsed the wooden ship concept in a lukewarm manner, he now berated it, and on May 25, 1917 issued a public declaration of disapproval. Denman defended the program vigorously. [10] The President, who had been empowered by the passage of the Urgent Deficiencies Act of June 15, 1917, with broad powers to construct, requisition, and operate merchant ships, supported the EFC's direction and the wooden ship program moved forward, albeit in a watered down version. The Denman-Goethals Controversy, however, refused to die, and in July the President asked for and received both their resignations. Edward N. Hurley replaced Denman as Chairman of the Shipping Board, and Rear

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Admiral Washington Lee Capps, Chief Constructor for the Navy Department, succeeded Goethals as General Manager.³⁰

The EFC's initial plans for the wooden steamship program were seemingly comprehensive and provided for the building of vessels of 3,500 tons deadweight or more carrying capacity and capable of about 10 knots sea speed, for which propelling machinery of about 1,500 horse-power would be required for each vessel. It was considered within the range of possibility to produce a fleet of 800 to 1,000 ships of this type within a mere eighteen months. Combined with the output of steel merchant vessels produced in that same time, production was expected to exceed or at least keep pace with the highest rate of shipping loss caused by enemy submarine action, thus making the German submarine blockade of Europe ineffectual. Indeed, it was argued, wooden ships of up to 5,000 deadweight tons, which required more than 1,500,000 board feet of lumber for construction, would have a lifting buoyancy or lifting power of 1,335 tons and would be nearly unsinkable. Denman once even publicly remarked, that even if they could be sunk, the United States could soon turn them out faster than the Germans could sink them!³¹

Announcement of the wooden shipbuilding program encouraged many persons to enter the enterprise. Aspiring wooden ship builders, an estimated eighty percent of them without experience, were soon forwarding as many as five contract applications a day. EFC estimators initially anticipated a lump sum cost for building the wooden hulls at \$300,000, while they expected machinery installation to approximate \$200,000. The actual total expense would eventually exceed \$750,000 per vessel.³²

Prototype plans for one class of wooden cargo boat which were accepted by the USSB, and which received the highest rating ever granted for wooden vessels by the American Bureau of Shipping, were made public and published for the first time in April 1917. This design, by William T. Donnelly, of New York (who was neither a naval architect or had ever designed a steamship), presented a revolutionary new departure in wooden ship construction in that the principles evolved in the development of steel shipbuilding were directly applied to wooden construction, resulting in a ship initially deemed far superior in strength and carrying capacity to the type of ship formerly built of wood. The construction was such that practically all parts were standardized, so that the materials received from the mills could be assembled into the ship with a minimum of fabrication at the yard.³³

As speed of construction was a first requisite in the building of this fleet, all shipbuilders and engine and machinery manufacturers who had facilities adaptable to this work were advised to immediately place their plants at the disposal of the USSB, then headquartered in the Munsey building, Washington, D. C. Contracts for work were to be placed by the EFC and its agents.

Donnelly, an engineer whose offices were located at 17 Battery Place, in New York, authored the first important analysis of the wooden ship construction effort and the problems likely to be encountered. The title of his work was "Problem of the Wooden Cargo Ship: Description and Calculations Relative to Construction of 5,500 Deadweight Carrying Capacity Cargo Vessel"³⁴

The plans and information submitted therein were relative to a wooden ship of dimensions and carrying power considerably beyond anything hitherto constructed and were the result of many years of study and investigation of the problem. They were published with the proviso that they were not to be considered in any sense a war measure. In fact, the plans, which presented a larger vessel then was destined to be adopted, together with the calculations, had been almost, if not quite, completed before the agitation for wooden ships was brought about by Germany's campaign of unrestricted submarine warfare.³⁵

Acceptance of the wooden ship concept as a viable means to achieve the wartime needs of American and allied shipping, it was hoped, would be necessary to move the program forward rapidly. Another of the leading proponents of the wooden ship concept was Theodore E. Ferris, a naval architect, whose offices were at 30 Church Street, in New York City. Because of his extensive experience and grasp of the tenants of wooden ship construction, Ferris was appointed to the position of official Naval Architect for the USSB, and, acting upon the instructions of Denman, but drawing upon the Donnelly concept, proceeded to produce plans for a vessel type that was to become one of the principal types constructed

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during the program. The use of diesel and electrical power for propulsion, which had been promoted by Donnelly, however, was quietly shelved. By July 1917, Ferris had completed plans and specifications for a standard 3,500 ton wooden steamship that was to bear his name and would become synonymous with the program.³⁶ The following is an extended extract describing the design and specifications for the Ferris Ships.

The principal dimensions of the ships were as follows:

Length overall	281 feet 6 inches
Length between perpendiculars	268 feet beam, over planking 46 feet
Depth, molded at side of upper deck	26 feet
Load draft from bottom of keel shoe	23 feet 6 inches
Total estimated deadweight	3,500 long tons
Sea speed, loaded	10 knots
Indicated horsepower	1,400 [35]

Estimated Weights

The estimated weights of the standard wooden ships as furnished by Ferris were as follows:

<i>Item</i>	<i>Yellow Pine Ship Long Tons</i>	<i>Douglas Fir Ship Long Tons</i>
Wood in hull	1,827.0	1,827.0
Fastenings	145.7	145.7
Anchors and cables	31.4	31.4
Paint and caulking	10.0	10.0
Forgings and castings	35.0	35.0
Hull piping and machinery	50.0	50.0
Two guns	7.0	7.0
Miscellaneous outfit	27.9	27.9
Total hull weight	1,980.0	2,134.0
Propelling machinery	275.0	275.0
Deadweight	3,625.0	3,421.0
Displacement at 23'6" S.W	5,880.0	5,830.0

These figures for the wood hull were based on bills of material after deducting scrap, and for lumber of about 18 percent moisture. With green lumber well weight was computed at about 12 percent more.³⁷

General Arrangement

The vessel was of the single deck type with hold beams and shifting 'tween decks with wood deckhouses on the bridge and poop decks. The vessel had a straight stem and elliptical stern and was fitted with two wood pole masts rigged with cargo booms, and one smokestack. Four cargo hatches were provided in the upper deck and a small hatch in the poop deck.

Four caulked watertight wooden bulkheads extended to the upper deck, forming two cargo holds and the machinery space. There was a deep tank forward of amidships for water ballast and also water tanks for boiler feed. Culinary water was to be carried in separate steel tanks located in the engine room. The after peak was piped for fresh water for boiler feed and for salt water for the trimming tank. The fore peak was piped for fresh water only. Steam winches were fitted at the hatches for working the cargo booms.

The amidships deckhouses on the bridge deck contained the officers' quarters, chart room, wireless, gunners, quarters for petty officers, engineers, cooks, oilers, messmen, etc. The bridge space was used for coal or cargo and a part of the poop space for stores or cargo. Awnings were to be fitted over the bridge abreast the wheelhouse, over the boat deck between the officers' house and wireless house, abreast of the officers' house, abreast of the steering house, and around

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the stern at the poop deck.³⁸

Propulsion

The propelling machinery was to consist of one triple expansion engine; two single-ended Scotch boilers or watertube boilers fitted with heated forced draft for coal burning with one fire room, together with all necessary auxiliaries, electric light plant, steam winches, warping capstan, steam windlass, steam and auxiliary hand-steering gear, ice machine, steam heating system and complete drainage system. Twin-screw reciprocating or geared turbine steam propelling machinery could be substituted for the single screw propelling machinery, subject to approval of the owners.³⁹

Materials

The timber and lumber used in the construction of this vessel could be either dense southern yellow pine as graded by the Southern Pine Association, or Douglas fir.

The entire hull was to be of yellow pine except the stem post, rudder post, rudder stock, horn timber, shaft log and keel shoe, which was to be of white oak. Wood knees were to be of hackmatack or oak. Treenails were to be of locust or split oak. Joiner sheathing and decks, where specified, and were to be of cypress.⁴⁰

Hull Construction

The keel was of yellow pine 16 inches by 14 inches, to which was fitted a shoe of white oak 3 inches thick and 16 inches wide.

The stem of yellow pine was sided 16 inches and molded 20 inches. The apron of yellow pine was 16 inches by 16 inches backed up with a second apron of the same size. Both aprons were to be of one length, extending to the forecastle deck. The stem grip was of white oak sided the same as the stem. The knightheads were of yellow pine sided 20 inches and molded the same as the frames, fayed up to inside the apron. The forward deadwood and knee were of yellow pine sided 16 inches and molded 18 inches, extending from through the floors forward for receiving the heels of the cant frames. The knee was of hackmatack or oak, connecting the keel to the stem grip, and apron 16 inches sided with long arms. The forward deadwoods were of yellow pine sided 16 inches, bedded in between the top keelson and apron.

The outside and inside stem posts were of white oak sided 28 inches in way of the shaft log 16 inches above the keel and at head molded 24 inches. The lower end of each post was tapered to the siding of the keel and was to have a tenon 5 by 12 by 14 inches fastened with two 13/8 inch treenails. Each stem post extended to the upper deck and was fastened to the deck beams. The after side of the outer post was rounded out above and below the stem bush casting for an easy flow of the water.

The shaft log was of white oak built up in four pieces 14 by 14 inches bored out to receive the stem tube. The after deadwood and knee were of yellow pine sided 16 inches and molded 18 inches, extending from through the frame floor aft to the stem post for receiving the heels of the cant frames. The after deadwoods were of yellow pine sided 16 inches, bedded in between the top of the shaft log and inner stem post.

The rudder post was of white oak sided 16 inches, molded 18 inches, and was to have a tenon in the keel 5 by 12 by 14 inches fastened with two 1 3/8 inch treenails.⁴¹

Framing

The rudder stock was to be of a select white oak finished 18 inches in diameter. The rudder blade was built up of yellow pine tapered to 14 inches at the after edge.

The main frames were to be double-sawed of yellow pine. The bilge frames were to be worked out of crooked oak, straight fir or wide yellow pine, sided 12 inches, molded on keel 18 inches, at turn of bilge 16 inches, at top of bilge 12 inches, at upper deck 10 inches, at bridge, forecastle and poop deck, 8 inches; also at bulwark rail, 8 inches. The frames were to be spaced 36 inches center to center. In way of the bridge, forecastle and poop, the frames continued up double.

There were eight main keelsons of yellow pine 14 by 14 inches, and on each side girder keelsons of yellow pine were arranged on the midship section, the first strake 10 by 14 inches, and the second and third strakes 8 by 14 inches. The first and second strakes were worked the full length between the peak bulkheads, the third or top strake, was to be worked for

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about three-fifths the length amidships.⁴²

Ceiling and Planking

The bottom and side ceiling were all to be of yellow pine. The bottom ceiling was to measure 8 by 12 inches, the side ceiling 10 by 12 inches. One strake of the side ceiling on each side was to be 12 by 12 inches locked over the frames, as shown on the midship section. There were three strakes of bilge ceiling on each side of yellow pine, 14 by 14 inches, with five strakes between 12 by 14 inches. The garboard strakes were to be of yellow pine; the first strake, 10 by 14 inches; the second strake, 8 by 14 inches; third strake, 6 by 14 inches.

The outside planking, also of yellow pine, was indicated as follows: bottom planking, 5 by 14 inches; bilge planking, 6 by 10 inches; side planking, 5 by 10 inches, 5 by 9 inches, and 5 by 8 inches; topside planking, 6 by 9 inches. Between the planking and the frames was a system of iron strapping arranged as follows: At the upper deck beams was a top chord, 8 inches by 3/4 inch, extending from 12 feet forward of the forward hatch to 12 feet aft of the after hatch. The plates in this chord were connected by triple riveted butt straps and were fastened to each frame by two 1-inch by 10-inch bolts, staggered. Diagonal straps of 4 inch by 112-inch iron, let into the outside of the frames, and inclined at 45 degrees each way, were fitted so as to meet at the top chord in every frame space. The diagonals were connected to the chord by two 7/8 inch rivets at each crossing by one 1-inch rivet. They were also fastened to each frame timber by one 1-inch by 10 inch bolt. The diagonals were to be carried well down and wrapped around the bilge far enough to overlap the ends of the floor timbers.⁴³

Decks

At the upper deck were two strakes of deck beam shelf timbers on each side, 10 inches by 12 inches, one lock strake, 12 by 12 inches locked 2 inches over the beams, and one bosom strake, 14 by 14 inches. The hold beam shelf timbers consisted of one strake, 10 inches by 12 inches on each side, and one lock strake 12 inches by 12 inches, while below the hold beams was one strake 12 by 14 inches, one lock strake 14 by 14 inches and one bosom strake 14 by 14 inches.

The upper deck beams were to be of yellow pine, sided 12 inches, molded 14 inches, worked with 9-inch crown shape 5 inches and spring, 4 inches. The beams were to be doubled at the hatch and engine and boiler openings. The beams were to be spaced about 4 feet center to center. In the way of hatches and other openings carlin beams were to be fitted, sided 8 inches, molded 14 inches.

The hold beams were of yellow pine, sided 14 inches and molded 16 inches. They were fitted throughout the hull between hatches and other upper deck openings, spaced about 4 feet centers. Beam and filling timbers, spaced about 4 feet apart, were to be fitted between the upper and lower shelf timbers where through-hold beams were not fitted.⁴⁴

Stanchions

In the way of hatch coamings, there were to be fitted on each side continuous from the forecastlehead bulkhead to the poop bulkhead deck girders made up of two 14- by 14-inch and one 12- by 12-inch timbers, with 14- by 14-inch hatch header and filling timber between through beams. The hatch-end coamings were to be made up with 14- by 14-inch and 12- by 12-inch toe fitted into the girder timbers, forming the remainder of the hatch coamings, 10 by 10 inches.

Center and wing stanchions of yellow pine, 12 by 12 inches, were to be spaced and located as shown on the framing plans. The center stanchions were connected to the keelsons with 8-inch wood knees, one stanchion in way of each hold beam, connected at the hold beam with two 3/4 by 4-inch iron straps fastened with six 7/8-inch screw bolts; also connected to upper deck beams in a similar manner.

Iron tie rods, 1 1/2 inches diameter with turnbuckles, were to be fitted in way of the upper beams and hold beams, spaced about every fourth beam.⁴⁵

Bulkheads

Forward of the boiler room bulkhead extending into the hold was a deep water tank for water ballast, extending up to the line of the hold beams. The bulkhead was to be of 3- by 8-inch double diagonal yellow pine, with studding of 8- by 12-inch yellow pine spaced 24 inches apart. The center fore-and-aft bulkhead was to be of yellow pine 6 inches thick with

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8- by 12-inch yellow pine studding, spaced about 30 inches apart. These tanks were to have a capacity of about 350 tons of salt water. Aft of the engine room bulkhead on each side of the thrust recess, extending up to the line of the hold beams, were tanks for boiler feed having a capacity of about 80 tons of fresh water. The tanks were to be constructed in the same manner as the deepwater tanks. The forepeak tank was arranged for carrying fresh water. The after peak was arranged for carrying fresh water for boiler feed and for salt water for trimming pure.

Between the engine and fire room was to be erected a steel screen bulkhead built of plating 3/16-inch thick, stiffened with 2 1/2 by 1/4-inch angles, spaced about 24 inches apart. The bulkhead was to fit partly around the boilers and to have a hinged door for passage from the engine to fire room.⁴⁶

Fastenings

In the matter of fastenings, the following was provided as specifications: All fastenings were to be equal to the requirements of the American Bureau of Shipping and, in accordance with the following plans of fastenings: all nail, spike and bolt iron fastenings were to be galvanized as were all clinch rings; screw bolt fastenings were to be used where necessary; all bolt, iron fastenings through yellow pine or fir wood for bolts up to 24 inches in length were to be driven with about 1/8-inch drift; for bolts exceeding 24 inches in length driven drift of 1/16 inch; for bolts through oak, 1/16-inch drift; all bolts driven over clinch rings were to be well headed and blunt or drift bolts pointed where necessary; all bolt fastenings in outside planking, waterways, plankshears, tails and weather bulkheads, and all bolt or spike fastenings in weather deck were to be plugged with white or yellow pine plugs dipped in white lead paint. The treenails were to be of good grade split locust, oak or other approved wood and wedged on both ends across the grain of the wood through which they were driven. As many treenails as possible, at least one half, were to be driven through and wedged on both ends. Tie rods and screw bolts, where necessary were to be set up in large, heavy plate washers.⁴⁷

Boilers

Steam was to be furnished at 190 pounds per square inch working pressure by two three-furnace, marine type, coal burning boilers, constructed in accordance with the United States Steamboat Inspection Rules and those of the American Bureau of Shipping. Each boiler was to be 14 feet 6 inches inside diameter and 11 feet 2 inches long overall. The total effective boiler heating surface was to be 4,500 square feet, and the total grate area 105 square feet.

Each boiler was to have three independent combustion chambers. The tubes were to be 2 1/2 inch outside diameter of charcoal iron lap-welded. Each boiler was fitted with three corrugated furnaces of the Morison suspension type of 42 inches inside diameter.

The boilers were to be located in a single stokehold with a common fireroom, and the products of combustion were to be led up a single stack reaching to a height of about 76 feet above the base line.

As an alternative for Scotch boilers, the following watertube boilers were considered acceptable: Babcock & Wilcox, Howden, Yarrow or Mosher, with a heating surface of not less than 5,000 square feet. Other types of watertube boilers were also considered with the stipulation that the heating surface meet approval.⁴⁸

Propelling Machinery, Single Screw Ship

For a single screw ship, fitted with a reciprocating engine, the main engine was to be of the triple expansion type with cylinders 19 by 32 1/4 by 54 inches diameter, with a common stroke of 42 inches. The engine was to be built for a piston speed of about 630 feet per minute and capable of developing 90 revolutions per minute with the ship at the load draft. The engine was designed to develop 1,400 indicated horsepower when working under full boiler pressure, with no live steam passing the high pressure cylinder and no live steam in the receivers.

Engines of a size different from the above were, however, acceptable if capable of meeting the desired conditions, as regarded indicated horsepower and piston speed.

The framing of the main engine consisted of cast iron housings, while the bed plate was of cast iron. The main valves for the high pressure and intermediate pressure cylinders were of the piston type with a double-ported slide valve for the low pressure cylinder. The valve gear was to be of the Stephenson link motion with double bar links.

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There was be worked off the main engine, by beams, attached pumps consisting of a main air pump and two bilge pumps. The operating platform was to be on the starboard side at the engine room floor.

The crankshaft was in two sections of "the built-up type," secured by solid forged steel couplings and straight coupling bolts. The piston rods, connecting rods, shafting and working parts generally were forged of open-hearth steel. The crank shaft was 11 1/4 inches diameter. The line shafting was 10 5/8 inch diameter and the thrust shaft 11 1/4 inches diameter, while the propeller shaft was 12 inches diameter.

The four-bladed propeller was to be of cast iron.

Steam from the main engine was exhausted into a single condenser, containing about 2,500 square feet of condensing surface. Cooling water was supplied by one main centrifugal type circulating pump with 12-inch suction and discharge and a capacity of 2,000 gallons per minute against a head of 15 feet. The engine for driving the circulating pump was to be of the vertical type. The main air pump of the Edwards type worked off the low-pressure crosshead of the main engine. The pump was 22 inches diameter by 18 inches stroke. Two bilge pumps of 3 1/2 inches diameter by 18 inches stroke were also worked off the low-pressure crosshead of the main engine.⁴⁹

Independent Pumps

Independent pumps were to include: two main and auxiliary feed, 10 by 6 by 12 inches, vertical simplex type; one general service, 10 by 6 by 10 inches, horizontal duplex; one fire, bilge and general service, 10 by 6 by 10 inches horizontal duplex; one sanitary, 6 by 5 3/4 by 6 inches horizontal duplex; one fresh water, 4 1/2 by 2 3/4 by 4 inches, horizontal duplex; and one evaporator feed, 4 1/2 by 2 3/4 by 4 inches, horizontal duplex.⁵⁰

Auxiliaries

To be located in the engine room was a forced draft fan driven by a direct-connected engine for supplying air for a system of heated forced draft. The fan was to be capable of continuously handling air for the combustion of 3,000 pounds of coal per hour at a pressure of 2 inches of water at the blower outlet. The fan was driven by a single fully enclosed dust- and moisture-proof vertical inverted cylinder high-speed steam engine.

In the fire room was to be a 6-inch hydraulic ash ejector operated by water from the fire and bilge and general service pumps.

Also located in the engine room was a feed water heater of sufficient capacity to heat 30,000 pounds of feed water per hour from 120 to 212 degrees Fahrenheit when using exhaust steam at 5 pounds per square inch gage. The rise in pressure of the feed water passing through the tubes was intended not to exceed 20 pounds per square inch.

There was also to be a feed and filter tank of 800 gallons capacity installed in the engine room.⁵¹

Propelling Machinery, Twin Screw Vessels

In the twin-screw vessels propelled by reciprocating engines, the boiler plant was to be identical with that of the single-screw vessels. The engines themselves were of the triple expansion type with cylinders 14 3/4 by 25 by 42 inches diameter with a common stroke of 27 inches. The engines would turn outboard when going ahead.

The engines were built for a piston speed of about 600 feet per minute and each engine was capable of developing 600 indicated horsepower at 133 revolutions per minute, when working under full boiler pressure with live steam in the receivers, and 700 indicated horsepower at 115 revolutions per minute, with no live steam in the receivers. Engines of different size from the above would be acceptable if they were capable of meeting the desired conditions of indicated horsepower and piston speed.

The framing of the main engine consisted of cast iron back housings and cast iron or forged steel front columns. The bed-plate was to be of cast iron. The main valves for the high pressure and intermediate cylinders were to be of the piston type with a slide valve for the low pressure cylinder. The valve gear was to be of the Stephenson link motion with double bar links.

The operating platform of each engine was to be on the inboard side at the engine room floor with reversing gear, throttles and stop valve gears, cylinder drains, receiver valve gears, etc., all collected at one point.

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The crank and thrust shafts were to be 8 inches in diameter, while the line shafting was 7 1/2 inches diameter. The propeller shaft was 8 1/2 inches diameter. The three-bladed propellers were to be of solid cast iron.⁵²

Engine Room Auxiliaries

Two main condensers were to be provided, each with a condensing surface of 1,300 square feet. There were also to be two main circulating pumps of the centrifugal type with 8-inch suction and discharge, each pump being driven by a vertical engine. The main air pumps were to be of the twin beam type, 7 1/2 by 17 1/2 by 10 inches.

The independent pumps required included the following: two main and auxiliary feed, 10 by 6 by 12 inches, vertical simplex; one general service, 10 by 6 by 10 inches horizontal duplex; one fire, bilge and general service by 6 by 10 inches, horizontal duplex; one sanitary 6 by 5 3/4 by 6 inches, horizontal duplex; one fresh water 4 1/2 by 2 3/4 by 4 inches, horizontal duplex; and one evaporator feed, 4 1/2 by 2 3/4 by 4 inches, horizontal duplex.

A feed water heater and feed and filter tanks and other auxiliaries were provided, similar to the equipment for the single screw ships.⁵³

Propelling Machinery, Single Screw Geared Turbines

For a single screw, geared turbine, coal-burning ship the propelling machinery was to be built to conform with and meet the requirements of the American Bureau of Shipping and the rules and inspection prescribed by the United States supervising inspectors of steam vessels.

The turbine was to be of the General Electric, Westinghouse, De Laval, Kerr or other approved make of 1,400 shaft horsepower and connected to the main shaft by double helical gearing. The revolutions of the main shaft were not to exceed 110 per minute. A backing turbine was to be incorporated in the same casing with the ahead turbine, and, when supplied with the same amount of steam as used for full load conditions, would develop not less than two-thirds of the full power ahead torque on not more than two-thirds of the full speed revolutions per minute.

With steam at 180 pounds gage pressure at the throttle and 28 inches vacuum in the condenser, and at normal full power revolutions, the steam consumption would not exceed 12.5 pounds per shaft horsepower per hour.

The thrust bearing was to be of the Kingsbury type, incorporated in the low speed gear and casing. The propeller was of cast iron, solid, four-bladed.

The engine and fire room auxiliaries were to be the same as in the single screw ship driven with reciprocating engines with the exception of the main air pump, which was to be of the twin-beam type, 12 to 28 inches by 18 inches. There was also to be an auxiliary combined air and circulating pump, 10 by 12 by 12 inches, horizontal duplex.⁵⁴

Form of Contract

Ferris's recommendations, which were quickly adopted by the USSB, were that contracts for the construction of the standard type wooden vessel should be let on a lump-sum basis only. According to the terms of the contract, for an order for twelve ships the USSB would agree to pay a certain sum within thirty days after signing the contract; 5 percent of the contract price of all twelve ships within sixty days after signing the contract; 5 percent of the contract price of all twelve ships within ninety days after signing the contract.

When the keel of each ship was laid there was to be paid 20 percent of the price of the ship. When each such ship was completely framed, 30 percent of the price of the ship was to be paid. When each such ship was launched, 15 percent of the price of the ship was to be paid. When the machinery in each ship was installed, 10 percent of the price of the ship was to be paid and the balance on each ship was then to be paid thirty days after delivery to and acceptance thereof by the owner.

Before final acceptance of the ship, the owner was permitted to make at the contractor's expense a dock trial not exceeding six hours, or a sea trial not to exceed four hours at some point convenient to the contractor's yard.

Inspectors appointed by the owner were to inspect all materials and workmanship entering into the construction of the ship, and these inspectors were to be authorized to reject all materials and all workmanship which did not comply to the specifications agreed to.

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The owner could reserve the right by orders in writing to make such reasonable improvements, additions, or substitutions not materially affecting the general design of the vessel as the owner may deem necessary. Such changes or alterations were to be compensated for by the owner.⁵⁵

The Hough and Other Designs

The EFC would eventually let contracts for more than 500 wooden steamships during the wartime period, but later canceled some 200 of them. Although they attracted less attention than cargo steamers, the EFC would also build sailing vessels, barges, ocean and harbor tugs, and even a wooden tanker, as well as concrete ships, and, of course, steel hulled vessels. Although the Ferris type would serve as the primary wooden cargo vessel of the program, other vessel designs, mostly variations of the Ferris type, were also constructed. These included: Allen, Daugherty, Grays Harbor (or Ward), McClelland, Pacific American, Peninsula, Seattle (or Geary), Supple and Ballin, and Hough. McClelland and Supple and Balin represented experimental variations of the basic wooden steamship called a composite. Given dimensions similar to the wooden steamship, the composite consisted of a steel frame with wooden plating intended both to provide added structural strength and to alleviate the problem of obtaining large timbers for the keel and keelsons. These ships proved to be quite expensive, however, and very difficult to synthesize and only a few were built.⁵⁶

For the most part, however, the majority of the wooden steamship types were of similar configurations, although they ranged in size to 5,000 tons. Yet, the Hough design, produced by Edward S. Hough, of San Francisco, which was significantly different in hull configuration from the standard Ferris hull, would eventually gain the second widest acceptance of wooden vessels constructed during the Emergency Fleet program. Unlike the Ferris type, for the greater part of the length of this vessel the sides were flat and the bottom V-shaped, with a deadrise of 3 feet. With this form of hull, the majority of the frames were straight 12-inch by 12-inch timbers, a common stock size of timber, generally known as "mill run" lumber. As the sides and bottom were straight for the greater part of the length, most of the planking and ceiling was also straight-line work, and could be gotten out in a minimum of time with a minimum of hand labor.⁵⁷

As the Hough hull design closely resembled that of a barge, the building of the ship required very much less shaping and molding than was the case with the usual Ferris ship model. Not only were the timbers and planking for the most part straight, and therefore could be quickly and accurately cut at the mills, but also the fastenings and connections were such that time could be saved in checking and fitting the planks and timbers as compared with the ordinary ship form of vessel. An important advantage of the design was the fact that very little frame or surface dubbing was required, and with the straight-sided machine-cut planking the caulking was more easily and quickly performed.

A raised forecastle deck and a house aft provided gun platforms, on which were mounted rapid-fire guns for defense against submarine attack. Amidships was a bridge deck, above which was a boat deck, and in the midship deckhouse all hands were to be quartered.⁵⁸

General Arrangement

Propulsion was to be facilitated by two sets of triple expansion reciprocating engines, supplied with steam by two boilers operating under forced draft. Geared turbine propelling machinery could be substituted for the reciprocating engines at the option of the builder.

The hull was subdivided by six traverse bulkheads below the main deck. A double bottom extended from the forward collision bulkhead to the inboard end of the stern tube, and this was subdivided at the traverse bulkheads. These spaces were used for water ballast and were piped for filling and emptying as usual.

A longitudinal centerline bulkhead extended the full length of the ship from the forward to the after collision bulkhead and up to the main deck. This bulkhead was built up of 6-inch by 8-inch edge-bolted material, faced on both sides with 4-inch by 12-inch planking worked diagonally and landing against a continuous sill at the top and bottom. This bulkhead was not caulked and openings were provided.

Cargo was handled through three sets of twin hatches by means of six cargo booms of 5 tons capacity each, fitted to

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the masts and served by steam winches.

Fresh water was carried in steel tanks stowed about the machinery spaces and at the stern of the ship. Provision was made for 80 tons of fresh water for boiler use and 30 tons for culinary purposes.

The vessel was thoroughly equipped with auxiliary machinery, including an electric light plant, steam winches, steam capstan, steam windlass, steam-steering gear with hand auxiliary, an ice machine, a steam heating system and a pump and drainage system.⁵⁹

Keel and Keelson

The keel consisted of a timber, 12 inches by 18 inches, in long lengths fastened with 1 1/4-inch headed bolts set up over clinch rings at the bottom. The keel was fastened to the center keelson and to the top floor timbers as follows: In each bay one 1 1/8-inch drift bolt driven from the inside and clinched over a ring outside; in each bay 1 1/4-inch headed bolts driven from the inside and clinched over rings on the bottom of the keel; at each frame two 1 1/8-inch drift bolts were driven from the inside clinched over rings outside.

The keel was protected by a shoe 3 inches thick by 18 inches wide.⁶⁰

Stem and Stern Post

The stem, sided 18 inches and molded 24 inches, was 46 feet long and scharfed to a natural knee at the forefoot. A half round iron band, 5 inches wide, extended from the stem head down to the 2 feet below the light waterline, and was wrapped over and fastened to a 3/4-inch by 10-inch flat band extending around the forefoot over the keel split and spread at the end. The apron, sided 18 inches and molded 24 inches, was in one length, extending to the forecastle deck. The knightsheads were in one length to the forecastle head, sided 24 inches and molded 12 inches. A natural knee connected the stem to the keel and the deadwoods were chocked into the keelson and apron.

The sternpost was 48 inches fore-and-aft and 18 inches wide, bearded aft neat the rudder to 12 inches wide. The bottom was fitted with a cast-steel shoe, carrying the bottom rudder pintal and the top was chocked solid at the deck beam and kneed off sideways. A rudder trunk was built on the after side of the post, fitted with a round lead sleeve turned over and made tight top and bottom. A cast-steel bearing lined with lignum vitae was placed at the bottom of the sleeve and a cast-iron stuffing box at the top. The deadwoods were worked diagonally, a natural knee being fitted at the junction of the keel and sternpost. Two horn timbers, 18 inches by 20 inches and about 24 feet long, were placed one on each side of the sternpost connecting with the rim and landed on the frames.

The rudder was built up of two 112-inch steel plates set apart 24-inches, stiffened by horizontal web plates and angles. The rudder stock was of forged steel.⁶¹

Framing

The side frames were double, 12 inches by 12 inches, spaced 36 inches centers throughout and extending from the bilge to the upper deck. In the way of the bridge house they were single, one leg of the frame being in one length from the bilge to the upper deck, the lower end of the leg butting and the other lapping the traverse floor timber.

Cant frames, of the same siding and molding as the main frame, were built up at the ends of the vessel and well fitted to the deadwood.

The bottom floor timbers were double 12 inches by 12 inches butted, and secured by an anchor stock piece the same width as the frame. The top timbers were single, except under the machinery, and were 12 inches by 12 inches in one length.

The bottom timbers and heels of the frame were fastened together by two 1-inch screw bolts, each with plate washers under the head and nut. At the heels of the frames the bays were chocked and made watertight with a stop-water at each side of the chock, shutting off the bottom from the side spaces. Each anchor stock piece was fastened to a bottom floor timber by two 1 1/8-inch screw bolts each side of the center.

Under the machinery the top floor timbers were doubled and the spaces between the top and bottom floor timbers were chocked in solid.

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The side ceiling was 10 inches by 12 inches, the three up and bottom strakes being scharfed 7 feet. The bilge ceiling consisted of four strakes 10 inches by 12 inches and one strake built up of two pieces 10 inches by 18 inches with 8-foot laps. All four strakes were edge-bolted and fastened to the floors. The first two strakes were edge bolted to the bilge log.
⁶²

Planking

The garboard strake was 8 inches by 16 inches edge-bolted to the keel, with 7/8-inch iron in alternate frame spaces. It was fastened to every frame with four 1-inch by 20-inch buttonhead bolts with the heads countersunk and cemented.

The bottom and side planking was 5 inches thick, varying from 16 inches in width at the garboard to 12 inches at the bilge and from 12 inches to 10 inches at the sides. Several strakes of 6-inch planking were provided at the bilge and wales.
⁶³

Iron Strapping

In addition to the longitudinal and traverse bulkheads and double bottom, the hull was further strengthened by iron strapping which extended from well forward of No. 1 hatch to abaft of No. 3 hatch. Diagonal iron straps, 1/2 inch by 4 inches, were let into the outside of the frames and inclined at 45 degrees each way. These were fitted so as to meet at the top butt in every other frame space.

The diagonals were connected at the top butt by two 7/8-inch rivets and at each crossing by one 1 inch fitted bolt. They were also fastened to each frame timber by an inch by 10-inch counter-sunk head blunt bolt. The bottom was securely fastened at the bilge corner.
⁶⁴

Decks

At the main and upper decks were clamps and shelves built up as follows: The clamp at the main deck was 14 inches by 16 inches, the shelf consisting of four strakes each 10 inches by 12 inches; two strakes being locked 2 inches into the beams. The upper deck clamp was 12 inches by 14 inches, while the shaft strakes, of which there were four, were 8 inches by 12 inches.

The upper deck beams were 12 inches by 14 inches, spaced about 30 inches centers and which possessed a 7-inch camber. They were doubled at the hatch ends and boiler openings. Half beams were landed on a fore- and-aft sill, 4 inches by 14 inches, and pulled up to the deck coamings by screw bolts.

The main deck beams were 14 inches by 14 inches, spaced about 48 inches centers doubled at the hatch ends. The main deck ('tween deck) was laid solid with 4-inch by 8-inch planking and caulked.
⁶⁵

Tie Rods

Tie rods, 1 1/2 inches diameter, were fitted from the sides of the vessel to the hatch sills at the upper and main decks. Two were provided in way of each hatch. At the hatch end and at every fourth beam between hatches the tie rods extended clear across the vessel and were fitted with turnbuckles.
⁶⁶

Web Frames

Web frames were built in at the hatch ends and elsewhere spaced about 9 feet centers. They consisted of vertical pieces butting against the knee at the bilge corner and the upper deck and were fastened together so as to make solid works.

Two of the distinctive features of this vessel, the central longitudinal bulkhead in conjunction with twin hatches and the construction of the bottom, were patented by the designer.
⁶⁷

Construction Program

Problems beleaguered the wooden steamship program throughout the fall of 1917 and continued with little improvement during 1918. For the necessary timber the EFC selected dense varieties indigenous yet believed to be plentiful to the region where the ships were built — white pine in the Maine shipyards, longleaf yellow pine in the South, and Douglas fir on the Pacific Coast. Total footage varied from model to model and increased with the many subsequent

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alterations that soon became commonplace during the program. The typical Ferris yellow pine ship required approximately 1,500,000 board feet and the Douglas fir about 1,700,000. Although as early as July 1917 massive orders for suitable timber for the construction of keels, frames, and hull planking had been placed with organizations such as the Southern Pine Growers Association, it was not until October, however, that orders for the first 433 ships were approved. Another month passed before construction contracts for 310 ships were let. Paperwork and bureaucracy proliferated. Still, the EFC was predicting that 6,000,000 tons of shipping would be produced by the end of the following year, 255,000 of which was to be built of wood.⁶⁸

By November organized chaos seemed to have befallen the program. Problems included difficulty in obtaining timbers of adequate size, overestimation by lumber dealers of their ability to deliver promptly, a scarcity of railroad cars, labor shortages at all levels, the inexperience of many shipbuilders, and the excessive sale by lumber mills to other buyers of choice timbers required by the EFC. Pine mills on the Atlantic and Gulf Coasts discovered that they could not deliver in quantity many of the timbers required by the Ferris model which called for some as large as 16 and 24 inches by 40 feet. The years of clear cutting of forests in the South, in fact, were having a telling effect on the size of timber now available. Pacific Coast lumbermen partially relieved the situation by forwarding several thousand carloads of Douglas fir to Gulf and Atlantic shipyards. Indeed, in a single month, Oregon produced a record setting 90 million board feet. Nevertheless, Ferris was soon obliged to modify his original design and reduced the need for larger timbers; however, the lumbermen then complained that, in the process, he added 100,000 board feet to the total amount required per vessel. Logistical problems in transporting timber resulted in the sidetracking of large quantities of timber. That which reached the constructors was green, but was employed nevertheless. As early as October 1917 the Committee on Public Information at Washington had publicly announced that wooden shipyards building ships for the government were desperately in need of white oak construction timbers or logs of good quality. Logs measuring 28 inches in diameter at the smaller end were being valued at from \$50 to \$60 per thousand board feet, measured in the log. Sticks, hewed or sawed, of this size, at \$70 to \$80 per thousand board feet, loaded on the cars under 200 miles from the shipyard were sought with an almost religious fervor. These prices, however, were noted as applying only to the South Atlantic and Gulf yards.⁶⁹

Many steamship contractors lacked building sites with essential railroad connections and living facilities for employees, while their frequent absence of business experience coupled with undercapitalization further added to these burdens. The EFC compounded these circumstances in the beginning: it released hull designs months before machinery details, neglected the creation of installation yards to fit out the hulls, and failed to establish a priority system for the delivery of the large timbers critically needed by the EFC for the higher prices paid by both commercial buyers and the War Department. By December 1917, the EFC was obliged to place an embargo on the sale of timbers with ten-inch widths or larger and lengths of twenty feet or more.⁷⁰

On March 18, 1918, an announcement was made that the first wooden Ferris type ship on the Atlantic Coast would be launched into the Passaic River at the Kearney plant of the Foundation Company at 3 p.m. the following day. The ship was to be christened by Miss Phyllis Hughes, daughter of the late U.S. Senator, William Hughes, who had been selected for the honor by Hurley. The keel of the ship, to be named *Coyote*, had been laid on November 12, 1917. *Coyote* was the first hull in the program to hit the water, and though months of more work would be required before she could enter service, Admiral Pryor offered his congratulations to H.I. Crosby, Superintendent of Construction, for getting the hull in the water so soon. By late fall the ship had been delivered to the EFC, and by December 7, 1918 had entered the service of the Potter Transpiration Co., Inc., of New York. She was soon employed in making voyages to the West Indies and in the coastwise trade.⁷¹

On May 1, 1918 the USSB's Planning and Statistics Division released a report expressing serious doubt as to the efficacy of wooden steamships for ocean service. It criticized their limited cargo capacity, uncertain life expectancy, and interference with the more necessary steel ship production. Indeed, that time not a single completed wooden cargo vessel had been delivered. Yet progress was being made. By September 1918, although loss of allied shipping for the previous

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month totaled 21,404,913 deadweight tons and exceeded gains brought by ship production by 3,362,088, an excess of building over losses per month occurred in August for the first time since December 1915. The United States had taken rank for the first time in history as the world's leading shipbuilder.⁷²

On December 1, 1917 the first wooden bottom of the program to be launched on the Pacific Coast, the *North Bend*, a vessel of 240 feet in length and 4,000 deadweight tons, was launched after a record 120 days of construction, but a full eight months after America's entry into the war. Not until May 24, 1918, however, would she finally be outfitted, undergo sea trials, be readied for sea duty and delivered.⁷³

Yet, there were continued production miracles. One such marvel was the building of the wooden steamship *Aberdeen* by the Grays Harbor Motorship Corporation of Aberdeen, Washington. It was later stated that the company had entered the project with "the view of demonstrating that the Grays Harbor Motorship Corporation had the most efficient shipbuilding organization in the entire world." The company had been let contracts to build four wooden steamships about July 1917, and had been ordered to deliver its first ship on January 15, 1918.

Aberdeen, a steamship that would soon gain a reputation as having been constructed in quicker time than any vessel of similar tonnage in the world, "thus perpetuating the name of the greatest shipbuilding district on either continent." Preparatory to construction of the ship, the yard management, after conferring with the various foremen, had prepared a chart which would soon stand, according to company and USSB promotions later on, "as the greatest piece of outline work in the history of ship construction."⁷⁴ Ferris himself would later state:

*It represents the most remarkable construction schedule I have ever seen out of any yard, and the great thing about it is, it proves an organization for doing things you certainly ought to be proud of: There are any number of fellows who can estimate what ought to be done, but only once in a while you can find a fellow who can do what he estimated.*⁷⁵

The *Aberdeen* was adapted from the Ferris plan format and designed by M.R. Ward, General Manager and Designer for Grays Harbor Motorship Corporation, and became known as the "Ward" type (later referred to as Grays Harbor type), approved by the USSB. She was 290 feet over all, 49 feet abeam, and 28.2 molded depth, being 4,000 tons deadweight capacity, and equipped with twin engines of 700 horsepower each.⁷⁶

In building *Aberdeen*, every record in the construction of a ship was smashed. Three shifts, working 7 1/2 hours each, were employed in building *Aberdeen*. The following record stood as benchmarks for later constructors: laying of keel, 10 seconds; assembling, building, erecting and shoring 73 square frames, 29 hours, 26 minutes; ceiling, 151 hours; planking, 228 1/2 hours; from keel laying to launching, with superstructure 96 percent complete, and auxiliary engine installation 40 percent complete, 17 1/2 days. Her keel was laid at 8:00 a.m., September 9, 1918, and the bow-launching took place September 28, at 9:00 p.m. Engine installation required six days. On Sunday October 6, *Aberdeen* set off on her trial trip, laden with 200 passengers, out into the Pacific Ocean.⁷⁷

By October only 134 wooden steamships had been completed, and another 263 were less than half finished.⁷⁸ Then, on November 11, 1918, Germany surrendered. Not a single wooden ship built during the program had sailed into a European port during hostilities. Yet, owing to contractual agreements, vessels continued coming off the line even after the war ended. Contractors had completed and delivered 87 wooden and nine composite vessels ready for sea. Fifty-five wooden and seven composite ships had either carried cargoes or sailed in ballast for loading ports by November 11. Most were engaged in either Hawaiian or coastwise service and bore light and general cargo. The EFC had lost only three during 1918 — bad weather had wrecked the steamer *Blackford* near Arica, Chile, and the steamer *Coos Bay* off the coast of California. Lightning struck and burned the steamer *Dumaru* near Guam. But the ships kept coming off the ways.⁷⁹

Despite criticisms during Congressional investigations, there were many examples of excellent field performance of the wooden and composite steamships available to counter the program's critics. One such example was that of the composite ship *Obak*, the fifth of a fleet of six composites of 3,500 deadweight tons, which had been reported completed in early 1919 by her builder, the Mobile Shipbuilding Company of Mobile, Alabama, and confirmed by a member of the

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EFC's office in New Orleans. Begun as Hull No. 314, and christened *Obak*, on her sea trial trip in the Gulf of Mexico, on March 27, she had averaged 12.01 knots, an excess of 2.01 knots an hour above the contract requirement. She had sailed out of the Mobile yard at 9:15 a.m. and on reaching the Gulf, after the compass was adjusted, was put in a straight-away course and worked the required six hours without a hitch. From full speed ahead, she was brought to standstill in two minutes, which was one and a half minutes faster than any known on record to that date. Shift of the throttle was achieved in five seconds.⁸⁰

Despite congressional indignation, ships continued to slide off the ways, although immediately after the Armistice, production slackened. Many vessels were soon integrated in the coastwise trade, and in transoceanic commerce. Up to December 1, 1918, a total of 101 wooden ships had been completed, 94 of which had entered active service. Of 85 of these, for which government tracking records were available, a total of 305 voyages had been made covering a total of 490,422 statute miles. The record revealed that 194 of these voyages were with cargo representing a freight movement of approximately 485,000 tons, a total mileage of 319,092 statute miles. These vessels had been active in the Atlantic and Pacific coastwise trade and had traveled to the Hawaiian and Philippine Islands, to South America, and to Africa. The movement of cargo, it was reported in the trade journal *International Marine Engineering* (February 1919), had been accomplished with substantially no loss to the shippers. Indeed, it was noted in one example cited that practically all canned goods reaching the Hawaiian Islands had come by wooden steamships.⁸¹

In December 1918 wooden and composite delivery figures totaled 17, nine for January 1919, seven for February, and nine for March. In mid-1919 the numbers increased - 16 for April, 26 for May, 37 for June, 22 during July, and 34 by August. By mid-1919, 174 ships had been placed into service, even as the government now began to consider selling off the fleet piecemeal. In September a record 145 ships, steel, wood, and composite, totaling 788,053 deadweight tons, were delivered, the majority of which, however, were steel. By late 1919 deliveries dropped sharply, falling to one or two a month in early 1920, and ceasing entirely by July of that year.⁸²

The return of military personnel from Europe, the European relief program, and development of foreign trade routes by the United States in 1919 re-intensified national shipping needs. By early 1919 at least 26 wooden and composite ships were engaged in European commerce. Activity in Caribbean and South American waters increased, but at a slower rate. During the summer and fall of 1919, 167 wooden and composite ships traveled to and from Europe, and forty-nine carried cargoes along the East Coast. Shipping to all regions decreased dramatically in 1920 except for a slight rise in Caribbean traffic. Wooden and composite ships, despite criticism about them, continued to conduct more business with European and East Coast ports than others before the dark days of the massive "1920 tie-up." Indeed, optimism over the future of the American merchant marine was still sufficient enough to warrant the USSB to designate six wooden steamships for use in training merchant marine crews to be fitted out as cargo-carrying training cruisers. By March 1919, three of the vessels, the *Utoka*, *Alabat*, and *Brookdale*, had been officially assigned to training stations. *Utoka*, a Ferris type ship, built by the Gilchrist Yard at Thomaston, Maine, was 281.5 feet in length, 46 feet abeam, and 23 foot depth in hold, and was to be fitted out at Portland, Maine with accommodations for 300 apprentices, and then assigned to the Atlantic Training Station at Boston, where *Alabat* was already being fitted. *Brookdale*, a Grays Harbor (or Ward) type, built at Aberdeen, Washington, was assigned to the Seattle Training Station. Unfortunately, optimism — and the training programs — was to be short lived.⁸³

The decline in world commerce and consequent depression in shipbuilding during the early 1920s resulted in a vast withdrawal of both wooden and steel vessels from active service. Technological advances further diminished the utility of the wartime fleet, both wood and steel, as oil burners succeeded coal burners, turbine and turboelectric drives replaced reciprocating engines, and the internal combustion engine supplanted steam. Sales prices plummeted from 1918-1919 levels; wooden steamships, which sold for \$650,000 in 1919, brought only \$100,000 in 1921.⁸⁴

In 1920 the EFC was obliged to simply tie up many of the steel and most of the wooden ships in the 3,000 to 5,000 deadweight class. By early 1921 more than 400 steel and 264 wooden steamers were inactive in ports around the country.

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In 1920-1921, Rear Admiral William S. Benton, USSB Chairman, removed the majority of these vessels and moored them in the James about 35 miles northwest of Hampton Roads off Claremont, Virginia, and at City Point, Virginia, in order to curtail maintenance expenses.⁸⁵ There now seemed to be no expedient left but to auction the fleet off.

The move to dispose of the wooden steamship fleet formally began on April 15, 1920 when a special committee appointed by Admiral Benson, and chaired by Eugene Meyer, Jr., managing director of the War Finance Corporation, convened to make recommendations as to prices, terms, and conditions for the sale of the ships owned or still being constructed by the USSB. Then, on December 27, 1920 the USSB moved to dispose of nearly 300 wooden and composite ships totaling 994,235 deadweight tons. They were barely being kept afloat, pumped out by two tugs and an army of men at a cost of \$50,000 a month. Efforts to sell off the fleet piecemeal came to naught. In 1920 only four vessels were sold to United States and foreign buyers. In 1921 only 22 more were sold.⁸⁶

In the fall of 1922 the EFC offered the fleet for sale as a unit "as is and where is." Only four bids were submitted, the highest being \$12 per deadweight ton. Not surprisingly, the government refused to accept the bid. A second call went out for bids. This time the high bid was \$430,000 for the entire fleet. Congress protested that the bid was far too low, and the offer was rejected. Finally, in September 1922 a third bid was solicited and accepted. The fleet had been sold.⁸⁷

Movement to the Potomac River and the Western Marine Salvage Ship Reduction Program

During its life, the Emergency EFC had completed 296 wooden and 26 composite steamships through the termination of the building program; 283 of the former and all of the latter actually carried cargoes. Assigned primarily to supplement basic United States sea commerce, they had transported a wide variety of commodities. Coal and lumber headed the list, while others included sugar, grain, fruit, hides, and fertilizers. The EFC sold a combined 293, lost 27, and transferred two of them to the Navy Department. A total of 293 ships were sold, 16 of which were to foreign buyers, and 43 to various firms and individuals in the United States. The greatest number 234 (also reported as 233), totaling 855,931 deadweight tons (or 614,713 gross tons), were sold for \$862,000 to one George D. Perry and his silent partner, William F. Humphreys, who then transferred ownership of the fleet to what would briefly become the largest wooden shipbreaking firm in the United States, the Western Marine and Salvage Company (WM&SC) of Alexandria, Virginia, with headquarters in Portland, Oregon.⁸⁸ And the largest portion of that fleet, 218 vessels, which was at temporary "primary anchorage" in the James River, near City Point, Virginia, was destined to eventually come to rest in the Potomac River on the muddy floor of Mallow's Bay, Maryland, and off Widewater, Virginia.

WM&SC, "with the consent of the War Department," was then allocated a "secondary temporary anchorage" for dismantling the hulls at Widewater, Virginia, on the Potomac River, a site that would be approved once the company assumed ownership of the ships and posted a \$7,000 bond for every vessel moved to the new anchorage. From the Widewater anchorage it was planned the vessels would be moved, two at a time, to the shipyard of the Alexandria Shipbuilding Corporation (ASC) for reduction of all great metal components of each ship for scrap, and then back to the anchorage for further reduction. The ASC plant, located on the southern end of the city, had been erected in 40 days at the beginning of the war, and was then being leased to the Trent Amalgam Company. Following negotiations between the leasee and J. N. Barde, General Manager of WM&SC, an agreement was reached about October 11, 1922.⁸⁹

Established well off the main shipping channel, it was believed that the initial fleet anchorage off Widewater would pose only a minimal hazard to navigation. Moreover, its rural location would generate few objections from local residents as the shoreline was but sparsely inhabited. Yet, the anchorage area was a location of some historic note, and of some commercial consequence to the Potomac fisheries industry, as WM&SC would soon discover. From well before 1862 to at least the 1880s, Maryland and Virginia had been served by a ferry running from Sandy Point to Widewater, linking the town of Clifton, Virginia with Southern Maryland. The waters off Widewater were considered to be among the most bountiful commercial fishing areas of the entire Potomac, and had, for two centuries, yielded herring, shad, rockfish, and

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sturgeon. Indeed, by the 1880s the sturgeon industry was being serviced by a railroad terminal at Widewater, from which point Philadelphia-built fishing vessels were off loaded, and fish were transshipped. Sport fishing was also a rewarding pastime for many who took the trouble to travel to Widewater. Among those who did so was President Grover Cleveland who had made it one of his favorite retreats. In 1903 Professor Samuel Pierpont Langley, working under a War Department contract, had made history at Widewater when he flew his model of a "heavier-than-air plane" 3,000 feet in 90 seconds from the roof of his "houseboat laboratory."⁹⁰

By October 1922, the first vessels destined for dismantling operations at Alexandria, the ships *Mojave* and *Alanthus*, had arrived at the old Virginia Shipbuilding Corporation wharf. Both vessels were well known. *Alanthus* had gained international fame for playing a key role in the rescue of the crew of the United States submarine *S-5*, sunk off Cape Henlopen, Delaware in September 1920. Unlike her sister ship, *Mojave* gained fame as a veritable "hoodoo" ship, robbed in Spain, and followed by misfortune thereafter throughout her short career.⁹¹

Much was expected from the dismantling and salvage process. From the fleet, which laid bow to stern would have formed a line 12 miles long, it was estimated that between 150,000 to 200,000 tons of scrap iron and steel would be recovered, along with 5,000 tons of brass and copper, 12,000,000 feet of cable wire, 2,500 miles of piping, 162 Ferris type 1,400 horsepower engines, 64 turbine engines, 226 brass condensers, 452 water tube boilers, 2,260 steam pumps, 9,000 tons of water tanks, 5,000 drill presses, anvils, etc., 1,800 steam winches, 600 tons of rope, 12,000 steam and air gauges, and 5,500 tons of anchor chain, and stored in rented warehouses at the shipyard. The hulls of the ships would be reconditioned and sold for \$2,500 to \$5,000 as barges. It was expected that as many as 2,500 workmen would be required to conduct the salvage managed by 75 supervisors. It was expected the work would take three years at a monthly expenditure of \$80,000 per month. However, no more than 300 men would be engaged by the end of November, 1922.⁹²

The project, however, suffered from an immediate setback when a fire, started in the engine room of *Alanthus* by a dropped cigarette, broke out and engulfed both vessels. Although the conflagration was later termed "one of the most stubborn Alexandria fire fighters have battled," the two ships were ultimately saved, pumped out, then stripped of their machinery, and towed down the river to Widewater to await final disposal.⁹³

On November 7, the next consignment of ships, *Anoka* and *Brentwood*, arrived under tow from the James River by the tug *Diligent*. Within two weeks two more, *Hoosac* and *Oyaka* would arrive to await reduction.⁹⁴

By February 19, 1923, the dismantling operations were well underway, and by April 17 no fewer than 26 ships had been brought up to Alexandria. "Work of scrapping the government's 'wooden navy'" reported the *Alexandria Gazette*, "is now being pushed at the plant here at the rate of about two ships each week." The process became routine. The hulls were systematically stripped of metal, engines, boilers, and valuable superstructure materials, usable timbers, and other fixtures valued at over \$10,000 per ship. With the government netting little more than \$3,300 per vessel, the company's potential profits were estimated at over \$1,600,000.⁹⁵

At 8:00 a.m., April 18, a report was received by Captain E.G. Huefe, Fire Marshal at the United States Marine Barracks post fire department, Quantico, Virginia, that a number of ships were afire at the WM&SC fleet anchorage off Widewater. Huefe and six marines armed with axes and accompanied by a photographer from the First Aviation Group, secured a motor boat and proceeded to the site of the conflagration. The fire proved to be directly in the midst of the WM&SC anchorage where they discovered at least ten ships at anchor, three of which were burning furiously, and a fourth just catching fire. Huefe and his men boarded one of the burning ships, and discovered that the entire fleet had been left to the care of a pair of watchmen (one of which he later claimed was simply a fisherman). The ships had all been lashed together in a group by steel cables, and the two watchmen were desperately engaged in attempting to unlash one of the burning vessels to prevent the fire from spreading to the remainder of the fleet. Unable to cut the heavy cables that had bound the ships together, their feeble efforts would have been doomed to failure without the timely arrival of the marines.⁹⁶

Quickly Huefe, the coxswain of the motorboat, and another marine, all armed with axes, climbed aboard one of the

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burning ships and joined in the attack on the cables bonding the two center vessels together. After an hour's hard work, the cables were finally severed, just as the USS *Owl*, a former minesweeper that had been converted to a tug, arrived on the scene and successfully breasted the burning vessels away from the unburned ships. This feat having been accomplished, the Navy ship quickly passed fire hoses onboard Huefe's burning ship. The tug then proceeded to pump water into the ship from five of its own hoses, while playing additional streams of water upon two other burning vessels as well. Huefe would later report that the "prime factor in saving any of them was the arrival of the Navy tug."⁹⁷

At about 10:30 a.m., agents of the WM&SC from Alexandria arrived on the scene by land, escorted by a Major Manney, Chief of Staff at Quantico, and one Lieutenant Geotage. Geotage and the agents had soon transferred to a small motor launch commanded by a gunnery sergeant named Thruman and sailed in amidst the fleet. They discovered that four ships were now completely ablaze. Quickly the party joined Huefe in his fight aboard one of the ships. Then, about noon, the fire tug *Diligent* from Alexandria also arrived and began to render assistance in getting water on the burning vessel, albeit with considerable difficulty as several fire hose lines quickly burst when pressure was applied. Huefe later noted that "the only dependable stream they [*Diligent*] had was from the stand pipe on top of the pilot house."⁹⁸

Soon the battle was being observed from above as a Navy DH-4 seaplane circled to record the disaster on film. By midday, believing the fire to be checked and the situation well in hand, Huefe and his men departed for Quantico, leaving the two tugs to bring the remainder of the conflagration under control. Unfortunately, the fire was far from over. Aided by the government tug *Shenandoah*, which arrived on the scene after Huefe's departure, the fight continued until 4:00 a.m., April 19, when the blaze finally be totally subdued and drowned.⁹⁹

Reports by H.E. Whitaker, General Manager for the WM&SC at Alexandria, and Major E.W. Fales, U.S. Army Infantry Liaison Officer at Quantico, had soon reached the District Engineer's office in Washington, and they were anything but good. Five of the ten hulls at the Widewater anchorage, the ships *Okiya*, *Catawba*, *Aberdeen*, *Quidnic*, and *Gray Eagle*, had been burned to the water's edge, sunk, and finally come to rest partly heeled over on the bottom. The ship *Wasco* was scuttled in place to prevent destruction. Four more would follow, bringing the total to ten. Fortunately for the WM&SC, the ships had been sunk in the same general location in which they had been anchored before the fire, and none had floated into the main shipping channel. Indeed, although the vessels had sunk in the approximate middle of the river, they were still a half-mile away from the deepwater channel.¹⁰⁰

An investigation by the WM&SC revealed that the fire had been caused by the explosion of a kerosene cook stove which had been accidentally overturned by one of the watchmen while preparing his breakfast, and that the use of the fire extinguisher at hand had proved entirely "insufficient to check the flame."¹⁰¹

Despite it all, Whitaker found the event a mixed blessing by noting that, in any event, five of the hulls had been "saved by the splendid work of the government boats." But more important, no one had been injured.¹⁰²

Sometime between April 19 and April 28, yet another disaster befell the WM&SC when a heavy gale started one (or possibly several) of the burnt hulks near Brent's Point and set it adrift. Whitaker reported the problem to Tyler by telephone and then set off to obtain a tug to return the hulk, or hulks, to the anchorage area and re-moor them securely. Tyler was deeply concerned over the recent events and informed the company "that unless immediate steps are taken to remedy the condition, I will recommend that legal action be taken" against WM&SC. The threat was serious because without a War Department permit, the right to the anchorage, which had only been approved on a *pro tem* basis, could be removed at any time until the department finally issued a standing permit.¹⁰³

Nevertheless, on May 24, 1923 Major General Lansing H. Beach, Chief of Engineers, U.S. Army, recommended to the Secretary of War that WM&SC's application for anchoring at least another 200 ships at Widewater be accepted. He suggested that the privilege be supported by stringent regulations to insure that no menace to navigation on the Potomac be produced, or that the United States be exposed to any expense. He further recommended that the rules and regulations be adopted under the articles of Section 7 of the Rivers and Harbors Act of March 4, 1915, and submitted a review draft of the proposed regulations to the Office of the Secretary of War.¹⁰⁴

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The War Department acted promptly. Rules and regulations "solely applicable to this [Widewater] anchorage" were developed. Principal among these were: (1) all ships being brought into the Potomac were to be anchored together in groups of five; (2) all ships were to be provided with fire protection equipment; (3) a watchman was to be assigned to every unit of five vessels brought into the anchorage; (4) a tugboat was to be permanently assigned by WM&SC to the anchorage at all times; and (5) all expenses incurred in the dismantling, and board and lodging of government inspectors assigned to monitor company activities in the anchorage ground and the Alexandria dismantling operation be paid by the company. The logistical and management concerns were well founded for by mid-June 1923 it was predicted that a total of 215 vessels would soon be anchored off Widewater, a figure that would eventually be topped off in several months at 218 ships.¹⁰⁵ By this time, however, it had become apparent that few if any of the hulls could be readily disposed of by sale for reconditioning as barge hulls. The hulls, it was determined would have to be disposed of by other means. Reduction by fire seemed the most direct manner of disposal.

On June 8 the Chief of Engineers sent a draft of newly developed rules and regulations to WM&SC for comment. The company quickly complained that the new restrictions were "so burdensome that it would be ruinous to the company if it were forced throughout the entire period of operation to comply." Appeals for more lenient regulations were quickly dispatched to the Assistant Secretary of War and to influential members of the U.S. Congress, over the head of the Chief of Engineers, by the well-connected company executives.¹⁰⁶

On June 19, H.E. Whitaker submitted to the District Office of Engineers a modified plan for the anchoring of the fleet. He proposed placing the ships in single units with a minimum of 100 feet spacing between each, rather than in multiples of five lashed together, with the bow of each facing upstream "and properly anchored with a single bower anchor" in shallow water. The seacocks on each ship would then be opened to permit just enough water through the hull to sink the vessel and firmly hold it on the bottom to prevent movement by wind and tide. In so doing, he suggested, practically all obstruction to navigation would be removed as the ships would be out of the channel area and close to shore. Should a fire occur onboard any vessel, only that portion above the waterline would be burned and would not materially influence the cost of pumping it out and removing it from the anchorage ground to some predetermined burning park nearby for final disposal. Thus, the requirement for watchmen, fire equipment, and an ever-present tug would be removed. Indeed, the cost of reclaiming a burned hull in this manner "would be very materially less" than that of a ship "as usually anchored so that the bond called for could be reduced to a small fraction of that required." Undoubtedly aware of the lobbying efforts of WM&SC at the highest levels of government, Whitaker also accompanied his plan with a polite request that the Office of Engineers issue a new set of rules and regulations, presumably to be modeled after his own suggestions.¹⁰⁷

On July 26, 1923 the government established, along with new rules and regulation, new metes and bounds for the Widewater Anchorage Grounds:

THE ANCHORAGE GROUNDS (All azimuths refer to the true meridian)

Under authority of the provisions of Section 7 of the River and Harbor Act approved March 4, 1915. .. the following anchorage ground for vessels in the Potomac River off Widewater; Virginia, is hereby defined and established, and the following rules and regulations relating thereto are adopted.

The area is a rectangle measuring 4,670 yards along its north and south or up and down stream sides which have bearings of 1740 measures 1,000 yards across its ends which have bearings 840. All four corners are marked by white spar anchorage buoys. The north-eastern corner of the area marked "A" on the map herewith is a point where Liverpool Point Wharf bears 67° and is 2,500 yards distant and where Smith Point Light bears 148°. The northeastern corner of the area marked "B" on the map is a point where Smith Point Light bears 840 and is 2,300 yards distant and where Liverpool Wharf bears 18°.

THE RULES AND REGULATIONS

1. The District Engineer of the Engineer Department at Large, in charge of the locality, is hereby authorized to issue

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permits to anchor vessels which are not in condition to be navigated under their own power, in the anchorage area hereby defined and established, in accordance with these regulations and such additional conditions, to be specified in the permit, as in his opinion the maritime and commercial interests of the United States may require; and such vessels may be anchored in said anchorage area only in accordance with such a permit previously obtained. Such permits will not be granted until the applicant has furnished satisfactory surety bond or bonds in the amount of \$35,000 for each five vessels or less, guaranteeing compliance with these rules and regulations and the conditions of the permit; the disposition of the vessels to the satisfaction of the said District Engineer so that it will not become a menace to navigation; and the reimbursement of all expenses which may have to be incurred by the United States in connections with the removal and disposition of the vessels. Each such bond shall be available for the removal of any and all of the vessels covered thereby and shall specifically identify the vessel or vessels by name. The substitution of new vessels for those which may be removed from time to time shall only be done upon prior approval of the District Engineer and with the written consent of the surety. These permits will be valid only for such period not exceeding three years as the said District Engineer may specify therein, and may be revoked at any time.

- 2. The vessels which are not in condition to be navigated under their own power shall be placed in the anchorage area singly in the upstream and downstream position with the bow pointing upstream and anchored by one anchor of not less than 4,000 pounds weight with 1718" stud link chain controlled from the bow end of the vessel by a windlass in good working order. Sea cocks and such other openings through the hull of each vessel shall be provided as the said District Engineer may require and shall be equipped and set as he may direct. When the vessel is properly anchored the said sea cocks and openings shall be opened and the hull allowed to fill until it rests firmly upon the river bottom. The said sea cocks and openings shall then remain open for the free ebb and flow of the tide until the vessel is finally removed from the anchorage ground.*
- 3. At least one vessel at the upstream end and one vessel at the downstream end of the anchorage ground, shall be equipped with adequate fog signals, and have a man on watch at all times for the purpose of tending signals, lights, patrolling the sunken vessels and keeping off unauthorized persons.*
- 4. All vessels shall be placed in the anchorage ground with a view to maintaining an orderly and uniform arrangement, working out from some central point. Open lanes not less than 70 yards should be left around each vessel.*
- 5. All vessels shall bear the expense of any inspections or other operations by the United States which the said District Engineer may deem necessary to insure compliance with these regulations and the terms of the permit, including the salaries and board and lodging of an inspector or inspectors required at the anchorage ground and at the plant of any party preparing dismantled vessels for anchorage in said anchorage ground and shall whenever directed by the said District Engineer deposit with him such sum or sums of money as he may require as necessary to meet these expenses.*
- 6. Nothing in these rules and regulations, nor in the permit to be issued by the District Engineer, shall be construed as relieving the owner or person in charge of any vessel from the penalties of the law for obstructing navigation or for constructing or interfering with range lights, or for not complying with the navigation laws in regards to lights, fog signals, or for otherwise violating law.¹⁰⁸*

On August 22, WM&SC submitted an application for a permit to anchor the first 60 in the designated anchorage area.

In September, it was decided that a test be conducted on one of the five vessels that had been burned and sunk in April (although years later, it was reported that the number had been seven). The ships were to be raised and hauled close to shore, burned again, stripped of all loose metal (primarily fittings and bracings), then hauled upon the nearby beach and burned once again. The scheme was submitted to the District Engineer for approval, and on September 6 a permit was issued for the experiment to proceed.

On September 21, the first disposal test was carried out. The sacrificial vessel, the *Aberdeen*, was raised, placed with its bow about 100 feet from the edge of Brent's Marsh in five to six feet of water, with its stern sticking out

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channelward approximately 200 feet and in eight feet of water. Once the burning was completed, a derrick boat commenced removing an estimated 200 tons of scrap metal consisting of strapping, bolts, and the like. With this weight removed, the vessel was pulled further up on the beach and again set afire for the last time. "If deemed necessary," the Army engineer who reported on the test later wrote, "the beached hull will be filled with dredge or other material to securely anchor the hull and prevent its getting back into deep water." It was later reported, however, that the second fire had been absolutely effective and that the hull had been "completely disposed of."¹⁰⁹

The test was deemed a complete success, and it had been completed none too soon. By mid-October it was being reported that a total of 218 vessels were ready, or would soon be ready, to anchor at Widewater. On October 3, based upon the successful destruction of *Aberdeen*, a second permit was granted to the company to dispose of an additional ten hulls (which included those burned in the April fire) along Brent's Marsh "to fully ascertain the problems in the burning and beaching" process on a large scale, preparatory to contemplated mass disposal operations. It was anticipated that the hulls would be placed side by side no more than fifty feet apart, as close to the beach as possible, burned, and hauled upon the beach as far ashore as possible. After the second burning they would be filled with dredge spoil or other materials at the discretion of the District Engineer.¹¹⁰

A week later the second hull, that of the *Gray Eagle*, was raised, burned, beached, and burned again. The destruction of the third hull, the *Blythedale*, proved less than successful. The ship sank while afloat and afire, and the tests were temporarily called off.¹¹¹ But now, even more significant problems were threatening. Although the company had taken precautions to address the possibility of protests by local inhabitants, little note had been made regarding those who earned their livelihoods by working the waters at Widewater, and the bounty of the Potomac for their incomes. On October 5, 1923, Secretary of Commerce Herbert Hoover received a letter dated September 29, 1923, from Fredericksburg attorney Alvin T. Embrey. Embrey had been employed by a body of concerned Potomac River fishermen to represent them and to officially protest the activities of the WM&SC which, they claimed, were impacting their abilities to conduct their work. Duplicates of the letter had also been sent to the Secretary of the Interior, and the Secretary of the Navy. McDonald Lee, Virginia Commissioner of Fisheries, was also contacted and requested to intervene on behalf of the fishermen. The letters to the various cabinet members and officials were succinct and to the point: Dear Mr. Secretary:

On behalf of numerous fishermen along the Potomac River; on both the Maryland and Virginia shores . . . I desire to file a protest against the practice of some salvage company which has purchased a number of wooden hull boats from the Government and make their anchorage in about sixteen feet of water in the Potomac River between Quantico and Arkendale, that is the point opposite the United States Marine Post and the mouth of Aquia creek.

It seems that this salvage company takes these boats to Alexandria for dismantling the machinery and then returns the hulls to this anchoring ground and then sets them afire. This 'flat' on which these boats are anchored is the best fishing ground for gill nets for shad and herring on the Potomac River between its mouth and Washington.

When these boats are burned large portions of the hull, with nails and bolts in them, fall off and as soon as they strike the water the fire is put out and they sink. The hulls burn to the water's edge and sink, and . . . their propellers and ribs inside are often on them and these sink. This has a double effect; first the wreckage catches the nets and cause them to be cut to pieces; second - the charred wood, being otherwise clean water on the fishing ground, has a tendency to drive away the fish.

*In addition to this, the presence of these hulls on this flat is a menace to navigation endangering the sailing vessels that cross these flats coming from the mouth of Aquia Creek and going up to Stone Landing and Coal Landing. Other complaints and demands for removal of the fleet and stoppage of the burning followed.*¹¹²

On December 5, 1923 a modification of the rules and regulations was submitted by District Engineer O'Connor specifically "to better serve the fishing industry."¹¹³ By WM&SC continued, albeit slowly, to burn hulls down off Widewater. On July 3, 1925 the ships *Colona*, *Saris*, and *Wonatabe* were released, meaning that they had been burned

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down. Then, on July 24, after more than a year's delay, the company was finally granted a permit by the War Department to move the hulls by lot across the Potomac at the end of the company's three year anchorage permit at Widewater, and "to ground, burn and beach in Mallow's Bay, Potomac River, about two hundred hulls." The provisions for the permit were significant in that a new methodology had been specified to protect the river from the recurrent problems of hulls periodically floating away and creating navigational hazards. Noted in paragraph 18 of the permit, it was stated:

*When all hulls which it is intended to permanently ground in Mallows Bay have been placed in the grounding area [in the bay], the hulls on the riverside shall be filled with dredge material and a bank of dredged material thrown up against their riverward sides and in the gaps between the hulls.*¹¹⁴

The permit for anchorage at Widewater, which would expire on December 31, 1928, was equally significant in that it was the first time that the name Mallows, instead of Marlow's, was employed to define the geographic area of the bay. As the completion of salvage operation at Alexandria had long since passed, disputes erupted between the government and WM&SC over the company's financial capabilities and bond moneys required to insure the final disposal of many scores of ship hulls at Widewater. Prompted by government action and potential fines, on November 7, 1925 WM&SC workers bound together a total of 31 ships with a great steel cable, and prepared for the greatest ship conflagration to that date in American history. Oil soaked waste was spread around the decks of the line of ships in Mallows Bay to insure that the fire would take hold. At 5 a.m., just before sunup, with federal representatives, inspectors, salvors, and the press hovering about in a squadron of tugs and motorboats, and a lone plane circling overhead, the coup de grace was administered. On a given signal, ten men raced about the flotilla touching lit torches to the oil soaked materials. "As the torch was applied," noted one observer from the *Washington Post*, "a horde of squealing rats plunged into the water." From upriver at the Quantico Marine Barracks, which had not been forewarned of the event, the flames appeared "like the red ball of the sun rising in the east." The U.S. Marines were alarmed, and believing that a disaster was underway down the river, instantly turned out to fight the fire, only to be turned back after discovering the actual nature of the conflagration.¹¹⁵

The utilization of Mallows Bay as both an anchorage and burning ground was not without impact upon the local fishing industry. Although documentary evidence is slight, it would appear that some correlation between the demise of the Monroe sturgeon fishing operations and caviar processing plant at Liverpool Point in 1926, the final beaching of the remaining vessels of the Monroe sturgeon fishing fleet, *Black Bottom*, *W.S. Child*, and *Edythe*, and the sudden occupation of the entire reach of Mallows Bay by the wooden Emergency Fleet hulls was probably not coincidental.¹¹⁶

Despite the enormous success of the November conflagration, progress at Widewater was slow as was the removal of hulls into Mallows Bay. On July 13, 1926, four more vessels, *Afrania*, *Bushong*, *Bushrod*, and *Dertona*, were released from bond. Indeed, progress at reducing the hull population appeared to have been so slow that it would not be until the summer of 1927 that bonds for replacements were warranted. On June 23, 1927 a bond was produced for anchoring the ship *Quemahoning* at the Widewater anchorage, and a permit issued on July 11. On August 2 a bond was produced for the *Calala*, *Amoron*, and *Balliett*, for which a permit was authorized on August 13. On August 6, *Bon Secour*, *Cabura*, and *Horado* were released.¹¹⁷

Company efforts accelerated in 1928. On March 17, the ships *Ahala*, *Angelina*, *Arado*, *Brompton*, *Forster*, *Fort Sill*, *Kokomo*, *Latoka*, and *Moosabee* were released. On June 15 fifteen more vessels followed: *Aiken*, *Bell Brook*, *Bobring*, *Boilston*, *Braeburn*, *Bromela*, *Cheron*, *Coconino*, *Flavel*, *Grayling*, *Itanca*, *Laforge*, *Musketo*, *Neolah*, and the venerable *North Bend*. On October 12, twenty-eight vessels were released: *Aculdo*, *Adway*, *Alabat*, *Alpaco*, *Aspenhill*, *Bancroft*, *Bayou Teche*, *Blue Eagle*, *Bologan*, *Bonifay*, *Clodia*, *Conewago*, *Coulter*, *Datis*, *Dungeness*, *Fort Riley*, *Fort Stevens*, *Kanakee*, *Katonah*, *Kimta*, *Moraine*, *Munra*, *Panga*, *Quinault*, *Wayuoan*, and *Wenakee*. Four days before Christmas, on December 21, an additional eleven ships were released: *Abbeville*, *Ardenia*, *Astoria*, *Barrington*, *Boone*, *Boxley*, *Capine*, *Fernandian*, *Mahnet*, *Owatama*, and *Toka*.¹¹⁸

Releases would continue into 1929. On April 27, another eighteen vessels would be released after burning and their charred hulls hauled into Mallows Bay, like all those that had gone before. These were: *Alcis*, *Andra*, *Arundel*, *Baladan*,

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*Banica, Battahatchee, Bockonoff, Dalgada, Darrah, Eyota, Hoosac, Kickapoo, Marshfield, Tuwetanka, Wakan, Wihaha, and Woyaca.*¹¹⁹

On August 1, 1929 a written permit was issued by the District Engineer for WM&SC to anchor 25 more vessels at the Widewater Anchorage Grounds, in addition to those covered by other bonds, or to replace those which had been removed. On August 9 the company fielded sureties in the penal sum of \$175,000 covering the 25 ships. These vessels were: *Makanda, Catawba, Bloomington, Wasco, Chibiabos, Quidnic, Okiya, Blythedale, Nemassa, Bulana, Sewickley, Barabos, Alapaha, Fonduco, Anthera, Baxley, Esopus, Casmalia, Buhisan, Yawah, Deva, Mahaska, Waneyanda, Nashotah, and Falmouth.* (Of these, it might be recalled, *Wasco, Okiya, Catawba, and Quidnic,* were already among those scuttled or burned to the water's edge in the fire of April 18, 1923 and still lay on the bottom).¹²⁰

By mid-summer 1930, at least four of the above mentioned vessels, *Chibiabos, Bloomington, Mahasaka, and Deva* had been removed from the anchorage grounds at Widewater, hauled to the Maryland shore, burned, and then totally destroyed. In accordance with the conditions of the bond, (namely that the principal, WM&SC, would, from time to time, remove certain vessels from the anchorage and substitute new vessels for those removed, under the conditions of the August 1, 1929 permit which served to cover such removals and substitutions once notification had been submitted in writing), the company sought to replace them with *Quemahoning, Calala, Balliett, and Amoron.*¹²¹

On August 11, 1929 the Army Engineers conducted a comprehensive survey and mapping of the Mallows Bay anchorage, from Sandy Point to Liverpool Point, identifying 152 Emergency Fleet vessels by name and a corresponding identity number, their positions, dates of release, landmark features, property boundaries, netting lines, grounding areas, U.S.C. & G. Monument Site, light and range stations, geological features, soundings, and even two non-related schooner wreck sites.¹²²

On July 23, 1930, Fleishhacker and Tyson formally notified the District Engineer of the replacements. (*Bloomington* was officially released on January 7, 1930, "as it has been pulled to a position as required by the permit.") By August 1930 the *Bonnafon* and *Bellota*, which had been, along with *Wahkiakum, Acrema, and Asotin*, filed under bond covered by sureties on November 27, 1929, were released and replaced by the *Alta* and *Caloch*, a move which was approved on September 4, 1930.¹²³

By August 28, 1930, the *Bagosa*, which had been moved from the anchorage grounds along with *Oraton, Dancey, and Guilford* under permit issued October 23, 1929, was removed. She was replaced by *Yakima*, a move approved on September 19, 1930. At the same time, a request was made that *Waneyanda*, which had been released by this time, be replaced by *Congaree*, a vessel previously named in a permit dated September 3, 1927 and bonded September 17, 1927. Approval was granted on September 19, 1930.¹²⁴

On September 15, 1930, WM&SC requested that two vessels, *Cresap* and *Kangi*, be added to eight vessels, *Bedminster, Berea, Aowa, Alanthus* (which had been damaged during the fire at Alexandria in October 1922), *Kasota, Swampscott, Mono, and Alfalkey*, for which a penal sum amounting to \$70,000 had been posted under a bond dated April 19, 1930. The two vessels had been previously named in a permit dated September 3, 1927 and bond dated September 17, 1927. Consent was given on October 4, 1930.¹²⁵

Another permit was granted to WM&SC by the War Department on January 3, 1931 wherein it was recited that application had been made "for authority to extend the area in Mallow's Bay, Potomac River, now used for grounding, burning and beaching wooden hulls, two hundred (200) feet channelward." The permit further stated "that if the structures or work herein authorized is not completed on or before [date not filled in] day of December 31, 1931, this permit, if not previously or specifically extended, shall cease and be null and void." Yet, company operations, now notably hindered by the decline in the market price of scrap metal and the general economic malaise triggered by the onset of the Great Depression, were diminishing in production. By March 1931, "when to all appearances," the company finally "abandoned the project, leaving a watchman in charge of the personal property at Sandy Point farm and to keep anybody from removing any of the equipment on the beach," where it would remain until August 1932.¹²⁶

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The company's operations, declared WM&SC executives, had been completed. A total of 169 ships had been brought into Mallows Bay to end their days, and the company declared its mission at an end, although, the job was actually far from finished. "All of the hulls," reported Humphrey in June 1931, "have been burned and beached within the allotted area of Mallows Bay described in the permits issued by the District Engineer covering the burning and beaching of the hulls." The District Engineer did not agree with WM&SC's declaration that they had met all of the criteria necessary for the release of all bonds and thus refused to release them.¹²⁷

As in the past, the company appealed to higher authority. Although he was no longer officially an officer of WM&SC, William F. Humphrey attempted to use his connections at the highest levels of the U.S. Army in behalf of the company. On June 17, 1931, he met in Washington with Major General Douglas MacArthur, Commander of the United States Army, and briefly informed him that "the District Engineer refuses to recommend the release of the bonds filed by the company" until WM&SC raised and moved the four sunken hulls accidentally lost in April 1923, and, in accordance with the permit issued on July 24, 1925, built a levee "around the hulls grounded in the area set apart for that purpose [in Mallows Bay]" to prevent them from foatig free and posing hazards to navigation. The company stockholders, of course, requested relief since hundreds of thousands of dollars had been tied up in the bonds. After briefly sketching the story of WM&SC's salvage operations on the wooden fleet, and the difficult position the District Engineer's demands had put the company in, Humphrey departed for Chicago with a promise to brief the general more thoroughly by letter.¹²⁸

As a consequence of the communications between Humphrey and MacArthur, a special field investigation of Mallows Bay and the Widewater Anchorage Grounds was conducted by the Office of Engineers, which confirmed the District Engineer's view that four vessels sunk at Widewater constituted "a dangerous hazard to navigation, the continuance of which cannot be permitted." In a letter to Humphrey, dated July 1, 1931, Major General Lytle Brown, Chief of Engineers, informed the attorney that while the four wrecks were not near the deep water channel, "they are in the open river area of ample depth for most of the vessels navigating the river, and may, at any time, lead to a marine disaster with loss of life."¹²⁹ As for the issue of the levee, the general was willing to bend, or at least relinquish judgment to a higher authority.

*While the vessels grounded in Mallows Bay constitute a decidedly objectionable local condition, it may be questionable that the interests of local navigation make it essential that these wrecks be enclosed within a levee, and I suggest that you make formal application to the Secretary of War for relief from the requirement of this condition of your permit.*¹³⁰

Humphrey proposed that the War Department remove the hulls and that WM&SC contribute \$10,000 to the expenses.¹³¹ Yet, owing to increased expenses, plummeting profit, and the onset of the Great Depression the company had already abandoned work on the hulks. At Mallows Bay the company had ceased all work by June, although the permit would not expire until December. Yet, in the vacuum created by WM&SC's cessation of activity, the wrecks now quickly became the target for scores of local entrepreneurs, mostly unemployed men who began to pick over the beached hulks for whatever scrap metal they could remove and sell. Their endeavors were soon being conducted on a remarkably large scale. In July, when a party of Sea Scouts, on a cruise of the Potomac, entered the bay, the scout leader, Fred Tilp, recorded in his journal:

*About 20 boats here are loading scrap iron being removed from the burned wooden ships ashore. Thousands of snowy white egrets nest in these old hulks. In a small bight on the south shore we find a bugeye being painted for use as a scrap-metal carrier to Washington.*¹³²

By December 31, 1931, when the permit for work in the bay expired, it was not renewed. On January 2, 1932 WM&SC was officially notified "that this part of the stipulated work [the levee construction] was not considered necessary for the protection of navigation and they were relieved of the requirements of paragraph 18 of the permit." Moreover, the issue of the company's responsibility for the removal of four ships sunk at Widewater was now conveniently overlooked. On January 20, 1932, the Office of Engineers, U.S. Army, filed its final report stating that "all work required under the permit as granted and modified" had been completed.¹³³

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On November 20, 1932 WM&SC conveyed by deed of sale the Sandy Point Farm tract to the Potomac Realty Company, Limited, a San Francisco based corporation (whose offices and officers were the same as WM&SC), leaving the latter the job of removing the company machinery and equipment left behind at Sandy Point Farm, most of which was eventually sold to the Boston Iron and Metals Company.¹³⁴ In December 1932 WM&SC was officially dissolved.

Almost as soon as WM&SC ceased operations at Mallows Bay, later court testimony revealed, "the public and the residents in the neighborhood began the removal of metal from the burned and sunken hulls without interference [even] while the watchman was there." Indeed, it was then,

*when, to all appearances, the wrecking business of the Western [Marine and Salvage] Company was at an end, that the people living in the neighborhood took this view they there saw and began to gather the junk remaining in the burned, submerged hulks, and sold it to junk dealers in and around Washington.*¹³⁵

Some would later claim that when WM&SC abandoned operations, "they told the residents that any material left on these abandoned hulks could be salvaged if they so desired." Soon, between 50 and 75 residents of Charles County had become actively engaged in picking over the hulks for marketable scrap metal. Local salvors, such as Preston Dent, who owned a barge, began to work the wrecks even though the price of scrap was now so low that "it was barely worth getting." For Dent, who made at least two documented trips to Washington with barge loads of seventy to eight-five tons of scrap each, which he sold for \$6 a ton, the profit, considering the labor involved, was marginal. But for many others, unemployed as a result of the depression, the scrap provided at least a subsistence income.¹³⁶

Within a short time an unorganized system evolved at Mallows Bay involving labor, middlemen, haulers, and sellers. Lorenzo D. Crouse was one typical entrepreneur. By September 1932 Crouse, who had worked for WM&SC the previous year, began his own salvage operation removing lead, brass, copper, and scrap iron. Like most, he recovered and sold small lots of scrap, usually marketing the material to a middle-man named Sinclair, in parcels of 30 tons each. Sinclair, who bought scrap from scores of salvors like Crouse, in turn sold the combined lots to one Harry Steinbraker. Although some individuals sold directly to Steinbraker, it appears that this system was not unlike that employed in the fisheries and oystering industry.¹³⁷

In mid-1934, with increased Japanese interests in American scrap metal beginning to drive prices up again, scrap salvors and dealers at Mallows Bay began to contend for control over the wrecks. One of the first to observe the market conditions and the possibilities for increased profit from the burned, gutted, and submerged hulls lying in Mallows Bay was Steinbraker. Yet, he was not alone in his assessments. In early July 1934, one Irwin Bowie, a resident of the nearby town of Ironsides, in Charles County, sought the assistance of a La Plata, Maryland attorney named J. Read Bailey to determine whether the wrecks "at Sandy Point, in the Western Section of this County, are still the property of the Navy or War department." Bowie noted that some parties unknown had acquired the property adjacent to the abandoned hulks and had refused to give permission for anyone to board them. Undoubtedly one of the many small salvors who had been working the wrecks, Bowie was determined to find out if the hulks still belonged to the government or some private individual or concern. Bailey, in turn, queried Congressman Stephen W. Gambrill for assistance in resolving the question. Gambrill turned the query over to the Office of Engineers.¹³⁸

On July 16, 1934, Acting Chief of Engineers, Brigadier General G. B. Pillsbury, replied to Gambrill's query with a brief resume of the work of WM&SC based upon the War Department's files. "Completion of the work under the permit was reported on May 23, 1932. The War Department has no interest in the boats in question and their present ownership is not known to this office." The attention that the general gave to the query was, perhaps, indicative of his interest in providing an answer. If the former owner had relinquished its rights to the property, Pillsbury suggested, Bowie should contact the Attorney General of Virginia "regarding the ownership of such abandoned property under the laws of that state." That the hulks lay in the Potomac River, within yards of the Maryland shoreline, and were clearly in Maryland waters seems to have passed right over his head.¹³⁹

Maneuvering for control over the wrecks, however, intensified. As the price of scrap continued to climb, Steinbraker

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was the first to move aggressively. Tracing the current owners of Sandy Point Farm through land transfer records in La Plata Court House, he "called the Potomac Realty Company on the West Coast on telephone" to secure salvage rights to the wrecks. The call resulted in the stockholders of the WM&SC, by agreement dated December 1, 1934, assigning, releasing, and quitclaiming unto the Potomac Realty Company, Limited (mainly themselves), all the "right, title or interest which they or any of them may have in and to all lead, copper, brass and/or other metals of whatsoever kind and nature located in or around each of the 169 vessels or hulls ...situated in Mallow's Bay, near Sandy Point, Maryland." By agreement made on December 3, 1934, nearly two years after the transfer of the Sandy Point tract to the Potomac Realty Company, Limited by deed of assignment to Steinbraker, recorded in Charles County, the company transferred *all the right, title, and interest of the said the Potomac Realty Company, Ltd., in and to all lead, copper; brass and other metal of whatever nature owned by it, or to which it has title in and around the hundred and sixty-nine (169) vessels, which said vessels were formerly owned by the Western Marine & Salvage Company, the said vessels being located in Mallow's Bay, near Sandy Point, in Charles County.*¹⁴⁰

The same metals were assigned "as is, where is, if is, without any warranty of title whatsoever or otherwise." The price to be paid was two dollars per ton f.o.b. railroad cars, with a deposit of \$500 to be applied on the last payments due the purchaser. A bond of \$10,000 was guaranteed non-interference with navigation.¹⁴¹

Steinbraker moved quickly to secure his holdings, and soon "a large number of workers" were "steadily engaged" in removing metals from the hulls. To recover large quantities of metal from this remote setting required a considerable manpower base, which was to be readily had in the depressed economy of Southern Maryland, as well as adequate support and living space for the workers. In June 1934 a derelict four-masted schooner, the *Ida S. Dow*, was permanently moored on the southwest edge of the basin to serve as a dormitory for workers and "for officials of the salvage firm," presumably those employed by Steinbraker. (According to a popular story published by historian Fred Tilp, the ship would later serve as a temporary residence for prostitutes who provided their services to salvagers. Tilp noted that the vices of salvors were indeed well served during the Prohibition era when no less than 26 whiskey stills were reported aboard the hulks in the bay. In fact, he reported, as late as 1976, Treasury agents raided a whiskey still on one abandoned steamer in the bay.) The author of this report, however, has found no evidence to substantiate such claims).¹⁴²

The *Ida S. Dow* possessed a short and tragic career. Built in 1918 at Thomaston, Maine by the Atlantic Coast Company, the merchant schooner, at 225 feet in length, and 1,411 tons, was one of the last four-masters to be constructed. On November 30, 1931, she had been severely damaged in a collision with the German steamship *Hermen Frasch*, and had to be towed stern first into Hampton Roads, Virginia. The big schooner was thereafter hulked at Newport News and drawn up to await the wreckers. In the spring of 1934, however, she was granted a new lease on life when she was acquired by salvors, presumably Steinbraker, towed up the Chesapeake, and anchored in Mallows Bay.¹⁴³

Steinbraker's legal efforts notwithstanding, the Mallows Bay hulks continued to be the subject of salvage by numerous county residents acting in their own behalf, all of who conducted their work openly and without permission from him. Steinbraker moved to halt the depredations of what he now construed to be his property. On December 22, 1934, he filed a bill of complaint against one of the salvors, Lorenzo D. Crouse, in the Circuit Court of Charles County, Maryland, charging that Crouse, "his agents, servants and employees, disregarding the interests of "the plaintiff" in and to the lead, copper, brass and other materials contained in said vessels . . . have entered upon and seized said vessels and are at present engaged in shipping and selling such metals to parties unknown" to the plaintiff. As a result of "such depredations" the "value and interest" of Steinbraker's "holding in said vessels and metal is being permanently injured." The bill prayed for an injunction and an order was passed to that effect. Then the case was appealed and again heard in court. The court was quick to observe that although Crouse was the only person named as a defendant, "this suit is really directed against numerous residents of Charles County, variously estimated by witnesses at from fifty to seventy-five, who had been engaged in the same business, on the same wreckage, as the defendant."¹⁴⁴ After citing several precedents regarding abandonments, lost and found properties the court further observed:

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*These wrecked hulls were not located on the property of the Western Marine and Salvage Company; they were in navigable waters, occupied by permission of the War Department, which expressly stated that the permit was subject to any other rights of the State or its citizens, public or personal. The vessels were located on land belonging to the State, to which the Federal Government disclaimed any intention of asserting title. The interest of that Government extends only to control of the water over the land, not to the soil.*¹⁴⁵

In the end, on January 15, 1936 the court ruled that the Mallows Bay wrecks were open to salvage by anyone.¹⁴⁶

Now, as the local salvage operations on the hulls in Mallows Bay continued unabated, large numbers of unemployed workers descended upon the little embayment in an effort to strip out a living. Domestic living facilities, however, were Spartan. By September 1, 1936, the *Ida S. Dow* had become unsuitable for service as a dormitory ship (or perhaps was being denied to the scores of independent salvors by Steinbraker), but was incapable of being towed away. She was therefore hauled several hundred yards to the southern line of the hull containment area, filled with mud, left to sink in place, and abandoned. According to Tilp, the legion of wreckers, who were now working on the hulks or beach combing the shoreline for scrap, began taking up residence in five "Potomac Arks," inexpensive houseboats, easily constructed, and occasionally mounted on pilings, which provided convenient and cheap lodging.¹⁴⁷

Salvors fortunate enough to have vessels began to work upon the more easily accessible hulks, principally those located along the outer line of wrecks nearest the edge of the Potomac channel. Occasionally, dynamite was employed to help break up ships to loosen banding straps, drift pins and bolts. The work on the outer line was carried out owing to easy access as most of the wrecks were tightly clustered together and defied approach by watercraft (and still do). Concentration on the removal of metal from these wrecks soon began to produce a most unexpected byproduct. As the metal was removed, the ships became lighter, more buoyant, and inclined to float. Yet, as late as October 4, 1935, when the Army Engineers conducted one of their periodic inspections, all had appeared in order in Mallows Bay. On the Virginia shore it was another matter.¹⁴⁸

On several occasions, the hulls beached at Brent's Marsh had been reported to be moving. "Two or three times," reported Major W.D. Luplow, the District Engineer, "they have been found to have drifted various distances up to several miles out into the ship channel." But the moves were usually addressed right away. On February 8, 1937, one hull drifted from Brent's Marsh and was found fifteen miles downstream in the ship channel. It was, fortunately, recovered before causing any damage to navigation and returned to its former resting place. Then, on April 26, during an abnormally high tide, two vessels moved out of Mallows Bay. One of the ships was quickly relocated by the District Engineer near Maryland Point. The other had been blown ashore in the mouth of Chopawamsic Creek. The vessel in the channel near Maryland Point was dragged to shoal water on the Virginia shore near old Chatterton's Landing and temporarily secured. The hull at Chopawamsic, however, had grounded itself so firmly that it could not be moved "with ordinary methods."¹⁴⁹

In an effort to rectify the situation, Major Luplow submitted to the Chief of Engineers, on May 8, 1937, a request for allotment and authority to dredge at Mallows Bay and to use the spoil to erect a dike such as called for in the permit issued to WM&SC in 1925. The dike would be erected over each of the riverward hulls in the bay, thereby anchoring them and adequately confining the interior vessels. Some seven isolated hulls along the Virginia shoreline should, he recommended, also be filled with dredge material in order to prevent further movement from that quarter. He estimated that to return the hulls at Chopawamsic and Chatterton's Landing to their former positions in Mallows Bay and to construct levees by depositing dredge spoil over the wrecks would cost \$9,500. "It is considered, in view of the work," he wrote, "that this can be done most expeditiously and economically with Government plant and hired labor."¹⁵⁰

Another inspection was called for. On May 19 Inspector G.D. Rittenhouse personally investigated the condition of the hulls beached in Mallows Bay, at Brent's Marsh, and off the Quantico Flying School in Chopawamsic Creek. The inspector readily observed that all of the hulls on the outside line at Mallows Bay had been "fairly well cleaned of scrap iron and are much lighter than at the inspection of October 4, 1935." Two of the hulls had moved from the area and several others had shifted their positions in the bay.¹⁵¹

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In Mallows Bay it was noted, the situation was becoming serious. Hull No. 117 (*Yakima*) had moved about thirty feet channelward. An unnumbered hull lying between hulls No. 34 (*Casmalia*) and No. 157 (another post-August 29, 1929 addition) had moved out of position and was discovered lying on a north-south axis, but had been made fast to another unidentified hull upstream of No. 157 by a 3/4-inch cable. Yet salvage was continuing on many of the hulls despite the hazards. Indeed, during his visit the inspector had observed from fifteen to thirty men gathering iron which, for the most part, was being sold to one A.M. Scott, a buyer for a dealer named Jake Levin of 1310 11th Street, S.E., Washington, D.C. Part of it, however, was being bought directly by one G.H. Morgan, "who lives on the Wilson property near Mallows."¹⁵²

During his inspection, it was noted that the salvors were using dynamite and that several charges had been set off on hull No. 125 (*Congaree*), which lay in the second line of ships in the bay. Observing the lightened condition of the outer line, the inspector had asked "to keep the men from salvaging from the outside line of hulls" and "intimated that if this was not done all salvaging in the area would be discontinued by this office."

"The conditions at Mallows Bay," the inspector wrote in his final report of findings, *are considered dangerous and a distinct menace to navigation on the Potomac River The main ship channel at this point is approximately 1,000 feet from the hulls and in the event of high water and high tides, such as experienced the latter part of April, very little time would be consumed by a hull floating out of the Bay into the channel. Recent observation proves that the hulls now have the necessary buoyancy to break loose on high water and it is possible that this contingency should be remedied as soon as possible. I believe the most permanent and least costly method of securing the hulls is to put several hundred yards of mud in each of the outside hulls, about 35 in number This would cover the remaining scrap iron and effectively stop salvage in these hulls.*¹⁵³

Even as the engineers reviewed the serious nature of the threat to navigation by the wrecks, on May 26, 1937 three hulls were reported floating out of the grounding area, one of which was definitely obstructing navigation, and the other two menacing the shipping lanes. Fortunately, an Army Engineers "plant" was scheduled in the area for a week. The local engineer, one Bullock, quickly recommended the hulls be returned to Mallows Bay, and that the dike, using fill earth in and between the outer ring of hulls, mentioned so many times in the past, be built. It was simply the most economical procedure possible. A total of \$4,600 was officially requested for placing errant hulks back in Mallows Bay and preventing future escapes from the embayment. It was then recommended that the proposed allotment be approved to remove the main hazard to navigation by "construction of a dike over and between the outer row of these hulks and that this office be authorized to perform the work with Government plant and hired labor." The project proved to be but a temporary expedient for, although sand and gravel were piled upon and between the ships, many were soon washed clean by the Potomac waters and Tidewater weather. In the meantime, on February 26, 1941 the Anglo-California Bank of San Francisco sold a non-waterfront section of the Sandy Point Farm to Hugh and Grace Murdock. On March 6 the remainder of the tract, that which embraced the waterfront of Mallows Bay, was sold to Walter R. and Blanche Wilson.¹⁵⁴

The Bethlehem Steel Corporation Ship Reduction Program

On September 1, 1939 Germany invaded Poland and the United States began its steep slide towards war. The price of scrap metal again skyrocketed, and the Mallows Bay hulks once more became of considerable importance when, on June 28, 1940, the Metals Reserve Company (MRC) was established by the federal government to organize and manage the stockpiling of strategic metals. Then, on December 7, 1941, Japan attacked the United States Pacific Fleet at Pearl Harbor, Hawaii, guaranteeing America's participation in World War II.

Within months of America's entry into the conflict, the War Production Board (WPB), which was formed to coordinate national production for the war effort, engaged in a nationwide salvage effort to recover scrap metal. On July 16, 1942 the WPB's special Salvage Program Office forwarded to the MRC a project directive regarding the recovery of strategic metals from the Mallows Bay fleet. On October 10, 1942 Mallows Bay again appears as a special project of

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consideration on a list of the same produced by the Salvage Section of the MRC. The hulls, it was then estimated, were capable of yielding as much as 20,000 tons of scrap.¹⁵⁵

Within two weeks, a U.S. government-sponsored project to salvage the scrap lying buried in the hulls of over an estimated 100 ships lying in Mallows Bay was launched. On October 19, 1942 the WPB instructed the MRC to initiate the project. Anticipating the WPB's directive, the MRC had apparently already begun negotiations sometime earlier with the Bethlehem Steel Company "with reference to the recovery of the said metals." The negotiations resulted in the forming of a contract providing that the MRC would take steps "as it may deem necessary to acquire title and that Bethlehem will do all things that are necessary to recover the maximum amount of metals from the vessels in the water and also in the vicinity thereof." Upon allocation by the WPB, Bethlehem was to transport the metal to its plant at Sparrows Point, Maryland. The MPC would then sell the recovered metals to Bethlehem Steel at Office of Price Administration (OPA) prices. In turn, the MPC would reimburse Bethlehem for the price of the work. Settlement would be effected upon completion of the work with the provision that "if the amount of the metal recovered is in excess of the cost of the work Bethlehem will remit such excess to the Metals Reserve. While, on the other hand, if the cost of the work is in excess of the price of the metal recovered, Metals Reserve will reimburse Bethlehem for such amount."¹⁵⁶

On October 21, 1942 G.W. Nichols, Vice President of the MRC, recommended that the Board of Directors authorize the acceptance of the proposed contract "heretofore executed on behalf of Bethlehem Steel Company." The contract (MR C-1 SSP- 167 and MR DC SSP- 167) was duly authorized and forwarded to the company (albeit with amendments).¹⁵⁷

Bethlehem moved quickly. The property surrounding Mallows Bay, which had belonged to the Wilson family had been sold on December 31, 1942 to Frank O. and Mildred Morgan, and the steel company's first action, presumably, would have been to lease the waterfront areas from the new owners.¹⁵⁸ Then the company's efforts focused upon the construction of a pair of cofferdams and locks, or gates, at the outlet of Mallows Creek. Two earthen coffer dams were eventually constructed, one at the outlet of the creek, and a second several hundred yards upstream. The outer cofferdam was reinforced with concrete and steel and could be closed off by gates. The inner coffer wall was bulkheaded with timber, but it is uncertain whether a gate had been erected capable of sealing it off or not. On the outer gate berm a small pump house was erected, and surrounding the facility, several small houses, storage sheds, and the like were also built. Dredging within the newly created basin, and on the approach to it, to create a straight-line channel into the basin, was also deemed necessary to facilitate salvage.

The methodology of the salvage work is only presumptive, based upon the surviving remnants of the facility and the vessel remains therein. It appears, however, that the modus operandi was to float one or several of the hulls into the newly created basin, close the gate, pump the basin dry, or nearly so, and burn the hulls down in a controlled environment, remove the metals, open the gates and re-flood the basin to begin the cycle anew.

The project appears to have met with difficulties early on. Sometime in the first half of May 1943, during construction, a costly breakthrough of one of the dams occurred, which made additional expenditures necessary for repairs and a revision of the building design. Engineers from the MRC felt that a portion of the mishap was due to "the lack of attention by Bethlehem in supervising the engineering details of the construction."¹⁵⁹

By December 31, 1943, Bethlehem's agreement "to do all things necessary to recover the maximum amount of metal from certain vessels requisitioned at the request of the War Production Board" had cost the company \$360,000, but had yielded "a very small recovery of metal." Within two months company expenditures on the project had become substantial enough for Bethlehem to request that it be reimbursed in the amount of \$200,000 as partial payment.¹⁶⁰

On March 10 MRC Assistant Vice President H.W. Cornell, Jr., reported that Bethlehem had finally agreed to bear the expenditures incurred despite the fact that they were receiving no compensation. In view of the company's large expenditures, he recommended that, pending the completion of an audit, the MRC settle with Bethlehem to January 1, 1944. The Board of Directors readily approved. Not until May 1944, however, had an agreement been reached regarding the costs incurred by the dam breakthrough. An arbitrary figure agreed upon by both Bethlehem and the MRC was placed

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at \$15,000.¹⁶¹

Despite the difficulties, Bethlehem persisted in its operations. In May 1944 the MRC requested that the company salvage the hulk of the SS *Bodkin*, ex-U.S.S. *Nokomis*, under an amendment to the existing contract. The company was instructed to move the ship to Mallows Bay but to remove only that metal that could be re-melted.¹⁶²

Bodkin had been built by Pusey and Jones, of Wilmington, Delaware and launched in May 1914 as the yacht *Nokomis II*. She had been purchased by the War Shipping Administration from Horace E. Dodge, of Detroit, Michigan on June 1, 1917 and renamed Burke. Taken into service by the U.S. Navy, she was again renamed *Nokomis* on November 19, 1917, and commissioned at Philadelphia on December 3, 1917 as a submarine chaser (SP-609). *Nokomis* was a fast, powerful, and sleek vessel. Her main engines had been steam triple expansion built by the Wood River Iron Works. Her main boilers has been a pair of Babcock & Wilcox watertube type. She possessed a shaft horsepower of 2,000, which drove her twin propellers, and produced a maximum speed of 16 knots. *Nokomis* had a displacement of 1,265 tons, and was 243 feet in length, 31 feet 10 inches abeam, and 12 feet 10 inches draft. She was a composite steamer of steel construction but with wood planking, two decks, and traverse framing. Armed with four 3-inch guns, she was manned by 191 officers and crew. Fitted out at Philadelphia, she had sailed on her first mission to Bermuda with a French submarine chaser in tow. She departed Bermuda for Brest, France on January 8, 1918, stopping en route at the Azores and Lexicoes, Portugal. Operating with the U.S. Patrol Squadron for the remainder of WWI, she helped protect American troop transports approaching the coast of France. Terminating this duty in 1919, *Nokomis* returned to the United States in August. Reclassified *PY-6* in 1920, the yacht decommissioned at New York on February 25, 1921. Although outfitted as a tender for the Naval Governor of Santo Domingo in July 1921, she did not assume this duty, but conducted surveys in Mexican and Caribbean waters under direction of the Hydrographic Office. Returning to Norfolk on September 24, 1934, *Nokomis* again decommissioned on February 15, 1938 and was struck from the Navy Register on May 25, 1938. Renamed *Bodkin* on June 1, 1943, she was loaned to the Coast Guard (then operating as part of the U.S. Navy) but her condition at the time was termed very poor. Nevertheless, she underwent conversion work at the Coast Guard Yard at Curtis Creek, Maryland for service as a submarine chaser, and was to have been assigned to EASTSEAFRON and stationed at New York, NY. After more than \$150,000 in conversion costs, however, work was suspended due to the decline in German submarine activity on the East Coast. *Bodkin* would never see service again. She was scrapped at Mallows Bay for on June 22, 1944. Bethlehem agreed to carry out the final ship breaking operation on the bay.¹⁶³

By the fall of 1944 the market for scrap metal had slowed markedly, and the government no longer saw the necessity of subsidizing the movement of iron and steel scrap. Thus, on September 22, 1944, Cornell recommended that all work under the contract between the MRC and Bethlehem Steel Company "be terminated as expeditiously as possible, except the work on the hull SS '*Bodkin*'." The recommendation was immediately approved.¹⁶⁴

By November 6, 1944 the dismantling of Bethlehem's Mallows Bay facility was well underway and capital equipment was already being moved to Sparrows Point, Maryland. Much, however, was left behind. A steam hoist with a 40-horsepower boiler, for instance, originally acquired for \$1,000 specifically for the project, which had been mounted on a scow owned by the McClean Contracting Company (one of Bethlehem's subcontractors), was now valued at barely \$250 if dismantled and moved. McClean offered \$600 cash for the hoist if it remained attached to the scow. Bethlehem, with the MRC's approval, accepted with the provision that the money be credited to the proceeds from such sales to the project.¹⁶⁵

On November the MRC authorized Bethlehem to dispose of all items which had cost \$500 or less without further approval from the MRC. All items costing over \$500 would require prior consent before being sold. All disposals would be in accordance with regulations of the War Production Board. Any additional expenditures necessary to close the project would have to be submitted to the MRC. The appraisal and estimation of the sale value of the equipment was placed at \$9,087 and the estimated sale value given as \$6,605. Two bids were received for equipment "as is, where is": the first was submitted by the McClean Construction Company with a bid of \$4,750; the second and successful bid, was submitted by the Boston Iron and Metal Company of \$7,200.¹⁶⁶

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In the years that followed the termination of the Bethlehem operations at Mallows Bay, several unsuccessful and controversial efforts were launched to remove the hulks lying with and adjacent to its waters. Study followed study.

On July 2, 1970, after one such effort at securing permission to remove the hulks, quietly promoted by Potomac Electric Power Company to provide barge access to the shore requisite for building a nuclear power plant at nearby Douglas Point, the Secretary of the Maryland Department of Natural Resources wrote to the U.S. House of Representative Public Work's Committee on Government Operations that the removal of the hulks would serve no public interest and that the State of Maryland had no plans to contribute the "local interest" matching funds required by Section 116 of the 1968 River and Harbor Act.¹⁶⁷

For the first time, the issue of the ecological status of Mallows Bay was brought to center stage. The official committee report, published in 1970, painted a vivid picture of the bay at that time.

*The hulks have been filled with gravel and pilings have been driven around the periphery of Mallows Bay to keep them from floating out into the navigation channel. Nevertheless, from time to time in heavy storms several of them have floated loose. Others seem to have sunk without trace. The Corps of Engineers has identified 99 hulks as still being aground in Mallows Bay, one near Sandy Point, 9 across the river at Wide Water; which is south of Quantico, Virginia, and one on the Virginia shore opposite Maryland Point. Many of the old hulks are now overgrown with bushes. Seen from the air some of the hulks look like huge flowerpots. Only the outlines are visible. Over the years, trees have taken root in the earth inside the hulls, and these strange islands are not at all unattractive. Herons and egrets make their homes there. The American bald eagle nests in the area. The adjacent part of the estuary is spawning ground for striped bass. Until recently Mallows Bay was a great place for fishing, and will be again if the sewage pollution originating at Washington and its suburbs is ever cleaned up.*¹⁶⁸

Testimony in support of the uniqueness of the mini-ecosystem in Mallows Bay and the impact the removal of the hulks might have upon it were to have a significant impact in the committee's decisions. Mrs. Hal Margargle, Environmental Chairman of the League of Women Voters of Charles County, and Chairman of the Conservation Committee of the Audobon Naturalist Society of the Central Atlantic States, testified before the committee: "The burned-out remains of the World War I troop ships now in the bay have been there for so long - nearly half a century - that it is inconceivable that they are not an integral part of the ecosystem."¹⁶⁹

Dr. Eugene L. Cronin, Director of the Chesapeake Biological Laboratory noted to the committee that Mallows Bay included the interface between salt and fresh water on the river where salinity varies between zero and five thousand parts of salt dissolved in a million parts of water. The location of the interface varies with the season and from year to year, depending on the fresh water inflow from the estuary. As for the removal of the hulks, he stated:

*Shipwrecks, which have existed in Mallows Bay for many years, have no doubt established a special ecosystem. It has functioned to some extent as an artificial reef and attracted some species of fish. . . . The removal of the wrecks would restore the bay to its natural ecological balance, and will during the process cause some temporary readjustment on the part of the existing fauna and flora. We can see no harm to the environment. Since this is a critical spawning and nursery zone for striped bass, it would be wise not to perform the removal during the spring season.*¹⁷⁰

Although Cronin was not against removal of the hulks from an environmental standpoint, the United States Department of the Interior was. In regards to the fisheries, Assistant Secretary of the Interior Leslie L. Glasgow stated: "Fishery use at the present time is largely governed by the polluted condition of the river. If the river were cleaned up, there would be much higher fishery use there." To remove the hulks, however, had ramifications which had not even been addressed by Dr. Cronin. "That is," stated Dr. Glasgow, "the fact that if, in removing these hulks, you disturb the bottom sediment a great deal, and if it is polluted with DDT and other chemical, you would then by stirring it up repollute the area."¹⁷¹

In the artificial environment of Mallows Bay the derelict wreck population's slow but certain evolution has held

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and enriched the sediments, helping to cement the river's pollution beneath the bottom muds while both filtering them and providing habitats and food sources to a wide range of life forms. In the process, each vessel has, over time, become a mini-ecosystem unto itself. Just as it was once the last refuge of the Potomac snowy egret and the site of Maryland's last sturgeon fishery, so Mallows Bay has again blossomed with biodiversity. In many ways it is a giant artificial reef to which the creatures of the water, land and sky flock to flourish, reclaiming this stretch of the river from the trauma of industrial salvage and pollution.

As the embayment continues to evolve, the derelicts do so as well, moving about, some sinking ever deeper into the muds that have anchored them. And nature's forces continue to be asserted. During Hurricane Isabelle in 2004 a number of vessels shifted position. One ship, *Benzonia* (18CH515), was virtually lifted from its resting place in Transect 2 and laid back down again, its artifact-laden lower hull fully exposed, atop another steamship hull, *Caribou* (18CH531) and the hulk of a wooden salvage barge (18CH589). During a more recent storm, one of the USSB vessels lying off Widewater, possibly *Aberdeen*, was moved 500 yards downriver to a new resting place. Today an estimated 70 percent of the vessels that were visible in Mallows in 1998 now rest just below mean low water even as they are once more becoming subject to the stress of human action.

In 2001 Maryland launched a landmark program called GreenPrint, designated to save the most ecological and irreplaceable natural resources in the State. With \$3 million committed by the State and \$3 million in Federal funds, several tracts of land, including the Wilson Farm Tract at Mallows Bay, incorporating much of the land adjacent to Transect 2 and surrounding Transects 3 and 4, were purchased from PEPCO to prevent commercial gravel mining and urban development. These tracts were to be jointly administered by the Maryland Department of Natural resources and the U.S. Bureau of Land Management. Soon afterwards management of the tract was turned over to the stewardship of Charles County. In the summer of 2011, through the efforts of the local parks and recreation office, direct small boat access was opened to once remote Mallows Bay and to the scores of historic marine and terrestrial sites therein. Public visitation to the once nearly unapproachable sites is now increasing through promotion of the adjacent park, even as the wrecks themselves become tourist attractions.

MARYLAND ACHAEOLOGICAL SITE DESIGNATIONS

The following includes all known archaeologically designated sites within transects 1 through 4 within the Mallows Bay-Widewater study area, but does not include terrestrial sites and sites known but having no Maryland State archaeological site number. State Site numbers are those ascribed by the Maryland Historical Trust. Site field numbers are those employed during survey and on all subsequent maps. Army Engineer numbers are those which appeared on the 1929 ACE map of the Mallows Bay ship disposal area.

Site State No.: 18CH487.

Site Field No.: 74

Army Engineers No.: Unknown.

Transect: 1.

Location: 38°29.00 - 77°16.280.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Well preserved amidships. Bow section is disintegrating. Lower hull extant. Shoreline accretion and vegetation enshroud the starboard side, and river debris covers the remainder of the exposed hull.

Orientation: Southwest to northeast, with bow facing north, on bearing 40.5°.

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Identification: Unidentified. Dubbed "The Sentinel Wreck" for its position on the approach to Mallows Bay.

Origin: United States Shipping Board.

Proximity: At Sandy Point, the northern extremity of transect, and north of 18CH488 (Barge) and 18CH491 (Wharf).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: None

No. of Screws: 1.

Length: 260 feet 4 inches.

Beam (extreme): 45 feet 7 inches (measured at 170 feet forward of stern).

Depth of Hold: Not determined.

Draft: Unknown.

Room & Space: Not determined.

Fasteners: Iron and wood.

Strapping: Iron cross strapping begins at the fifth frame forward of the sternpost. Fitting holes in strapping appear every 6 to 7 inches along the length of each strap.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Dense overgrowth on the starboard (landward) side, with the shoreline encroachment covering most of the midships on that side. Trees, large brush, and a small poulder occupy a significant portion of the wreck area.

Comments: This site is the northernmost wreck in the study area. The hull lies on a sandy shore that has gradually accreted over its starboard side. The hull is held in place by the accreted shoreline, the root structures of trees that have grown up over the accreted area, and by a steel cable that is lashed between the stern and a tree ashore. The surface of the mature tree has overgrown the cable, indicating that the lashing is certainly of several decades antiquity. The vessel is believed to have been one which floated free from Mallows Bay, possibly the same which drifted into Chopawamsic Creek in 1936, and later removed prior to 1952 by the U.S. Navy and towed back to the study area and abandoned.

The site contains many well-defined features not found to date on other sites. Among these is a stationary pair of sheaves alongside the keelson in a compartment in the port stern area. The sheaves may have served as a component of the rudder cable line management system. The foundations of some small compartment areas are notably defined. Ashore, site 18CH40, a large compartment bulkhead that stands alone to the southeast of the stern, may possibly have once been a component of the wreck which broke free and drifted into its present location.

Examination of the iron fittings along the keelson line indicates that they are generally one foot shorter than floor pins. Frame fittings are driven in on an average of 5 to 6 inches apart. At a distance of 140 feet forward of the sternpost, iron spikes are spaced along the keelson centerline in 5 rows, unevenly laid across from side to side but straight and regular from bow to stern, suggesting the assembly line sequence of laying in spikes was from bow to stern, line for line, rather than port to starboard or vice-versa. At 185 feet from the stern, the spacing increases to 6

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abreast. At 150 feet forward of the stem, 2 partitions, possibly bulkheads, are indicated by latitudinal pins. The many thousands of iron fittings exposed within the hull have served to act as traps that have snared waterborne riprap when the vessel is inundated by extreme high tides. Threaded iron pins still project vertically from the engine and boiler platform mounts, and once served to hold the machinery to the deck. At least several wooden treenail fittings are in evidence, all of which were exposed by water erosion, and usually in a better state of preservation along the keelson than elsewhere in the wreck.

The hull was constructed of pine. Wood erosion by repetitive water action is severe in some areas. At 120 feet forward of the stem, the keelson has been eroded to such an extent that knots in the wood are exposed.

Site State No.: 18CH488.

Site Field No.: 78.

Army Engineers No.: None.

Transect: 1.

Location: 38°28.550 - 77°16.290.

Site Class: Historic.

Site Type: Barge.

Condition: Poorly preserved. Partially exposed.

Orientation: East-west with one end lying hard on the beach, on bearing 92°.

Identification: Unidentified.

Origin: Unidentified. Probably American, belonging to either Western Marine and Salvage Company or Bethlehem Steel Corporation.

Proximity: Lies perpendicular to the beach on Sandy Point to the immediate south of 18CH487 (Unidentified steamship).

A 3-piling dolphin was located off the northwest corner of the seaward end of the hulk at a distance of 65 feet.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: 60 feet (estimated).

Beam (extreme): 22.5 feet.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: None.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Work platform, cargo hauling.

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Flora & Fauna: None.

Comment: Five longitudinal stringers, 40 to 45 inches apart, run from end to end. A single wooden fender plate, 2 foot 5 inches wide, is still attached to the molded ramp end on the beach. Athwartships floor beams were 9 inches square. A single knee was fastened to the south wall and bolted to a stanchion. The knee served to clamp the stanchion into place, but was not substantial enough to offer support for any inside rail that most likely would have been located above it. Side stanchions were still standing along most of the length of the vessel.

Some wall and deck planking were in slight evidence but most appear to have collapsed off the sides or still lie buried in the sand. Wall planks were 5 inches wide. Some structural integrity appears to remain on the site although the principal remains are skeletal features such as stringers and stanchions and the central chine log. This hulk was most likely employed by Bethlehem Steel Corporation during its scrapping operations at Mallows Bay (although no evidence other than its appearance during the period of the Bethlehem Steel Corporation's activities in the area support such a hypothesis), and was abandoned in its present location between 1943 and 1952. Miscellaneous debris lies in the area, including an 8-foot-long piling, an iron cylinder buried 6 feet in the sand, concrete and metal conglomerates, miscellaneous pieces of wreckage, iron ship strapping fragments, and other detritus.

Site State No.: 18CH491.

Site Field No.: 79.

Transect: 1.

Location: 38°28.540 - 77°16.290.

Site Class: Historic - transportation - rural - standing structure - visible ruin.

Site Type: Wharf.

Ethnic Association: Anglo-American.

Materials Present: Wooden pilings.

Diagnostics: None.

Features Present: Yes.

Types of Features: Pilings and planks.

Method of Sampling: Visual investigation and measurements taken by divers.

Flotation Samples: None.

Soil Samples: None.

Other Analysis: Archival.

Comments: This wharf site, with the remains of a wooden barge, site 18CH488, drawn up alongside it, was intact until at least the mid-1960s. Sandy Point was employed as the Maryland shore terminal point for the Cook Ferry operations running to Widewater, Aquia Creek, and Colchester, Virginia ca. 1860s, but it is uncertain (although quite probable) whether a wharf was erected at the point for that service. In 1885, a sturgeon fishing operation was conducted from the point by Captain Morgan Monroe who rented a farm in the neighborhood as an operations base. It has been argued by some historians that a steamboat wharf was erected here in the late 19th century [Tilp 1978: 22, 313]. In April 1923 WM&SC constructed a wharf at Sandy Point to facilitate the scrapping operations being carried out there on at least 5 vessels belonging to the U.S. Shipping Board wooden steamship fleet. Later, the wharf may have briefly served steamboat operations on the river. The wharf remains consist of 3 piling lines extending perpendicularly from the shore, 8 pilings to a line. The lines are set 6 feet apart. Each piling in line is set apart from the next piling in line by 7 feet 3 inches. Twenty pilings are still extant (one of which has fallen in place), but 4 pilings in the central sector of the facility appear to be missing. Each piling is 10 inches in diameter. Two clusters of dolphins, one located approximately 140 feet to the southwest of the seaward terminus of the wharf remains, and a

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second located 30 feet to the northwest, were extant in 1993. At the seaward end of the piling line, the Sandy Point navigational light was moored in 1994, but as of this writing is no longer in position. The wharf does not extend entirely to the channel drop off, but does end in approximately 8 feet of water (MLW). The WM&SC wharf was not completed to specifications and was not approved by the Army Corps of Engineers, but would have been adequate to service barge operations, which required only 4 to 6 feet of water depth. A wharf to service steamboat operations generally required a minimum of 8 to 10 feet of water depth. It appears that the barge (18CH488) lying next to the wharf may have been moored to the facility when abandoned, as it is less than 15 feet to the north and parallel to it.

Site State No.: 18CH492.

Site Field No.: 35.

Army Engineers No.: None.

Transect: 2

Location: 38°28.058 – 77°16.135.

Site Class: Historic.

Site Type: Automobile and passenger ferry.

Condition: Resting on keel, aground and generally exposed. The hull, from the keel to the car deck, forward of midships, is generally well preserved. The superstructure, from the car deck and above, has been removed by scrapers. The area aft amidships has been cut down, and the extreme stern is awash. The hull is rusting away in some areas and is hazardous to walk upon. The forward sector of the vessel is perhaps the best preserved, above and below decks, with some mechanical equipment on the car deck still in place. Engines and some machinery amidships below and aft are also still in place in an otherwise gutted interior. The rudder post stands adjacent to a large pile of stone laid down in the stern to hold the hull in place. Below decks in the bow, the remains of wooden decking, bulkheading, and electronic circuit boards, etc., are well preserved. The trademark "spoon" bow shape, a major alteration of the original architecture, added ca. 1951, is still well defined, as are many other design features of the ship.

Orientation: Southwest-northeast, with the bow facing northeast, on bearing 46°.

Identification: *Accomac*.

Origin: Built as the *Virginia Lee* at Quincy, Massachusetts, 1928.

Proximity: Lying in the southwest sector of the transect, with 18CH573 (Unidentified steamship) immediately off its port side.

Hull Remains: Steel.

Hull Configuration: Keel.

Stern Configuration: Round.

Propulsion System: Diesel Screw.

No. of Masts: None.

No. of Screws: 1.

Length: 291.1 feet.

Beam (extreme): 50.1 feet.

Depth of Hold: 16.5.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Rivets.

Strapping: None.

Concrete: Blocks of concrete have been deposited in the stern and in the bow below decks to hold the ship in place.

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Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: 3 extant.

Rudder Post: Extant.

Gudgeon/Pintals: None.

Probable Service: Automobile and passenger carrier.

Flora & Fauna: Dense vegetation covers the stern of the vessel in certain areas seasonally. The site was employed as one of the 2 biotic inventory platforms in the transect during archaeological investigation. Shellfish and sub-aquatic vegetation were identified in the flooded hold of the ship. On the starboard bow, an osprey nest has been in place from at least 1986 and is still occupied. In the spring of 1998 a juvenile osprey was observed in the nest. As of August 2013 the nest remains with its occupants.

Comments: *Accomac* is the only steel-hulled vessel in the study area. The ship was built at Quincy, Massachusetts in 1928 as the *Virginia Lee*. During World War II it was requisitioned by the U.S. government and loaned to the British Ministry of Transport for convoy duty between Halifax, Nova Scotia and Great Britain. Owing to freezing pipes and mechanical difficulties, the ship was returned to New York and refitted. Its next mission was hauling rubber, then a strategic war material, from the Brazilian Amazon. After the war, the ship passed through several owners, was converted to diesel power, and renamed *Holiday*. She was soon placed in service as a ferryboat running between Boston, Plymouth, and Provincetown, Massachusetts. During the winter of 1950, under new ownership, while en route to begin a new operation at Houston, Texas, it was severely battered and damaged by a storm off Cape Hatteras. The following spring the ship was sold to the Wilson Line and rebuilt for service with the Virginia Ferry Corporation, a subsidiary of the Pennsylvania Railroad. As the screw steam ferry *Accomac*, the ferryboat was intended for service between Cape Charles and Norfolk, Virginia. The ship underwent a major structural overhaul. To permit accommodation of head-on loading, it was given a new "spoon" bow and was soon capable of hauling 70 cars and 1,200 passengers per trip. She was assigned to the Kiptopeke-Little Creek, Virginia, run. On May 28, 1964, the ship suffered a fire and was permanently taken out of commission. In 1965 her owner is listed as the U.S. Secretary of Commerce. By 1971 it was listed as out of documentation. About 1973 the ship was hauled into Mallows Bay and abandoned. [Harry Jones, personal communication, 1984; Fred Hopkins to Donald Shomette, December 2, 1992; Elliott, 143-451].

Site State No.: 18CH493.

Site Field No.: 23.

Army Engineers No.: 36.

Transect: 2.

Location: 38°28.300 – 77°16.068.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel, partially submerged. Exposed sections are filled with soil and overgrown with vegetation. Some fire damage.

Orientation: North by northeast-south by southwest, with bow facing north by northeast, on bearing 23°.

Identification: *Adway*.

Origin: Built by Nilson and Kelez Shipbuilding Corp., Seattle, Washington, for the United States Shipping Board.

Proximity: The bow sector is aground in the base of a bluff. 18CH540 (*Flavel*) lies off the port midships, and 18CH495 (*Aiken*) off the starboard stern.

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Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel extant and measures 1 foot 5 inches inboard and 7 inches outboard.

No. of Masts:

No. of Screws: 1.

Length: 294 feet. (Measure may be inaccurate as it was taken from side instead of centerline).

Beam (extreme): 43 feet. (Measurement taken 128 feet aft the bow).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: Concrete chunks were noted ashore in the bow area, but not specifically onboard. Concrete frames were also noted in the stern.

Stempost: None.

Sternpost: Extant, but in a disintegrating condition.

No. Bulkheads: Bulkheads extant but number not determined.

Rudder Post: Extant. Distance between rudder post and a rapidly disintegrating stern post is estimated at 9 feet. Rudder extant.

Gudgeon/Pintals: One gudgeon noted.

Probable Service: Cargo carrier.

Flora & Fauna: Dense vegetation covers the entire vessel.

Comments: At least 120 feet of the bow of No. 23 is buried in the shoreline (or torn away) and covered over by a heavy growth of vegetation. A cable was discovered running from the bow inland and up a narrow ravine, apparently to anchor the ship in position. The vessel was released from bond on 12 October 1928 and was thus burned down prior to that date. It was moved to its present location prior to June 1943. With its forward area firmly hauled into the shore and partially removed, it is probable that the ship represents one of the few vessels intentionally beached to facilitate scrapping operations. The hulk lies directly in the mouth of what appears to be a crude marine haul or slipway. The bow is completely gone, or buried beneath a rubble pile of concrete and covered by dense vegetation. A burned cable was located 294 feet forward of the stern and is presumed to have been in the bow section.

Site State No.: 18CH494.

Site Field No.: 16.

Army Engineers No.: 58 [?].

Transect: 2.

Location: 38°28.220 - 77°15.593.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Exposed, but heavy overgrown of vegetation prohibited examination of interior.

Orientation: North-south, with bow facing north, on bearing 1560.

Identification: *Afrania* [?].

Origin: Built by Grant, Smith, Porter Co., Portland, Oregon, for the United States Shipping Board.

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Proximity: Stern lies approximately 75 feet from central beach area of transect. The bow lies off the starboard midships side of site No. 17.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts:

No. of Screws: Not determined.

Length: 266 feet 3 inches.

Beam (extreme): 45 feet 6 inches (measurement taken 150 feet 9 inches aft the bow). **Depth of Hold:** Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross straps.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: Extant. No rudder located in area.

Gudgeon/Pintals: One gudgeon extant.

Probable Service: Cargo carrier.

Flora & Fauna: The hulk is filled with soils that support a dense growth of vegetation, far too dense to permit effective survey. Swamp dogwood, yellow iris, Star of Bethlehem, and false indigo, are found in profusion. A large American elm stands tall 33 feet aft a brick pile amidships. Two dogwood trees were observed torn up by the roots after a storm and hung over the starboard midships and stern. A single nutria was observed (5/9/93) swimming along the midships hull and then boarding the hulk.

Comments: *Afrania* was officially released from bond on 13 July 1926, indicating that the ship was burned down prior to that date. The vessel does not appear in its present position on the 1952 aerial photographs of the transect. A cable extends across a narrow sound of water, running from the stern of the ship, to which it is affixed, to the shore where it disappears into the soils. It thus seems likely that the hulk was among several vessels that may have drifted from their original anchorage and were later hauled onto the Nearshore and fixed in place to prevent continued migration or becoming an obstruction to navigation. Small mounds of bricks have been observed amidships.

Site State No.: 18CH495.

Site Field No.: 86.

Army Engineers No.: 72.

Transect: 2.

Location: 38°28.229 – 77°16.068.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel, with starboard exposed. Appears lying with slight tilt to port.

Orientation: East-west with bow facing east, on bearing 103.5°.

Identification: *Aiken*.

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Origin: Built by the Grant, Smith, Porter Co., Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in north central sector of the transect. Sites 18CH507 (*Arado*) and 18CH533 (*Coconino*) lay off the port side and port bow, and 18CH542 (*Fort Stevens*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel is extant and is 1 foot 9 inches in width.

No. of Masts: -

No. of Screws: 1.

Length: 257 feet 9 inches.

Beam (extreme): 45 feet 2 inches.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: In bow and stern. The concrete in the bow is clearly defined and evidenced on the surface by a "T" form with a cut off foot, which stands only 6 inches above the water at MLW. The concrete blocks or frames in the stern stand astride the shaft tunnel.

Stempost: Not determined, but probable.

Sternpost: Not determined.

No. Bulkheads: No main, but forepeak partition extant.

Rudder Post: Extant. No rudder discovered. The distance between shaft tunnel outlet and rudder post is 7 feet 7 inches.

Gudgeon/Pintals: One gudgeon extant.

Probable Service: Cargo carrier.

Flora & Fauna: Light vegetation lines the walls of the afterpeak and along the starboard wall. That which lies in the afterpeak grows to a height of 6 feet. During the summer, the site is heavily clogged with hydrilla.

Comment: On the starboard side, amidships, blocks off the engine platform were found lying against the hull, amidst a scatter of fire brick. Each of the blocks had a hole in the center and bore the imprint "E.F. Corp.", presumably meaning "Emergency Fleet Corporation." *Aiken* was officially released from bond on 13 July 1926, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929, with only a very slight migration eastward.

Site State No.: 18CH496.

Site Field No.: 120.

Army Engineers No.: 73.

Transect: 2.

Location: 38°28.236 - 77°16.126.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged except for forepeak and forward starboard side.

Orientation: East-west with bow facing east, on bearing 89°.

Identification: *Alabat*.

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Origin: Built by the American Shipbuilding Co., Brunswick, Georgia, for the United States Shipping Board.

Proximity: Lies in north central sector of the transect. The bows of sites 18CH521 (*Boxley*) and 18CH550 (*Mono*) are at the stem, 18CH540 (*Flavel*) off the port side, and 18CH566 (*Woyaca*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: A single plant thrives on the stempost (1997).

Comment: *Alabat* was officially released from bond on 12 October 1928, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH497.

Site Field No.: 70.

Army Engineers No.: 63.

Transect: 2. **Location:** 38°28.247 – 77°16.156.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 106°.

Identification: *Alanthus*.

Origin: Built by The Foundation Co., Passaic River, New Jersey, for the United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH516 (*Bobring*) off the port, and 18CH521 (*Boxley*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

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No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Not determined.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: The construction of *Alanthus* was completed at Newark, New Jersey. The ship was delivered to the Emergency Fleet Corporation and then turned over to the Potter Transportation Co., Inc. of New York. On 7 December 1918, John A. Donald, Acting Chairman of the USSB, was informed that the vessel would officially become operative on 9 December. In October 1922, *Alanthus* was among the first wooden steamers to arrive at the Virginia Shipbuilding Corporation wharf at Alexandria, Virginia, to begin reduction by the removal of her engines, boiler, and other heavy gear. Soon after her arrival at the wharf with the steamship Mojave, a fire broke out aboard, causing "one of the most stubborn [fires] Alexandria fire fighters have battled." The hull was saved, and then towed to the Widewater anchorage area, and eventually into the outer tier of hulks at Mallows Bay [Cost of Construction; *Alexandria Gazette*, 18 April 1923]. Hull has been in its present location since at least 1929.

Site State No.: 18CH498.

Site Field No.: 68.

Army Engineers No.: 110.

Transect: 2.

Location: 38°28.230 - 77°16.150.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 96.5°.

Identification: *Alapaha*.

Origin: Built by the Traylor Shipbuilding Corp., Cornwells Heights, Pennsylvania, for the United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH550 (*Mono*) off the port, and 18CH520 (*Bottineau*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

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Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Not determined.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: On 13 August 1929 bonded for burning. Hull has been in its present location since at least 1929.

Site State No.: 18CH499.

Site Field No.: 95.

Army Engineers No.: 88.

Transect: 2.

Location: 38°28.172 - 77°16.070.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Largely submerged, with sections of port hull fallen away.

Orientation: East-west with bow facing east, on bearing 102°.

Identification: *Alcis*.

Origin: Built by the Grant, Smith, Porter Co., Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in east central sector of the transect. Site 18CH549 (*Marshfield*) lies off the port side, 18CH502 (*Alta*) off the port stern, and 18CH529 (*Cabeza*) off starboard stem.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

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Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Concrete frames exposed at stern.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 1 foundation visible.

Rudder Post: Extant. No rudder discovered.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Light vegetation in the forepeak, including a small tree.

Comment: *Alcis* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH500.

Site Field No.: 135.

Army Engineers No.: 120.

Transect: 2.

Location: 38°28.210 - 77°16.140.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 96°.

Identification: *Allison*.

Origin: Built by the Russell Shipbuilding Co., Portland, Maine, for the United States Shipping Board.

Proximity: Lies in Tier 6, in the west central sector of the transect. Site 18CH522 (*Boykin*) lies off the port stern, 18CH526 (*Buhisan*) off the port, 18CH553 (*Namecki*) off the starboard.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined. Width: Not determined. Thickness: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: None visible.

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Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: The hull has been in its present location since at least 1929.

Site State No.: 18CH501.

Site Field No.: 36

Army Engineers No.: 43.

Transect: 2.

Location: 38°28.266 - 77°16.104.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Substantial preservation, but overgrown with vegetation. Partially submerged.

Orientation: East-west with bow facing east, on bearing 105°.

Identification: *Alpaco*.

Origin: Built by the Hodge Ship Co., Moss Point, Mississippi, for the United States Shipping Board.

Proximity: Lies in the northern sector of the transect, with 18CH558 (*Panga*) and 18CH567 (*Yawah*) off the port (north) side, and 18CH530 (*Calala*) off the starboard (south) side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Extensive growth along all exposed timber.

Comments: The site is difficult to access by water owing to the coverage of surrounding hulks. *Alpaco* was officially released from bond on 12 October 1928, indicating that the ship was burned down prior to that date. Site in present

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location at least since 1929, with slight migration eastward prior to 1936.

Site State No.: 18CH502.

Site Field No.: 59.

Army Engineers No.: 103.

Transect: 2.

Location: 38°28.176 - 77°16.098.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 91°.

Identification: *Alta*.

Origin: Built by the Alabama Drydock and Shipbuilding Co., Mobile, Alabama, for the United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH541 (*Folsom*) off the port stern, 18CH529 (*Cabeza*) off the starboard side, and the sterns of 18CH549 (*Marshfield*) and 18CH499 (*Alcis*) off the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Concrete posts observed from a distance.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 1 foundation visible.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Difficult to access. Site has been in same location since at least 1929.

Site State No.: 18CH503.

Site Field No.: 57.

Army Engineers No.: 78.

Transect: 2.

Location: 38°28.185 - 77°16.123.

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Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 92.5°.

Identification: *Andra*.

Origin: Built by the Russell Shipbuilding Co., Portland, Maine, for the United States Shipping Board.

Proximity: Lies in the central sector of the transect, with 18CH517 (*Bockonoff*) and 18CH563 (*Wakan*) off the port side, 18CH541 (*Folsom*) off the starboard side, and the bows of 18CH547 (*Kasota*) and 18CH575 (*Benzonia*), sandwiching in the stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1. Shaft tunnel extant.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Stern lies in 6 feet of water (MLW). *Andra* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. Hull has been in present location since at least 1929.

Site State No.: 18CH504.

Site Field No.: 83.

Army Engineers No.: 27.

Transect: 2.

Location: 38°28.257 - 77°16.056.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Usually flooded, with sides and centerline exposed. Some fire damage.

Orientation: East-west with bow facing east, on bearing 105.5°.

Identification: *Angelina*.

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Origin: Built by the Beaumont Shipbuilding and Drydock Co., Beaumont, Texas, for the United States Shipping Board.

Proximity: Lies approximately 160 yards from the beach in the north central sector of the transect. 18CH555 (*North Bend*) lay off the port side, the bow of 18CH552 (*Musketo*) is off the stern, and 18CH507 (*Arado*) and 18CH533 (*Coconino*) lay off the starboard.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Engine and boiler platforms are well defined.

No. of Masts: -

No. of Screws: 1. Shaft tunnel extant and is 3 feet 7 inches wide (outside measure). **Length:** 258 feet 8 inches.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: Extant astride the shaft tunnel and amidst heavy vegetation. Not determined in bow.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 3 foundations extant.

Rudder Post: Extant, 8 feet tall, and 6 feet 7 inches from sternpost. No rudder discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Light to heavy vegetation on port stern and bow. A pine tree grows on the stern. Feces of river otter, totaling 10 scats, were noted onboard. The otter's diet consisted of fish, as indicated by scales in the scat. Several bird nests were noted amidships on the sidewall but no eggs.

Comment: The hull displays some signs of fire trauma. Some metal artifacts of undetermined nature lie about the site. One identifiable artifact, lying alone in the hull, was an iron gudgeon. Angelina was officially released from bond on 17 March 1928, indicating that the ship was burned down prior to that date. The hull has been lying in its present location since at least 1929.

Site State No.: 18CH505.

Site Field No.: 29.

Army Engineers No.: 146.

Transect: 2.

Location: 38°28.122 - 77°16.124.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Peninsula type.

Condition: Resting on keel. Exposed on port and starboard stem aft amidships, and in forepeak area at MLW

Orientation: East-west with bow facing east, on bearing 90°.

Identification: *Anoka*.

Origin: Built by Peninsula Shipbuilding Co., Portland, Oregon for the United States Shipping Board.

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Proximity: Lies in the southwest sector of the transect, with 18CH568 (Unidentified steamship) off its starboard (south) side, and 18CH575 (*Benzonia*) off its port (north). 18CH577 lies off its stem.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Engine and boiler platforms extant.

No. of Masts: -

No. of Screws: 1. Shaft tunnel extant.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: Broken concrete in stern area.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: None extant.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Light vegetation in afterpeak area.

Comments: A large iron deck cleat lies in the port stern area. Hull has been in position, with slight movement, since 1929.

Site State No.: 18CH506.

Site Field No.: 32.

Army Engineers No.: 149.

Transect: 2.

Location: 38°28.149 - 77°16.135.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. One of the better preserved USSB vessels in Mallows Bay. All edges and strapping well defined, as when built. No fire damage.

Orientation: East-west with bow facing east, on bearing 87°.

Identification: *Aowa*.

Origin: Built by the Johnson Shipyard Co., New York, NY, for the United States Shipping Board.

Proximity: Lies with 18CH556 (*Nupolela*) off its starboard (south) side, and 18CH559 (*Quapaw*) off its port (north).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Engine and boiler platforms, and coal bunker foundations extant.

No. of Masts: -

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No. of Screws: 1. The shaft tunnel is the best preserved in the fleet, and features at least 5 shaft casing mounts. The casing mounts are in excellent condition. The shaft tunnel begins 246 feet 4 inches aft the bow and is 12 feet 2 inches in length. The tunnel contains the best example of cross pinning of any site in the fleet.

Length: 258 feet 6 inches.

Beam (extreme): 46 feet 6 inches (amidships); 47 feet (at point 64 feet aft the bow).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: The afterpeak is weighted with stone, possibly concrete fragments.

Stempost: Not determined.

Sternpost: Extant.

No. Bulkheads: 4 extant foundations. The first extant bulkhead begins 64 feet aft the bow, the second at 118 feet aft the bow, the third at 163 feet, and the afterpeak bulkhead at 210 feet 4 inches aft the bow.

Rudder Post: None. No rudder discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: This site is considered to be among the best preserved wooden steamship wrecks in the study area, but owing to its position on the outer tier of hulks, exposed to frequently turbulent sea conditions, and submersion during high tide, it is one of the most difficult to access. It would serve, however, as the best candidate for further study of extant architectural features of a typical USSB wooden steamship vessel type in the study area. The hull has been in its present location since at least 1929.

Site State No.: 18CH507.

Site Field No.: 85.

Army Engineers No.: 26.

Transect: 2.

Location: 38°28.235 - 77°16.072.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel, with sides and centerline exposed. Fire trauma evident on rudder post. One of the better preserved sites in the study area. To a distance of 94 feet forward of stern the site is in excellent condition with one bulkhead foundation intact

Orientation: East-west with bow facing east, on bearing 107.5°.

Identification: *Arado*.

Origin: Built by the Lone Star Shipbuilding Co., Beaumont, Texas, for the United States Shipping Board.

Proximity: Lies in north central sector of the transect. Sites 18CH552 (*Musketo*) and 18CH504 (*Angelina*) lay off the port side, the stern of 18CH533 (*Coconino*) off the bow, and 18CH495 (*Aiken*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

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Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1. Shaft tunnel is extant.

Length: 254 feet.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: In bow and stern.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 2 foundations noted.

Rudder Post: Extant. Separated from stem by 5 feet 9 inches. Partial remains of the rudder are extant.

Gudgeon/Pintals: Extant. The upper gudgeon position, which is vacant of a gudgeon, indicates that the piece was probably burned away with an acetylene torch. The lower gudgeon is extant. Evidence of caulking is extant, indicating that it was used in mounting the lower gudgeon. The 2 gudgeon units, upper and lower, were separated by a distance of 2 feet 11 inches.

Probable Service: Cargo carrier.

Flora & Fauna: Heavy coverage by vegetation on the port side aft amidships, as well as on the forepeak. Some light growth along starboard stern side and along the centerline. Wild roses abound in the bow. Redwing blackbirds and Eastern kingfishers were noted nesting on the site. An illegal ghost net was discovered snarled in a starboard frame.

Comment: *Arado* was officially released from bond on 17 March 1928, indicating that the ship was burned down prior to that date. Hull has been in its present location since at least 1929.

Site State No.: 18CH508.

Site Field No.: 12.

Army Engineers No.: 17.

Transect: 2.

Location: 38°28.220 - 77°16.070.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Hough type.

Condition: Resting on keel. The stern hull area, port and starboard are gone. Partially submerged.

Orientation: East-west with bow facing east, on bearing 93.5°.

Identification: *Baladan*.

Origin: Built by the Kruse and Banks Shipbuilding Co., North Bend, Oregon, for the United States Shipping Board.

Proximity: Lies directly off port of 18CH561 (*Sampscott*), and starboard of 18CH547 (*Kasota*). Stern nearly touched bow of 18CH564 (*Wayhut*).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Round.

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Propulsion System: Screw.

No. of Masts: -

No. of Screws: 2.

Length: 276 feet 4 inches.

Beam (extreme): 45 feet 10 inches.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: lion cross straps.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 3 extant foundations (2 visible).

Rudder Post: None. No rudder located.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Prominent flora on bow section and in the stem, port and starboard hull, and a small amount amidships.

Comments: The forepeak area is hollow, but sediments have covered much of the bottom interior. *Baladan* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. The hulk has been in its present location since at least 1929.

Site State No.: 18CH509.

Site Field No.: 53.

Army Engineers No.: 89.

Transect: 2.

Location: 38°28.167 - 77°16.103.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged. Condition not determined.

Orientation: East-west with bow facing east, on bearing 105°.

Identification: *Banicia* [also *Banica* and *Banicaa*].

Origin: Built by the Universal Shipbuilding Co., Harris County, Texas, for the United States Shipping Board.

Proximity: Lies in the south central sector of the transect, with 18CH529 (*Cabeza*) off the port side, and 18CH562 (*Tanka*) and 18CH510 off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

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Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: *Banicia* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. Hull has been in its present location since 1929.

Site State No.: 18CH510.

Site Field No.: 52.

Army Engineers No.: 84.

Transect: 2.

Location: 38°28.160- 77°16.105.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged. Condition not determined.

Orientation: East-west with bow facing east, on bearing 102°.

Identification: *Battahatchee*.

Origin: Built by the Gildersleeve Ship Construction Co., Gildersleeve, Connecticut, for the United States Shipping Board.

Proximity: Lies in the southern sector of the transect, with 18CH509 (*Banicia*) off the port side, 18CH562 (*Tanka*) off the port stern, and 18CH560 (*Quemakoning*) off the starboard stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

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Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 2 foundations visible.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: *Battahatchee* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. Hull has been in its present location since 1929.

Site State No.: 18CH511.

Site Field No.: 37.

Army Engineers No.: 40.

Transect: 2

Location: 38°28.275 - 77°16.095.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Substantial preservation, with port stern and hull in excellent condition.

Orientation: East-west with bow facing east, on bearing 101°.

Identification: *Bayou Teche*.

Origin: Built by the Jahneck Shipbuilding Co., Tchefuncta River, Louisiana, for the United States Shipping Board.

Proximity: Lies in the northern sector of the transect, with 18CH558 (*Panga*) and 18CH567 (*Yawah*) off the starboard (north) side, and the stern of 18CH570 (Unidentified steamship) coming to within a foot of the stern of 18CH511 (*Bayou Teche*).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Boiler and engine platforms extant.

No. of Masts: -

No. of Screws: 1. Shaft tunnel extant along with 4 shaft casing platforms. Each platform is "I" shaped and measures 6 feet in length, 1 foot 11 inches in width.

Length: 264 feet 7.5 inches.

Beam (extreme): 44 feet 2 inches (40 feet 2 inches interior measure). Measurement taken 166 feet 3.5 inches aft the bow. At 63 feet from the stern, the beam was 29 feet (25 feet interior measure).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: In stern.

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Stempost: Extant. Iron strapping still in place.

Sternpost: Extant.

No. Bulkheads: 2 extant. The first is 60 feet 5 inches from the stern, and the second is 105 feet 4 inches from the stern.

Rudder Post: Extant. Distance between rudder post and stern post is 4 feet. No rudder discovered. The rudder post is tilted northward with vegetation growing from its base area.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Vegetation grows principally in the stern and at the forepeak.

Comments: The bottom of the stern stands in 5 feet of water (MLW), and the bow and stern both lie in a deep scour area. The stern stands an estimated 1 foot 6 inches higher than the bow. Onboard, usually covered by 6 inches to 2 feet of water, features such as the engine and boiler platforms are extant. The engine platform is devoid of any architecture, except a pair of channel lines cut along the starboard floor. Both the port and starboard sides feature single lines of 9-inch timbers, separated by only 6 feet 2 inches, running from the stern to the engine platform amidships. These are probably girder or sister keelsons. A total of 4 "I" shaft casing platforms, each 6 feet in length and 1 foot 11 inches wide, with waists measuring 9.5 inches, were located in the stern to midships, mounted athwart the girder keelsons. These were numbered (for survey purposes) 1 to 4, with 18CH570 (Unidentified steamship) being the sternmost. 18CH570 has the best preserved casing platform, with the remainder degenerating as the progression moves forward. The shaft line is concave in shape, with its lower boxing still extant and visible for 2.5 feet at the stern of the ship. The engine and boiler platforms are located just aft amidships and are entirely devoid of any features or fittings, except for 2 channels cut from the starboard side in the boiler platform. Investigation of the site was severely retarded by the growth of hydrilla onboard and surrounding the site. A considerable spread of wooden debris lies off the starboard stern of the vessel, possibly detritus from the upper hull as it collapsed or burned. *Bayou Teche* was officially released from bond on 12 October 1928, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH512.

Site Field No.: 90.

Army Engineers No.: 112.

Transect: 2. **Location:** 38°28.193 - 77°16.087.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 103.5°.

Identification: *Bedminster*.

Origin: Built by Morey and Thomas, Jacksonville, Florida, for the United States Shipping Board.

Proximity: Lies in central sector of the transect. Site 18CH563 (*Wakan*) lies off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

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Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 2.

Rudder Post: None. No rudder discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: The hull has been in its present location since at least 1929.

Site State No.: 18CH513

Site Field No.: 27.

Army Engineers No.: 148.

Transect: 2. **Location:** 38°28.295 - 77°16.125

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel, and partially submerged on the port side.

Orientation: East-west with bow facing east, on bearing 86°.

Identification: *Belgrade*.

Origin: Built by the Cumberland Shipbuilding Co., Portland, Maine, for the United States Shipping Board.

Proximity: Lying in the southwest sector of the transect between 18CH554 (*Nemassa*) on the port (north) side, and the piling line on the starboard (south) side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1. Shaft tunnel present.

Length: Not determined.

Beam (extreme): 46 feet.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: None.

Stempost: Extant.

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Sternpost: Extant.

No. Bulkheads: 4. The most prominent bulkhead foundation was noted 79 feet 7 inches forward of the stem.

Rudder Post: Extant. Distance between rudder post and sternpost is 7 feet. No rudder located.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Sparse vegetation noted on starboard bow and in forepeak.

Comments: The hull has been in its present location since 1929.

Site State No.: 18CH514.

Site Field No.: 46.

Army Engineers No.: 45.

Transect: 2.

Location: 38°28.253- 77°16.118.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Peninsula type.

Condition: Resting on keel. Entirely submerged. Condition not determined. Some fire trauma evident is evident.

Orientation: East-west with bow facing east, on bearing 104°.

Identification: *Bellbrook* [also given as *Bell Brook*].

Origin: Built by the Peninsula Shipbuilding Co., Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in the northern sector of the transect, with 18CH536 (*Datis*) off the port side, 18CH540 (*Flavel*) off the starboard side, the stern of 18CH552 (*Musketo*) off the bow, and the bow of 18CH524 (*Bromela*) off the stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: 10 feet in stern area.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: 1 extant, approximately 60 feet forward of stern.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Light growth.

Comments: Wreckage, possibly part of No. 46, lies off the starboard side adjacent to the hulk. The stern rests in 10 feet

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of water. *Bellbrook* was officially released from bond on 28 July 1928, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH516.

Site Field No.: 69

Army Engineers No.: 29.

Transect: 2.

Location: 38°28.254 - 77°16.155.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Pacific American type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 100.5°.

Identification: *Bobring*.

Origin: Built by Pacific American Fisheries, Bellingham, Washington, for the United States Shipping Board.

Proximity: Lies in the northwest central sector of the transect, with 18CH524 (*Bromela*) off the port, 18CH497 off the starboard, and 18CH540 (*Flavel*) off the starboard bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 2.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Not determined.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: None. Hull was found devoid of bulkhead remains or other partitions with the exception of a vertical board, 2 feet tall, running along the centerline on the keelson.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Numerous fittings, all in poor state of preservation, noted lying about. Several ceramic hexagonal shaped one-inch tiles were noted lying about amidships. A portion of the stem appears to have been torn away or sawed off. Lying off the stern substantial wooden debris was encountered on the bottom. *Bobring* was officially released from bond on 28 July 1928, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

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Site State No.: 18CH517.

Site Field No.: 92.

Army Engineers No.: 86.

Transect: 2.

Location: 38°28.192- 77°16.131.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Pacific American type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 90.5°.

Identification: *Bockonoff*.

Origin: Built by Pacific American Fisheries, Bellingham, Washington, for the United States Shipping Board.

Proximity: Lies in west central sector of the transect. Site 18CH544 (*Hoosac*) lies off the port side and 18CH503 (*Andra*) off the starboard side. The stern is wedged between 18CH576 (Unidentified steamship) off the port and 18CH575 (*Benzonia*) off the starboard. The bow nearly touches the stern of 18CH563 (*Wakan*).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 1 visible.

Rudder Post: None. No rudder discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: *Bockonoff* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH518.

Site Field No.: 17.

Army Engineers No.: 57 [?].

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Transect: 2. **Location:** 38°28.250 - 77°16.000.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Exposed, but the overgrowth of vegetation prohibited examination of interior.

Orientation: East-west with bow facing east, on bearing 94°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: The bow is on the shore immediately to the north of site 18CH591 (Marine skidway). To the port lies 18CH528 (Unidentified steamship), and to the starboard, the bow of 18CH494 (*Afrania* ?).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel is extant.

No. of Masts: -

No. of Screws: 1.

Length: 257 feet.

Beam (extreme): 46 feet 6 inches.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross straps.

Concrete: In both bow and stern areas.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: Extant. No rudder located in area.

Gudgeon/Pintals: One gudgeon extant.

Probable Service: Cargo carrier.

Flora & Fauna: The hulk is filled with soils that support a dense growth of vegetation, far too dense to permit effective survey. From the starboard midships to an estimated distance of 30 feet from the bow, however the interior is only moderately covered by vegetation, exposing some sections of the hull and the miscellaneous debris lying within. The central portion of the starboard hull is always wet and hosts innumerable wetland plants. Just forward of the stern, on the port side, hunters have erected a duck blind and have sunk PVC poles into the hull to serve as a female receptacle for moveable shelter braces.

Comments: The iron forefoot plate and part of the bow itself have peeled away from the hull and lie in the mud on the starboard side of the vessel. There is some evidence of fire trauma along the hull. Miscellaneous artifacts, including a brass firehose nozzle, were noted in the starboard midships. None were recovered. The bow itself lies only a few feet from the site No. 101 slipway. The vessel does not appear in its present position on the 1952 aerial photographs of the transect and may have been intentionally moved or simply migrated to its present location after that date to prevent becoming a hazard to navigation.

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Site State No.: 18CH519.

Site Field No.: 9.

Army Engineers No.: 16.

Transect: 2.

Location: 38°28.196 - 77°16.006.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Hull and internal features are well preserved. Exposed only at MLW.

Orientation: East-west with bow facing east, on bearing 99°.

Identification: *Boone*.

Origin: Built by the Dantzeler Shipbuilding and Drydock Co., Moss Point, Mississippi, for the United States Shipping Board.

Proximity: Bow lies 200 feet from the central beach section of transect. The bow of site 18CH521 (*Boxley*) lies off the port stern of 18CH519 (*Boone*).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel is 1 foot 10 inches wide.

No. of Masts: -

No. of Screws: 1.

Length: 258 feet 6 inches.

Beam (extreme): 46 feet. (Measurement taken 149 feet 6 inches aft the bow).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross straps.

Concrete: Both in bow and astride the shaft tunnel, 231 feet aft the bow. Concrete forms appear molded.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 4 in place with foundations partially intact.

Rudder Post: Extant. Post stands 9 feet 7 inches distance from sternpost. Rudder was not discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Small vegetation covers fore and afterpeaks, and portions of framing on both sides of hull.

Comments: The vessel forms and obstruction to passage along interior lines of the embayment. The wreck has been in its present location since at least 1929. No evidence of fire trauma.

Site State No.: 18CH520.

Site Field No.: 67.

Army Engineers No.: 116.

Transect: 2.

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Location: 38°28.222 - 77°16.152.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 86°.

Identification: *Bottineau*.

Origin: Built by Barbare Brothers, Tacoma, Washington, for the United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH498 (*Alapaha*) off the port, and 18CH522 (*Boykin*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Not determined.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Modest plant growth forward and amidships on hull.

Comments: Hull has been in its present location since at least 1929.

Site State No.: 18CH521.

Site Field No.: 105.

Army Engineers No.: 62.

Transect: 2.

Location: 38°28.242 - 77°16.150.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west, with bow facing east, on bearing 99°.

Identification: *Boxley*.

Origin: Built by the Grant, Smith, Porter Co, Portland, Oregon, for the United States Shipping Board.

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Proximity: Lies in northwest sector of the transect. Site 18CH497 (*Alanthus*) lies off the port side, 18CH550 (*Mono*) off the starboard, and the stern of 18CH496 (*Alabat*) off the starboard bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: The bottom of the wreck lies in 6 feet of water (MLW) at the stem but is articulated and well preserved.

Though the sternpost is 7 feet tall, its bottom was lodged in 13 feet of water. The rudder post and rudder could not be found, but within the hull, in 3 feet of water, about amidships on the port side, a particularly well-preserved rudder section was discovered. The rudder was lying flat and oriented in a north-south direction. The section is 8 feet long, and 3 feet wide at its widest point. Three iron straps and pins are in place. The top is broken off. *Boxley* was officially released from bond on 21 December 1928, indicating the ship was burned down prior to that date. The hull of 18CH521 (*Boxley*) has been in its present location since at least 1929.

Site State No.: 18CH522.

Site Field No.: 66.

Army Engineers No.: 118.

Transect: 2.

Location: 38°28.218 - 77°16.154.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 94.5°

Identification: *Boykin*.

Origin: Built by the Coast Shipbuilding Co, Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH520 (*Bottineau*) off the port, and 18CH535

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(*Cumberland*) and 18CH526 (*Buhisan*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Not determined.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Hull has been in its present location since at least 1929.

Site State No.: 18CH523.

Site Field No.: 39

Army Engineers No.: 48.

Transect: 2.

Location: 38°28.258 - 77°16.075.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Peninsula type.

Condition: Resting on keel. Hull is well preserved with substantial interior features extant. Usually submerged.

Orientation: East-west with bow facing east, on bearing 107.5°.

Identification: *Braeburn*.

Origin: Built by the Peninsula Shipbuilding Co., Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in the north central sector of the transect, with 18CH538 (*Dungeness*) and 18CH555 (*North Bend*) off the starboard side, 18CH567 (*Yawah*) off the port side, and the bow of 18CH501 (*Alpaco*) off the stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Boiler and engine platforms are extant.

No. of Masts: -

No. of Screws: 1.

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Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 2 visible foundations.

Rudder Post: Extant. Rudder not discovered.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Small brush grows on the stern and amidships, port and starboard, to a range of 30 feet forward of the sternpost.

Comments: Small white ceramic tiles were found spread about amidships. The tiles are similar to hexagonal bathroom floor tiles. A large metal sheet, 4 feet in diameter, probably made of lead and covered with a white oxide was found amidships. The piece was uneven in shape and perforated by several small holes and was folded under on one side. Its purpose is unknown. *Braeburn* was officially released from bond on 28 July 1928, indicating that the ship was burned down prior to that date. Hull has been in present location at least since 1936, with slight migration after 1929.

Site State No.: 18CH524.

Site Field No.: 45.

Army Engineers No.: 30.

Transect: 2.

Location: 38°28.260- 77°16.150.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Grays Harbor type.

Condition: Resting on keel, largely submerged. Site contains the best preserved rudder discovered *in situ* to date in the USSB fleet study area. The hull is also well preserved.

Orientation: East-west with bow facing east, on bearing 108°.

Identification: *Bromela*.

Origin: Built by the Grays Harbor Motorship Co., Grays Harbor, Washington, for the United States Shipping Board.

Proximity: Lies in the northern sector of the transect, with 18CH557 (*Owatama*) off the port side, 18CH516 (*Bobring*) off the starboard side, and the sterns of 18CH514 (*Bellbrook*) off the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 2.

Length: Not determined.

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Beam (extreme): Not determined.

Depth of Hold: 7 feet extant.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Extant. Rudder extant. The lower middle rudder assemblage is 7 feet 6 inches in height and 3 feet wide.

As the hull rests in 6 feet of water (MLW), where the rudder enters the bottom, more than a foot appears above the waterline. The rudder is only loosely attached to the post and its upper half slants towards the west. The stern edge of the rudder is 3 inches thick, worn by water erosion, and slopes inward towards the ship and the bottom. The iron strapping on the rudder is well preserved. The remains of the iron "L" foot and additional strapping lay just aft the port side of the rudder post in 7 feet of water. The outer edge of the rudder, which is 2 to 3 inches thick, is worn to a tapered edge by water erosion.

Gudgeon/Pintals: A single gudgeon and 2 pintals are extant. The main pintal prong has been sprung loose from the gudgeon, undoubtedly as the ship settled in position. The gudgeon strapping has slipped down along the rudder post, leaving a clear impression of the slippage incised in the wood. The lower pintal is buried beneath the mud but is still in place, although it has slipped from the shoe.

Probable Service: Cargo carrier.

Flora & Fauna: Some slight vegetation on the afterpeak and along the sides.

Comments: This vessel is the only known Grays Harbor type in the Mallows Bay shipwreck population. The hull rests in 6 feet of water at the stern. It is an important site because of the survival of the rudder assemblage in situ. *Bromela* was officially released from bond on 28 July 1928, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH525.

Site Field No.: 41.

Army Engineers No.: 98.

Transect: 2.

Location: 38°28.272 - 77°16.137.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Almost entirely submerged, but hull in substantial state of preservation.

Orientation: East-west with bow facing east, on bearing 106.5°.

Identification: *Buckhorn*.

Origin: Built by R.J. Chandler, Washington, California, for the for the United States Shipping Board.

Proximity: Lies in the northern sector of the transect, with 18CH530 (*Calala*) and 18CH586 (Barge) off the starboard side, 18CH558 (*Panga*) off the port, and the stem of 18CH501 (*Alpaco*) touching the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

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Stern Configuration: Sharp.

Propulsion System: Screw. Engine and boiler platform extant.

No. of Masts: -

No. of Screws: 1. Shaft tunnel is extant.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron and wood.

Strapping: Iron cross strapping.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 4.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Light plant growth in bow and stern. A colony of freshwater clams is in afterpeak bulkhead.

Comments: The hull rests in 6 feet of water (MLW). Investigation of site stymied by hydrilla. Site in same general location since 1929, although some minor migration has occurred.

Site State No.: 18CH526.

Site Field No.: 89.

Army Engineers No.: 104.

Transect: 2.

Location: 38°28.213 - 77°16.124.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel, entirely submerged.

Orientation: East-west with bow facing east, on bearing 93.5°.

Identification: *Buhisan*.

Origin: Built by the Traylor Shipbuilding Corp., Cornwells Heights, Pennsylvania, for the United States Shipping Board.

Proximity: Lies in central sector of the transect. Site 18CH564 (*Wayhut*) lies off the port bow, 18CH522 (*Boykin*) off the port stern, and 18CH535 (*Cumberland*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

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Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: In stern on afterpeak.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 3 foundations visible.

Rudder Post: None. No rudder discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: On 13 August 1929 bonded for burning. Hull has been in its present location since at least 1929.

Site State No.: 18CH527.

Site Field No.: 20.

Army Engineers No.: 53 [?].

Transect: 2.

Location: 38°28.265 - 77°16.030.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Exposed, filled with soil and overgrown with vegetation. Vessel is generally dry.

Orientation: Bow facing east-south-east, on bearing 106.5°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: The bow touches the starboard midships side of No. 19, and the stern intersects with the starboard side of 18CH551 (*Moosabee?*). 18CH528 (Unidentified steamship) lies off the starboard bow, and the shore off the port side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: 245 feet (between perpendiculars).

Beam (extreme): 43 feet 6 inches. (Measurement taken 109 feet 8 inches forward of the stern).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

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Strapping: Iron cross straps.

Concrete: 2 frames in bow.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 2 visible.

Rudder Post: Extant under site No. 21. Rudder not discovered.

Gudgeon/Pintals: Extant under site No. 21.

Probable Service: Cargo carrier.

Flora & Fauna: Dense vegetation covers the entire vessel.

Comments: Evidence of fire trauma on all sides. The vessel does not appear in place on the 1952 aerial photographs and was apparently towed or migrated to its present position between then and 1986.

Site State No.: 18CH528.

Site Field No.: 18.

Army Engineers No.: 56 [?]

Transect: 2.

Location: 38°28.243 - 77°16.003.

Site Class: Historic. Site r1pe: Merchant vessel (steamship).

Condition: Resting on keel. Exposed, but overgrowth of vegetation has prohibited examination of interior. Fire damage is evident all around the stern and throughout the exposed hull areas. The bow is in excellent condition, with Roman numeral plimsol numbers clearly visible on the port side bow. The forepeak bulkhead is well defined, and the engine and boiler platforms are intact.

Orientation: East-west with bow facing east, on bearing 113.5°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Bow is ashore. Site 18CH518 (Unidentified steamship) lies off starboard side, and 18CH537 (*Dertona?*) and 18CH527 (*Moosabee?*) off the port side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel extant but covered by soils.

No. of Masts: -

No. of Screws: 1.

Length: 257 feet 9 inches.

Beam (extreme): 46 feet 6 inches.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross straps.

Concrete: In the bow (2 large frames).

Stempost: Extant.

Sternpost: Extant.

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No. Bulkheads: 3 noted, but possibly 4 extant.

Rudder Post: Extant. No rudder located in area.

Gudgeon/Pintals: 2 (one above water and one below).

Probable Service: Cargo carrier.

Flora & Fauna: Dense vegetation covers the entire vessel. Here and there poulders within the hull host wetland flora and fauna. Yellow iris and false indigo are prominent species. The tracks of beaver, raccoons, and other unidentified mammals, as well as the feces of numerous animals were observed onboard. Four unidentified snakes were encountered (5/9/94).

Comments: The engine platform was noted extant amidships beneath a dense growth of vegetation. A steel cable hangs down from the starboard bow and is pinned to the bottom underwater, ostensibly to hold the ship in place. It thus seems likely that the hulk was among several vessels which may have drifted from their original anchorage and were later hauled onto the nearshore and fixed in place to prevent further migration. No. 18 does not appear in its present position on the 1952 but arrived there prior to 1986.

Site State No.: 18CH529.

Site Field No.: 54.

Army Engineers No.: 113.

Transect: 2.

Location: 38°28.171 - 77°16.112.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged. Condition not determined.

Orientation: East-west with bow facing east, on bearing 105°.

Identification: *Cabeza*.

Origin: Built by the Coast Shipbuilding Co., Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in the south central sector of the transect, with 18CH502 (*Alta*) and 18CH541 (*Folsom*) off the port side, 18CH510 (*Battahatchee*) off the starboard side, and the bow of 18CH546 (*Kangi*) nearly touching the stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

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No. Bulkheads: Evidence of at least 1 foundation appears in aerial photographs.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: An unidentified feature lies across the forepeak. Hull in present location at least since 1929.

Site State No.: 18CH530.

Site Field No.: 49.

Army Engineers No.: 32.

Transect: 2.

Location: 38°28.264 - 77°16.120.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Supple and Balm type.

Condition: Resting on keel. Entirely submerged. Condition not determined.

Orientation: East-west with bow facing east, on bearing 108°.

Identification: *Calala*.

Origin: Built by Supple and Ballin, Portland, Oregon, for the United States Shipping Board.

Proximity: Lying in the northern sector of the transect, with 18CH525 (*Buckhorn*) and 18CH501 (*Alpaco*) off the port side, 18CH536 (*Datis*) off the starboard side, the stern of 18CH538 (*Dungeness*) off the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 2 foundations extant.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Light growth along both sides of the bow.

Comments: This vessel is normally awash and very difficult to access by water. Hull has been in its present location since 1929.

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Site State No.: 18CH531.

Site Field No.: 30.

Army Engineers No.: 152.

Transect: 2

Location: 38°28.140 - 77°16.140.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Well preserved hull and deck, bulkhead foundations, shaft tunnel, and casing mounts.

Orientation: East-west with bow facing east.

Identification: *Caribou*.

Origin: Built by the St. Johns River Shipbuilding Co., South Jacksonville, Florida, for the United States Shipping Board.

Proximity: Lies in the southwest sector of the transect, with 18CH589 (Barge) off its starboard (south) side, and 18CH556 (*Nupolela*) off its port (north). 18CH577 (Unidentified steamship) lies off its starboard stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Engine and boiler platforms, and coal bunker foundations extant.

No. of Masts: -

No. of Screws: 1. Shaft tunnel extant, as are at least 3 shaft casing mounts.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Extant.

No. Bulkheads: 4.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Site includes well preserved hull replete with compartments, coal bunkers, and other internal features not extant on many other vessels in Mallows Bay. In position since 1929.

Site State No.: 18CH532.

Site Field No.: 5.

Army Engineers No.: 135.

Transect: 2.

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Location: 38°28.292 - 77°16.156.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Usually awash or submerged, and subject to occasional high energy wave action.

Orientation: Lies on an east-west orientation, with its bow on the eastern extremity, on bearing 101°.

Identification: *Casmalia*.

Origin: Built by the American Shipbuilding Co, Brunswick, Georgia, for the United States Shipping Board.

Proximity: The site lies in the northern sector of the transect, with 18CH571 (Unidentified steamship) off its port side, and 18CH579 (Unidentified steamship) off its starboard side. 18CH588 (Barge) lies off its bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: None.

No. of Screws: 1. Shaft tunnel is 1 foot 8 inches wide.

Length: 260 feet 4 inches.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross straps.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 2 foundations extant. One foundation nearest the stern stands 2 feet vertically off the floor.

Rudder Post: Extant but submerged. The iron foot is peeled away but still attached. No rudder fragments located within a 30-foot circumference of the post. Distance between rudder post and sternpost is 4 feet.

Gudgeon/Pintals: Two gudgeons with iron fastenings are in place. The remnant of a possible pintal fragment was found projecting from the mud on the bottom of the river near the rudder post.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: On 13 August 1929 the ship was bonded for burning. The hull has been in the same general location since 1929, but has been subjected to some notable migration. The bow remains stand 5 feet off the bottom, with the iron bow stem plate lying on the bottom, appearing to have been peeled back. Considerable architectural detail survives along the keelson, but was not be recorded owing to strong wave activity. The exterior stern section stands off the bottom 8 feet and is in an excellent state of preservation. Site may be viewed from the surface only at MLW. It is frequently exposed to rough sea conditions making diving on or around the wreck hazardous.

Site State No.: 18CH533.

Site Field No.: 15.

Army Engineers No.: 21.

Transect: 2.

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Location: 38°28.224 - 77°16.037.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Hough type.

Condition: Resting on keel. Exposed, with considerable debris lying scattered about the decking.

Orientation: East-west with bow facing east, on bearing 85°.

Identification: *Coconino*.

Origin: Built by the Kruse and Banks Shipbuilding Co., North Bend, Oregon, for the United States Shipping Board.

Proximity: Lies approximately 125 yards from north central beach area of transect, with its stern nearly touching port bow of 18CH495 (*Aiken*). 18CH504 (*Angelina*) lies off port stem area, and 18CH539 (*Fernandina*) off starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Round.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 2.

Length: 267 feet.

Beam (extreme): 46 feet (measurement taken 135 feet 4 inches forward of the stern).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross straps and band straps.

Concrete: None.

Stempost: Not determined.

Sternpost: Extant.

No. Bulkheads: 3.

Rudder Post: None. No rudder located.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Vegetation covers the port hull and some minor growth has taken root aft amidships on the starboard side. One cedar tree growing from the port hull, with its roots embedded in the hull itself, is collapsing into the water, tearing the wood apart.

Comment: At 113 feet forward of the stem, a square structure with firebrick was observed. In this sector, an iron box, attached to the hull itself, was also observed not far from a threaded standpipe still in position. There is no evidence of fire trauma. *Coconino* was officially released from bond on 28 July 1928, indicating that the ship was burned down prior to that date. Site in present location at least since 1929.

Site State No.: 18CH534.

Site Field No.: 28.

Army Engineers No.: 125.

Transect: 2.

Location: 38°28.138 - 77°16.090.

Site Class: Historic.

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Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel, and largely submerged on the port side.

Orientation: East-west with bow facing east, on bearing 70°.

Identification: *Congaree*.

Origin: Built by The Foundation Co, Passaic River, New Jersey for the United States Shipping Board.

Proximity: Lying in the southwest sector of the transect, with 18CH543 (*Guilford*) off its starboard (south side), and 18CH589 (Barge) off its stem. 18CH510 (*Battachatchee*) lies some distance off the port (north) side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1. Shaft tunnel extant.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Starboard aft hull wall and section of stern is the only part visible at MLW. On 13 August 1929 *Congaree* was substituted for *Waneyanda* in a bond for burning. The ship was among those subjected to dynamiting during the period of wildcat scrap operations at Mallows Bay. Hull has been in its present location since 1929.

Site State No.: 18CH535.

Site Field No.: 136.

Army Engineers No.: 32.

Transect: 2.

Location: 38°28.268 - 77°16.090.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 102°.

Identification: *Cumberland*.

Origin: Built by the Cumberland Shipbuilding Co, Portland, Maine, for the United States Shipping Board.

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Proximity: Lies in Tier 4, in the northern sector of the transect. Site 18CH511 (*Bayou Teche*) lies off the port, 18CH501 (*Alpaco*) and 18CH523 (*Braeburn*) off the starboard, and 18CH558 (*Panga*) off the stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Boiler and engine platforms, and shaft tunnel extant, as are 4 shaft casing platforms.

No. of Masts: -

No. of Screws: 1.

Length: Not determined. Width: Not determined. Thickness: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Extant in bow.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 2 visible.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Small growth along both port and starboard sides and in afterpeak area.

Comment: *Cumberland* was officially released from bond on 12 October 1928, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH536.

Site Field No.: 47.

Army Engineers No.: 44.

Transect: 2.

Location: 38°28.257 - 77°16.115.

Site Class: Historic.

Site Type: Merchant vessel (steamship) Ferris type.

Condition: Resting on keel. Entirely submerged. Condition not determined.

Orientation: East-west with bow facing east, on bearing 106°.

Identification: *Datis*.

Origin: Built by the Sommarstrom Shipbuilding Co., Columbia City, Oregon, for the United States Shipping Board.

Proximity: Lies in the northern sector of the transect, with 18CH530 (*Calala*) and 18CH538 (*Dungeness*) off the port side, 18CH514 (*Bellbrook*) off the starboard side, and the bow of 18CH557 (*Owatama*) off the stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

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Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: Extant. Rudder not discovered.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Light growth along the sides and on bow and stern.

Comments: Keelson centerline exposed. Portion of starboard side forward of midships is gone. *Datis* was officially released from bond on 12 October 1928, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH537.

Site Field No.: 19.

Army Engineers No.: 55 [?].

Transect: 2.

Location: 38°28.264 - 77°16.015.

Site Class: Historic. Site type: Merchant vessel (steamship), Supple and Ballin type [?].

Condition: Resting on keel. Exposed, but overgrown of vegetation prohibited examination of interior.

Orientation: South-north, with bow facing south, on bearing 136.5°.

Identification: *Dertona* [?].

Origin: Built by Supple and Ballin, Portland, Oregon, for the United States Shipping Board.

Proximity: The site lies roughly parallel with the north central shoreline of the transect. The bow is separated from the shore by a narrow belt of water, but the stern is aground on the beach, facing the bow of 18CH551 (*Moosabee?*) which is ashore a short distance to the north at the bow. 18CH527 (Unidentified steamship) lies off the starboard side, with its stern touching forward of the midships

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: 278 feet 4 inches.

Beam (extreme): 44 feet 5 inches.

Depth of Hold: Not determined.

Draft: Not determined.

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Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: In the bow (2 large concrete frames - the largest encountered amidst the fleet) still held in place by wood frames and planks.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: At least 2 foundations are partially visible.

Rudder Post: Extant. The rudder post stands 8 feet 3 inches away from the sternpost. Approximately 8 inches of the rudder itself is visible above the waterline at MLW.

Gudgeon/Pintals: Partial assemblage is intact.

Probable Service: Cargo carrier.

Flora & Fauna: Dense vegetation covers the entire vessel. Here and there poulders within the hull host wetland flora and fauna.

Comments: The bow section of the vessel is among the most dramatic and architecturally valuable for interpretation of any in the fleet. Although densely covered by plants, trees, and vines, the hull clearly shows fire trauma, which has exposed planking and frame patterning. At various points in the forward area, the hull stands 6 feet or more above the waterline. The concrete frames in the bow, the most massive in the fleet, provided support for the hull, which is doubled planked on the outer-hull in herringbone fashion. The keelson and sister keelsons are 4 feet in width. Two pair of intact knees are held in place by nuts and bolts, with each knee 6 inches wide, and with each pair spaced 18 inches apart. Each pair of knees are 20 feet 8 inches apart from the next pair. Melted iron sheets, reduced by intense heat, were found in several locations aboard, occasionally even melted into the woodwork. A single 25-foot-long steel cable was found onboard 140 feet forward of the stern on the starboard side. *Dertona* was officially released from bond on 13 July 1926, indicating that the ship was burned down prior to that date. No. 19 does not appear in its present position on the 1952 aerial photographs of the transect and apparently was towed or migrated to its present location from its former position to the west between 1952 and 1986.

Site State No.: 18CH538.

Site Field No.: 81.

Army Engineers No.: 47.

Transect: 2.

Location: 38°28.257 - 77°16.090.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Usually flooded, with sides and centerline exposed.

Orientation: East-west with bow facing east, on bearing 96°.

Identification: *Dungeness*.

Origin: Built by the Seaborn Shipyards Co., Seattle, Washington, for the United States Shipping Board.

Proximity: Sites 18CH501 (*Alpaco*) and 18CH523 (*Braeburn*) lay off the port side, the bow of 18CH530 (*Calala*) off the stern, 18CH536 (*Datis*) off the starboard stern, 18CH552 (*Musketo*) off the starboard side, and the stern of 18CH555 (*North bend*) off the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

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Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Light vegetation on sides amidships and on stern. A 20-foot-tall tree grows from the forepeak.

Comment: The bow stands off the bottom at least 6 feet. *Dungeness* was officially released from bond on 28 October 1928, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH539.

Site Field No.: 10.

Army Engineers No.: 94.

Transect: 2.

Location: 38°28.202 - 77°16.040.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Well preserved hull and internal features. Exposed at MLW.

Orientation: East-west with bow facing east, on bearing 98°.

Identification: *Fernandina*.

Origin: Built by the U.S. Maritime Corporation, Brunswick, Georgia, for the United States Shipping Board.

Proximity: Bow lies 460 feet from central beach section of transect. The bow of site 18CH539 lies off the port stern of 18CH519 (*Boone*). The bow of site 18CH561 (*Swampscott*) lies off the port stern of 18CH539.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel is extant.

No. of Masts: -

No. of Screws: 1.

Length: 256 feet.

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Beam (extreme): 46 feet.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross straps.

Concrete: In both bow and astride the shaft tunnel.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 1 main and 1 forepeak.

Rudder Post: Extant. The iron foot is extant, but no rudder was located.

Gudgeon/Pintals: A single gudgeon is extant.

Probable Service: Cargo carrier.

Flora & Fauna: Small vegetation covers forepeak and afterpeak, and portions of framing on the port side.

Comments: *Fernandina* was officially released from bond on 21 December 1928, indicating that the ship was burned down prior to that date. Site has been in its present location at least since August 1929.

Site State No.: 18CH540.

Site Field No.: 72.

Army Engineers No.: 24.

Transect: 2.

Location: 38°28.247 - 77°16.127.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Hough type.

Condition: Resting on keel. Partially submerged.

Orientation: East-west with bow facing east, on bearing 83°.

Identification: *Flavel*.

Origin: Built by the McEachern Ship Co., Astoria, Oregon, for the United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH514 (*Bellbrook*) off the port, and 18CH521 (*Boxley*) and 18CH496 (*Alabat*) off the starboard.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 2.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

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Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 2 visible.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Ceiling planks are visible at MLW in forward area. *Flavel* was officially released from bond on 28 July 1928, indicating that the ship was burned down prior to that date. Hull has been in its present location since 1929.

Site State No.: 18CH541.

Site Field No.: 134.

Army Engineers No.: 111.

Transect: 2.

Location: 38°28.181 - 77°16.122.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Partially submerged.

Orientation: East-west with bow facing east, on bearing 91°.

Identification: *Folsom*.

Origin: Built by The Foundation Co., Passaic River, New Jersey, for the United States Shipping Board.

Proximity: Lies in Tier 5, in the west central sector of the transect. Site 18CH503 (*Andra*) lies off the port, 18CH502 (*Alta*) off the starboard bow, 18CH529 (*Cabeza*) and 18CH546 (*Kangi*) off the starboard, and 18CH574 (Unidentified steamer) off the port stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined. Width: Not determined. Thickness: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: None visible.

Rudder Post: None.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

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Flora & Fauna: A few small plants grow along the starboard wall.

Comment: The hull has been in its present location since at least 1929.

Site State No.: 18CH542.

Site Field No.: 14.

Army Engineers No.: 67.

Transect: 2.

Location: 38°28.225 - 77°16.079.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. One of the better preserved hulls in the Mallows wooden steamship fleet.

Orientation: East-west with bow facing east, on bearing 90°.

Identification: *Fort Stevens*.

Origin: Built by Grant, Smith, Porter Co., Portland, Oregon, for the United States Shipping Board.

Proximity: Lies approximately 225 yards from central beach area of transect, and off the port of 18CH565 (*Wihaha*) off bow of 18CH566 (*Woyaca*), and off starboard side of 18CH494 (*Afrania* ?).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Round.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 2?

Length: 269 feet 5 inches.

Beam (extreme): 44 feet 6 inches. (Measurement taken 192 forward of stern).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross straps and band straps.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 3. A bulkhead on the starboard side, 73 feet forward of the stern, is still standing with a passageway through it still intact.

Rudder Post: None. No rudder located.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Heavy vegetation covers the sides, particularly around the iron strapping, in the bow and stern, and along centerline bulkhead. A large tree grows from the bow.

Comments: This site contains one of the best preserved interior segments of lower deck architecture of any in the study area. The decking in the forepeak and some in the afterpeak areas, to their bulkheads, are intact. There are signs of fire trauma in the bow. Ceramic tile fragments were noted lying on the deck 120 feet forward of the stern. A half dozen small, poured concrete blocks with holes running through them, and Emergency Fleet Corporation imprints on

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them also lie scattered about, primarily against the starboard side. Concentrations were noted at 26 feet, 48 feet, 58 feet, and 69 feet forward of the stern. One concrete block was briefly removed for examination from a position 58 feet forward of the stern and later returned. At 73 feet forward of the stern, in a bulkhead on the starboard side, the lower section of a passageway with frames is still partially intact. At 180 feet forward of the stern, a possible boiler fragment and several iron stanchions were encountered. The twin-engine platforms and boiler platform are in excellent condition but were not measured. The lower sections of the fore and afterpeaks are intact. *Fort Stevens* was officially released from bond on 12 October 1928, indicating that the ship was burned down prior to that date. The hull drifted from its 1929 grounding location, to the west to its present location, sometime between 1952 and 1986,

Site State No.: 18CH543.

Site Field No.: 108.

Army Engineers No.: 137.

Transect: 2.

Location: 38°28.132 - 77°16.087.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Well preserved hull and interior features extant, although partially flooded.

Orientation: East-west, with bow facing east, on bearing 79°.

Identification: *Guilford*.

Origin: Built by the Maryland Shipbuilding Co., Sollers Point, Maryland, for the United States Shipping Board.

Proximity: Lies in southernmost sector, transect 2. Site 18CH534 (*Congaree*) lies off the port side, 18CH554 (*Nemassa*) off the starboard.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Engine and boiler platform are extant.

No. of Masts: -

No. of Screws: 1. Four shaft casing platforms extant.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 2 foundations visible.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Light vegetation of bow and stern.

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Comment: *Guilford* is the only known Maryland-built USSB hull extant in Mallows Bay. The hull has been in its present location since at least 1929.

Site State No.: 18CH544.

Site Field No.: 64.

Army Engineers No.: 87.

Transect: 2.

Location: 38°28.196 - 77°16.132.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Entirely submerged.

Orientation: East-west with bow facing east, on bearing 99.5°.

Identification: *Hoosac*.

Origin: Built by the Tampa Dock Co., Tampa, Florida, for the United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH553 (*Namecki*) and 18CH500 (*Allison*) off the port, and 18CH576 (Unidentified steamship) and 18CH517 (*Bockonoff*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: *Hoosac* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. Hull has been in its present location since at least August 1929.

Site State No.: 18CH545.

Site Field No.: 109.

Army Engineers No.: None.

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Transect: 2.

Location: 38°28.103 - 77°16.110.

Site Class: Historic.

Site Type: Merchant vessel (schooner).

Condition: Resting on keel. Well preserved hull. No decking. Internal area contains miscellaneous debris.

Orientation: East-west with bow facing east, on a bearing 95°.

Identification: *Ida S. Dow*.

Origin: Built in 1918 by the Atlantic Coast Company, Thomaston, Maine.

Proximity: Lies in southernmost sector, Transect 2. Site 18CH545 lay with 18CH569 (Unidentified steamship) and 18CH547 (*Kasota*) off port, and 18CH492 (*Accomac*) and 18CH573 (Unidentified steamship) off the starboard.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Square.

Propulsion System: Sails.

No. of Masts: 4.

No. of Screws: None.

Length: 215 feet extant.

Beam (extreme): 40 feet.

Depth of Hold: 6 feet of the original 19 feet 8 inches is extant.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: Extant but disarticulated.

Sternpost: Extant.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier. Last employed as a barracks ship for industrial shipbreaking personnel.

Flora & Fauna: None.

Comment: *Ida S. Dow* was a wooden cargo schooner of 1,411 gross tons, 1,280 net tons, and 225 feet in length. This merchantman was one of the last of the classic 4-masters to be constructed. The ship's port of registry was Boston, Massachusetts, and then Bath, Maine. In 1931 its owner was Cromwell & Thurlow, [and] William F. Plummer, and her master was R.C. Rawding. The ship managed to survive World War I and the subsequent "great 1920 tie-up" of merchant freight haulers, the ship was overtaken by misfortune on 30 November 1931, when it was damaged in a collision with the German steamship *Herman Frasch*. The injured schooner was towed stern first into Hampton Roads and then hulked and abandoned at Newport News, Virginia. In the spring of 1934, the hulk was acquired by scrap salvors operating at Mallows Bay, towed up to the embayment, and set up as a floating dormitory for wreckers. The ship was anchored to the southwest of the southern end of the Mallows Bay grounding area. Sometime prior to 1 September 1936, the leaking hulk, no longer serviceable as a barracks ship, was hauled a short distance in from its anchorage and grounded squarely off the southern end of the main grounding area, filled with mud and sunk in place. In April 1940 the hulk was registered as abandoned. Between 1936 and 1943, the hull apparently migrated several

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score feet westward to the location it now occupies. The hulk has suffered from fire trauma, and a portion of the stern is gone. A break in the hull was noted on the starboard side at 75 feet aft the bow, although there is some strong hull integrity remaining. Heavy silts fill the interior of most of the hull [Tilp 1978: 88; Morris 1975: 136].

Site State No.: 18CH546.

Site Field No.: 55.

Army Engineers No.: 115.

Transect: 2.

Location: 38°28.177 - 77°16.144, Ferris type.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Largely submerged. Condition not determined.

Orientation: East-west with bow facing east, on bearing 94.5°.

Identification: *Kangi*.

Origin: Built by G.M. Standifer, Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in the south central sector of the transect, with 18CH574 (Unidentified steamship) and 18CH541 (*Folsom*) off the port side, 18CH562 (*Tanka*) off the starboard side, and the stern of 18CH529 (*Cabeza*) nearly touching the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 2 visible.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: On tree on port midships side.

Comments: Possible evidence of portside passageway bulkhead and 2 passage portals. Hull in present location at least since 1929.

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Site State No.: 18CH547.

Site Field No.: 56.

Army Engineers No.: Unknown.

Transect: 2.

Location: 38°28.183 - 77°16.152.

Site Class: Historic.

Site Type: Merchant vessel (steamship), possibly Ferris type.

Condition: Resting on keel. Largely submerged.

Orientation: East-west with bow facing east, on bearing 91°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH575 (Unidentified steamship) off the port side, 18CH546 (*Kangi*) off the starboard side, and the sterns of 18CH503 (*Andra*) and 18CH541 (*Folsom*) sandwiching in the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 4.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Stem lies in 7 feet of water (MLW). A single pole stands vertically exposed almost squarely amidships in the centerline. Hulk has been in present position since at least 1943.

Site State No.: 18CH547.

Site Field No.: 129.

Army Engineers No.: 150.

Transect: 2.

Location: 3827.112 - 7716.090.

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Site Class: Historic.

Site Type: Merchant vessel (steamship), Hough type.

Condition: Resting on keel. Partially submerged.

Orientation: East-west with bow facing east, on bearing 91°.

Identification: *Kasota*.

Origin: Built by the Grant, Smith, Porter Co., Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in southernmost sector of the transect. Site 18CH513 (*Belgrade*) lies off the port side, 18CH569 (Unidentified steamship) off the stern, and 18CH545 (*Ida S. Dow*) off the starboard stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Round.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 2.

Length: 275 feet. Width: 46 feet. Thickness: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 1 foundation visible.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: A small tree grows from the forepeak area.

Comment: This hull has been in its present location since at least 1929.

Site State No.: 18CH548.

Site Field No.: 93.

Army Engineers No.: 13.

Transect: 2. **Location:** 38°28.180 – 77°16.067.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Hough type.

Condition: Resting on keel. Well preserved deck planking and bulkhead foundations. Stands exposed in 6 feet 6 inches of water (MLW). Stem injured, and port hull twisted and partially disarticulated.

Orientation: East-west with bow facing east, on bearing 101°.

Identification: *Kickapoo*.

Origin: Built by the Kruse and Banks Shipbuilding Co., North Bend, Oregon, for the United States Shipping Board.

Proximity: Lies in east central sector of the transect. Site 18CH549 (*Marshfield*) lay off the starboard side, 18CH512 (*Bedminster*) and 18CH563 (*Wakan*) off port stem, and 18CH502 (*Alta*) off the starboard stem.

Hull Remains: Wood, plank on frame.

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Hull Configuration: Keel.

Stern Configuration: Round.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 2.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 4.

Rudder Post: None. No rudder discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Light vegetation along starboard hull, amidships, and along stern centerline.

Comment: A submerged debris pile lies off the stern. *Kickapoo* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH549.

Site Field No.: 94.

Army Engineers No.: 12.

Transect: 2.

Location: 38°28.176 - 77°16.058.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Hough type.

Condition: Resting on keel. Well preserved site, with deck planking and bulkhead foundations in good shape. Stands in 6 feet 6 inches of water (MLW). Stern injured.

Orientation: East-west with bow facing east, on bearing 100°.

Identification: *Marshfield*.

Origin: Built by the Coos Bay Shipbuilding Co., Marshfield, Oregon, for the United States Shipping Board.

Proximity: Lies in east central sector of the transect. Site 18CH548 (*Kickapoo*) lay off the port side, 18CH499 (*Alcis*) off the starboard side, and 18CH563 (*Wakan*) and 18CH502 (*Alta*) off the stem.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Round.

Propulsion System: Screw.

No. of Masts: -

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No. of Screws: 2.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: 6.5 feet extant.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 5 foundations. The third bulkhead is extremely well preserved and partially intact, with a passageway through it on both sides of the keelson line.

Rudder Post: None. No rudder discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Light vegetation along both port and starboard hulls, amidships, and along stern centerline.

Comment: Examination of the hull indicates the bow to be in an excellent state of preservation, with architecture, nails, pins, and other fittings still articulated. A total of 6 planks, each 1 foot wide and 1 inch thick, formed the visible exterior hull wall from surface to bottom. Examination of the port side, from the bow to the third bulkhead area, revealed the bulkheads to be stabilized by large wooden knees, extending from the ceiling planks to the sides, sandwiching the bulkheads between them. The stern is broken off on both sides of the sternpost. The port side stern was twisted off to the west. The keelson and fragments of limber boards, or possibly the sister keelson sections, were turned up and obviously broken off. The broken starboard side timbers were also turned to the west. *Marshfield* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least August 1929.

Site State No.: 18CH550.

Site Field No.: 106.

Army Engineers No.: 99.

Transect: 2.

Location: 38°28.235 - 77°16.160.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Hough type.

Condition: Resting on keel. Entirely submerged except for forepeak.

Orientation: East-west with bow facing east, on bearing 95°.

Identification: *Mono*.

Origin: Built by the Fulton Shipbuilding Co, Washington, California, for the United States Shipping Board.

Proximity: Lies in northwest sector of the transect. Site 18CH521 (*Boxley*) lies off the port side, 18CH498 (*Alapaha*) off the starboard, and the stem of 18CH496 (*Alabat*) off the port bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Round.

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Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 2 foundations visible.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: This hull has been in its present location since at least 1929.

Site State No.: 18CH551.

Site Field No.: 21.

Army Engineers No.: 53 [?]

Transect: 2. **Location:** 38°28.270 - 77°16.043.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Exposed, filled with soil and overgrown with vegetation. Vessel is generally dry, although small pools have formed midships.

Orientation: Southeast-northwest, with bow facing northeast, on bearing 46.5°.

Identification: *Moosabee* [?].

Origin: Built by the G.M. Standifer Construction Corp., Vancouver, Washington, for the United States Shipping Board.

Proximity: The bow is aground at the base of a bluff. 18CH584 (Barge) lies off the port midships, and 18CH527 (Unidentified steamship)'s stern lies under the starboard midships.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel extant and protrudes from the stern.

No. of Masts: -

No. of Screws: 1.

Length: 267 feet 7 inches.

Beam (extreme): 44 feet (measurement taken 115 feet 10 inches forward of the stern).

Depth of Hold: Not determined.

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Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None noted.

Concrete: Concrete chunks were noted near stern but not visible from water.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 2 visible.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Dense vegetation covers the entire vessel.

Comments: The bow is in an excellent state of preservation, and lies only 3 feet from the bluff shoreline. It stands 6 feet above the waterline. Extensive evidence of fire damage throughout forward half of vessel. *Moosabee* was officially released from bond on 17 March 1928, indicating that the ship was burned down prior to that date. No. 21 does not appear in its current location on the 1952 aerial photographs and apparently was towed or migrated there between then and 1986, after having experienced some migration from its 1929 grounding site.

Site State No.: 18CH552.

Site Field No.: 84.

Army Engineers No.: 28.

Transect: 2 **Location:** 38°28.243 - 77°16.085.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Hough type.

Condition: Resting on keel, with sides and centerline exposed. Appears lying with slight tilt to starboard. Stern appears to have been broken off.

Orientation: East-west with bow facing east, on bearing 109°.

Identification: *Musketo*.

Origin: Built by the Sommarstrom Shipbuilding Co., Columbia City, Oregon, for the United States Shipping Board.

Proximity: Lies in north central sector of the transect. Sites 18CH555 (*North Bend*) and 18CH536 (*Dungeness*) lay off the port side, the bow of 18CH514 (*Bellbrook*) off the stem, 18CH507 (*Arado*) off the starboard side, and the stem of 18CH504 (*Angelina*) off the port bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Screw.

Propulsion System: -

No. of Masts: Not determined.

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

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Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Extant, Remains stand 4 feet out of the water (MLW).

No. Bulkheads: 1 foundation noted.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Light vegetation on the port side and on the forward starboard wall. Stempost is capped by a small tree.

Comment: *Musketo* was officially released from bond on 28 July 1928, indicating that the ship was burned down prior to that date. Hull has been in its present location since at least 1929.

Site State No.: 18CH553.

Site Field No.: 65.

Army Engineers No.: 126.

Transect: 2.

Location: 38°28.210 - 77°16.139.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 93°.

Identification: *Namecki*.

Origin: Built by the Tampa Dock Co., Tampa, Florida, for the United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH535 (*Cumberland*) off the port, and 18CH500 (*Allison*) and 18CH544 (*Hoosac*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

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Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None

Comments: Hull has been in its present location since at least 1929.

Site State No.: 18CH554.

Site Field No.: 26.

Army Engineers No.: 139.

Transect: 2.

Location: 38°28.127 - 77°16.082.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel, submerged. Hull stands 6 feet off the bottom.

Orientation: East-west with bow facing east, on bearing 78°.

Identification: *Nemassa*.

Origin: Built by the Freeport Shipbuilding Co., South Freeport, Maine, for the United States Shipping Board.

Proximity: Lying in the southwest sector of the transect, between 18CH543 (*Guilford*) on the port (north) side, and 18CH504 (*Angelina*) on the starboard (south) side. Stern faces bow of site 18CH569 (Unidentified steamship).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1. Shaft tunnel extant. Tunnel is 1 foot 8 inches wide and begins 244 feet 6 inches aft bow.

Length: 258 feet.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 3 extant foundations.

Rudder Post: None. No rudder located.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Some small vegetation noted on starboard hull at MLW.

Comments: On 13 August 1929 *Nemassa* was bonded for burning. Hull has been in its present location since 1929.

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Site State No.: 18CH555.

Site Field No.: 82.

Army Engineers No.: 50.

Transect: 2.

Location: 38°28.250 - 77°16.055.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Hough type.

Condition: Resting on keel. Usually flooded, with sides and centerline exposed.

Orientation: East-west, with bow facing east, on bearing 102.5°.

Identification: *North Bend*.

Origin: Built by the Kruse and Banks Shipbuilding Co., North Bend, Oregon, for the United States Shipping Board.

Proximity: Site 18CH523 (*Braeburn*) lies off the port stern, the bow of 18CH538 (*Dungeness*) is off the stem, and 18CH504 (*Angelina*) and 18CH552 (*Musketo*) lay off the starboard.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Round.

Propulsion System: Screw. Engine platform is 4 feet 6 inches wide. Boiler platform is 3 feet in diameter.

No. of Masts: -

No. of Screws: 2.

Length: 267 feet.

Beam (extreme): 46 feet 6 inches.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: None.

Stempost: Extant.

Sternpost: Exant.

No. Bulkheads: 3. The bulkhead foundations stand 3 feet off the deck, 1 foot above the water at MLW.

Rudder Post: None. No rudder discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Light vegetation on walls amidships and on stern. Trees grow from the bow and stem (1997), with an evergreen standing on the forepeak.

Comment: The *North Bend*, named after a town in Oregon, is the earliest USSB wooden steamer completed and certified during the Emergency Fleet program. It was originally described as a Ferris type vessel of 240 feet in length, and 4,000 deadweight tons, built in 120 days by the firm of Kruse and Banks, of Coos Bay, Oregon. The dimensions of site 18CH555, however, do not correspond with those of the hull identified by the War Department in 1929 as that of *North Bend*. Since the hull was among those that did not migrate at all from 1929 to the present and is most certainly the same as recorded by the Army Engineers, the size difference poses some question about the correctness of the 1929 chart, or possible errors in the archaeological data. However, numerous discrepancies in contract ordered dimensions

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and completed dimensions have been documented throughout the shipbuilding program, and as the dimensions and layout of site 18CH555 correspond to those of a typical Hough type vessel, and its location is documented twice (1929 and 1936) by the War Department, it is believed that the site is probably one and the same as *North Bend*.

North Bend's career, like most USSB wooden steamers, was short. On 24 May 1918, after outfitting and undergoing sea trials, the ship was ready for delivery and sea duty. Immediately upon delivery, she was placed in the trade between the Pacific Coast and the Hawaiian Islands, carrying general merchandise outwards and sugar inwards. John A. Donald, Acting Director of the Emergency Fleet Corporation, noted in a 23 November 1918 report to U.S. Senator William M. Calder: "I might add that sugar is considered by underwriters to be an exceedingly perishable cargo, and, as far as we are advised here, she has carried the sugar very successfully." [Cost of Ship Construction, 5].

The precise date at which the ship was brought to the Potomac River is unknown, but it was approved for release from bond, meaning that it had been burned down to the waterline, on 15 June 1928, and officially released on 28 July 1928. The hull has been in its present location at least since 1929.

The stem of the wreck appears somewhat damaged and canted above the waterline along a break line. These broken portions on the starboard side stand approximately 1 foot above MLW. The site features a waterline rub rail on the hull, the only one documented to date in the fleet. The boiler platform is 4 foot 5 inches wide and tapers to 3 feet.

Site State No.: 18CH556.

Site Field No.: 31.

Army Engineers No.: 151.

Transect: 2.

Location: 38°28.145 - 77°16.129.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Well preserved hull and deck features, bulkhead foundations, shaft tunnel, and casing mounts.

Orientation: East-west with bow facing east, on bearing 80.5°.

Identification: *Nupolela*.

Origin: Built by the Grant, Smith, Porter Co., Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in the southwest sector of the transect, with 18CH531 (*Caribou*) off its starboard (south) side, and 18CH506 (*Aowa*) off its port (north).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Engine and boiler platforms, and coal bunker foundations extant.

No. of Masts: -

No. of Screws: 1. Shaft tunnel extant, as are at least 3 shaft casing mounts.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

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Strapping: Iron cross strapping.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Extant.

No. Bulkheads: 2 extant.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Some small vegetation grows from the port afterpeak wall.

Comments: *Aowa* was not boarded, but viewed as a well preserved site replete with compartments, coal bunkers, and other internal features not extant on many other vessels in Mallows Bay. The hull has been in its present location since at least 1929.

Site State No.: 18CH557.

Site Field No.: 44.

Army Engineers No.: 31.

Transect: 2.

Location: 38°28.265- 77°16.145.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged. Condition not determined.

Orientation: East-west with bow facing east, on bearing 107.5°.

Identification: *Owatama*.

Origin: Built by the Wilson Shipbuilding Co., Astoria, Oregon, for the United States Shipping Board.

Proximity: Lies in the northern sector of the transect, with 18CH525 (*Buckhorn*) and 18CH586 (Barge) off the port side, 18CH524 (*Bromela*) off the starboard side, and the sterns of 18CH530 (*Calala*) and 18CH536 (*Datis*) off the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

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Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: The hull rests in 6 to 8 feet of water (MLW). Investigation of the site stymied by sea conditions. *Owatama* was officially released from bond on 21 December 1928, indicating that the ship was burned down prior to that date. Wreck has been in its present location since at least 1943.

Site State No.: 18CH558.

Site Field No.: 40.

Army Engineers No.: 33.

Transect: 2.

Location: 38°28.273 - 77°16.122.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Almost entirely submerged, but hull in substantial state of preservation.

Orientation: East-west with bow facing east, on bearing 100.5°.

Identification: *Panga*.

Origin: Built by the Dirks-Blodgett Shipbuilding Co., Pascagoula, Mississippi, for the United States Shipping Board.

Proximity: Lies in the northern sector of the transect, with port side approximately 125 yards from the nearshore lip of the embayment. 18CH525 (*Buckhorn*) and 18CH501 (*Alpaco*) lay off the starboard side, the stern of 18CH588 (Barge) off the bow, and 18CH511 (*Bayou Teche*) off the port. The bow of 18CH579 (Unidentified steamship) lies off the stern.

Hull Remains: Wood, plank on frame. Hull planking 20 feet forward of the stern measures 1 foot in width.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel extant.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: 6 feet. (Measured 20 feet from stern).

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron and wood.

Strapping: Iron cross strapping.

Concrete: Small frames noted in stern.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Plant growth along frames, port and starboard, from aft amidships to stem and along centerline.

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Comments: The hull stands in 6 feet of water (MLW). *Panga* was officially released from bond on 12 October 1928, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least August 1929.

Site State No.: 18CH559.

Site Field No.: 33.

Army Engineers No.: 61.

Transect: 2.

Location: 38°28.140 - 77°16.138.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferns type.

Condition: Resting on keel. Usually submerged. Condition unknown.

Orientation: East-west with bow facing east, on bearing 91.50.

Identification: *Quapaw*.

Origin: Built by McBride and Law, Beaumont, Texas, for the United States Shipping Board.

Proximity: Lies in the southwest sector of the transect, with 18CH506 (*Aowa*) off its starboard side, and 18CH560 (*Quemakoning*) off its port.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Engine platform is 26 feet in length, and begins 163 feet forward of stern and ends at a point 137 feet forward of stern.

No. of Masts: -

No. of Screws: 1.

Length: 258 feet.

Beam (extreme): 46 feet.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: None in bow, but forepeak is filled with stone, possibly broken concrete, to 20 feet aft stempost.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 4. The first bulkhead begins 210 feet 6 inches forward of the stern, the second begins 163 feet forward of stern, the third begins 199 feet forward of stern, and the 4th is 66 feet forward of stern.

Rudder Post: None. No rudder located.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Numerous fitting details were encountered during survey at MLW. An intake seacock was noted 223 feet forward of the stem, and several prominent iron features were encountered at points 204 feet 6 inches, 195 feet 6 inches, and 100 feet forward of the stern on the port side. Numerous unidentified architectural features were also

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encountered on the port side at 150 feet and 111 feet 7 inches forward of the stern. *Quapaw* was officially released from bond on 12 October 1928, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH560.

Site Field No.: 34.

Army Engineers No.: 123.

Transect: 2.

Location: 38°28.162 - 77°16.143.

Site Class: Historic.

Site Type: Merchant vessel (steamship), McClelland type.

Condition: Resting on keel and largely submerged. Contains the largest molded poured concrete building feature in the fleet, which is rapidly deteriorating.

Orientation: East-west with bow facing east, on bearing 91.5°.

Identification: *Quemakoning*.

Origin: Built by the Beaumont Shipbuilding and Drydock Co., Beaumont, Texas, for the United States Shipping Board.

Proximity: Lies in the southwest sector of the transect, with 18CH559 (*Panga*) off its starboard (south) side, and 18CH562 (*Tanka*) off its port (north).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: 256 feet 8 inches (between perpendiculars).

Beam (extreme): 46 feet. (Measured at 209 feet aft the bow).

Depth of Hold: Maximum of 7 feet in stern area extant.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: A massive block of poured concrete, formed and braced in timber casings, occupies much of the forepeak area of the ship, but none noted in stem, although rubble fragments are found in the aft hold area.

Stempost: Extant but submerged at MLW.

Sternpost: Not determined.

No. Bulkheads: 4 extant. From bow to the forepeak bulkhead is 16 feet 11 inches. The second bulkhead is at 118 feet aft the bow and is evidenced by a line of iron pins running along the top of the foundation, which is 6 inches thick and 9 inches deep. The third is 45 feet 2 inches after the second, and is 6 inches thick with a solid timberline running port to starboard as a footing. This bulkhead stands 3 feet off the bottom. The 4th bulkhead is 209 feet 8 inches aft the bow. The afterpeak begins at 244 feet aft the bow, with the vertical timberline 9 inches thick.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

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Probable Service: Cargo carrier.

Flora & Fauna: Many fish, including largemouth bass, were repeatedly observed lingering in a hydrilla-free, 8 foot-deep, scour area immediately off the bow and in the shade of the concrete forepeak.

Comments: The concrete block in the bow lies atop the deck, with its casings having long since rotted away or been removed. The block itself still contains the imprint of the forms, but is rapidly disintegrating due to exposure to alternating water and weather conditions. The forward side of the block base is 5 feet 4 inches from the outside measure of the bow stem perpendicular. The aft side of the block base is 17 feet 2 inches on both port and starboard sides. The bow structure forward of the block is normally several inches below MLW. The purpose of the block is unknown. Immediately forward of the second bulkhead, the keelson was measured at 3 feet wide, but begins to taper substantially at 164 feet aft the bow. Approaching the afterpeak area, the keelson and sister keelsons combined are 4 feet across. At 144 feet aft the bow the boiler platform begins. At 161 feet the engine platform and packing block assemblages begin. The packing block section is 12 feet and ends at 173 feet aft the bow. Sixteen vertical posts were noted along the aft midships port side and may represent the stanchion remains of a coal bunker section. The stem of the ship appears to be badly damaged and broken, but contains at least a 6 to 7 feet depth in hold. The hull has been in its present location since at least 1929.

Site State No.: 18CH561.

Site Field No.: 11.

Army Engineers No.: 100.

Transect: 2.

Location: 38°28.206 - 77°16.065.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. The hull and interior features are well preserved. Largely submerged.

Orientation: East-west, bow facing east, on bearing 95°.

Identification: *Swampscott*.

Origin: Built by the Beaumont Shipbuilding and Drydock Co., Beaumont, Texas, for the United States Shipping Board.

Proximity: Approximately 210 yards from central beach area of transect. The bow lies off the port stern of site 18CH539 (*Fernandina*). Site 18CH508 (*Baladan*) lies to its port (north) side. The stern lies in a line with 18CH526 (*Buihsan*).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel extant. Tunnel is 12 feet long and 1 foot 7 inches wide.

No. of Masts: -

No. of Screws: 1.

Length: 250 feet 4 inches.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross straps.

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Concrete: Large quantities of molded concrete structures onboard, principally in forepeak area.

Stempost: Extant. Iron plate still on bow.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: Extant. The iron foot is extant, but no rudder was located.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Small vegetation on fore and afterpeak, and portions of framing on port stern.

Comments: Hull has been in its present location at least since 1929.

Site State No.: 18CH562.

Site Field No.: 51.

Army Engineers No.: 119.

Transect: 2.

Location: 38°28.165 - 77°16.131.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged. Condition not determined.

Orientation: East-west with bow facing east, on bearing 97°.

Identification: *Tanka*.

Origin: Built by the Traylor Shipbuilding Corp., Cornwells Heights, Pennsylvania, for the United States Shipping Board.

Proximity: Lies in the southern sector of the transect, with 18CH546 (*Kangi*) off the port side, 18CH560 (*Quemakoning*) off the starboard side, and the bow wedged between the stems of 18CH510 (*Battachatchee*) and 18CH509 (*Banicia*).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

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Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Hull has been in its present location since 1929 with only minor shifting of the stem.

Site State No.: 18CH563.

Site Field No.: 91.

Army Engineers No.: 75.

Transect: 2.

Location: 38°28.190 - 77°16.100.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Hough type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west, with bow facing east, on bearing 97°.

Identification: *Wakan* [also given as *Wakanna*].

Origin: Built by the Grant, Smith, Porter Co., Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in central sector of the transect. Site 18CH512 (*Bedminster*) lies off the port side, the stern of 18CH548 (*Kickapoo*) off the bow, and the bow of 18CH517 (*Bockonoff*) off the stem.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Round.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 2.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 4.

Rudder Post: None. No rudder discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: Some damage noted in stem hull. *Wakan* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least August 1929.

Site State No.: 18CH564.

Site Field No.: 88.

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Army Engineers No.: 68.

Transect: 2.

Location: 38°28.215 - 77°16.104.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west, with bow facing east, on bearing 98°.

Identification: *Wayhut*.

Origin: Built by the St. Johns River Shipbuilding Co., South Jacksonville, Florida, for the United States Shipping Board.

Proximity: Lies in central sector of the transect. Site 18CH566 (*Woyaca*) lies off the port, with the stems of 18CH561 (*Swampscott*), 18CH508 (*Baladan*), and 18CH565 (*Wihaha*) off the bow, and 18CH526 (*Buhisan*) off the starboard stem.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: A small pile of concrete lies in the bow sector and on the stern sides.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: *Wayhut* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least 1929.

Site State No.: 18CH565.

Site Field No.: 13.

Army Engineers No.: 66.

Transect: 2.

Location: 38°28.217 - 77°16.078.

Site Class: Historic.

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Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Hull is in good condition but interior broken up. Partially submerged.

Orientation: East-west with bow facing east, on bearing 910.

Identification: *Wihaha*.

Origin: Built by the Grant, Smith, Porter Co., Portland, Oregon, for the United States Shipping Board.

Proximity: Lies approximately 210 yards from central beach area of transect, off the port of 18CH542 (*Fort Stevens*), and starboard of 18CH508 (*Baladan*). Stern is wedged between the bows of 18CH566 (*Woyaca*) and 88.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel extant in vestigial form.

No. of Masts: -

No. of Screws: 1. Vestigial remnant of shaft tunnel.

Length: 259 feet 2 inches.

Beam (extreme): 44 feet 6 inches.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross straps.

Concrete: In both bow and stern areas (not measured).

Stempost: Extant.

Sternpost: Extant. Is 2 foot 6 inches wide, and separated from the hull by a space of 10 inches.

No. Bulkheads: 1 forepeak and 1 main bulkhead extant. The forepeak wall is extant and is 8 feet 2 inches aft bow stem.

The forepeak bulkhead is 16 feet 8 inches aft the bow, and the main bulkhead is 131 feet 2 inches aft the bow.

Rudder Post: Extant. Stands 6 feet 1 inches distance from sternpost. No rudder located in area.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Flora on forepeak area only.

Comments: The ship's centerline bulkhead is its most prominent and visible architectural feature. Firebrick was found amidships, and a large steel cable was noted in the bow. An iron tool (metal cutting snips) was discovered at 126 feet forward of the stern on the starboard side. *Wihaha* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. The hulk has been in its present location at least since 1929.

Site State No.: 18CH566.

Site Field No.: 87.

Army Engineers No.: 90.

Transect: 2.

Location: 38°28.223 - 77°16.110.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel, with port side and centerline exposed. Appears lying with slight list to starboard.

Orientation: East-west with bow facing east, on bearing 102.5°.

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Identification: *Woyaca*.

Origin: Built by L.H. Shattuck, Portland, Oregon, for the United States Shipping Board.

Proximity: Lies in central sector of the transect. 18CH542 (*Fort Stevens*) lies off the port bow, 18CH565 (*Wihaha*) off the starboard bow, and 18CH564 (*Wayhut*) off the starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 3 foundations are visible.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Light vegetation on port side.

Comment: *Woyaca* was officially released from bond on 27 April 1929, indicating that the ship was burned down prior to that date. The hull has been in its present location since at least August 1929.

Site State No.: 18CH567.

Site Field No.: 137.

Army Engineers No.: 33.

Transect: 2.

Location: 38°28.282 - 77°16.165.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing not determined.

Identification: *Yawah*.

Origin: Built by L.H. Shattuck, Portsmouth, New Hampshire, for the United States Shipping Board.

Proximity: Lies in Tier 6, in the northwestern sector of the transect. Site 18CH532 (*Casmalia*) lies off the port, 18CH525 (*Buckhorn*) and 18CH579 (Unidentified steamship) off the starboard.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

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Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 1.

Length: Not determined. **Width:** Not determined. **Thickness:** Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: On 13 August 1929 the ship was bonded for burning. Hull has been in its same general location since at least 1929, but has shifted position on several occasions and migrated somewhat westward to its present position between 1943 and 1952.

Site State No.: 18CH568.

Site Field No.: 60.

Army Engineers No.: 147.

Transect: 2.

Location: 38°28.117 - 77°16.120.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 91.5°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Lies in the southwest sector of the transect, with 18CH505 (*Anoka*) off the port stern, 18CH569 (Unidentified steamship) off the starboard side, and the stern of 18CH504 (*Angelina*) off the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

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Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Hull has been in its present location since at least 1936.

Site State No.: 18CH569.

Site Field No.: 61.

Army Engineers No.: 154.

Transect: 2.

Location: 38°28.113 - 77°16.125.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 94.5°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Lies in the extreme southwest sector of the transect, with 18CH568 (Unidentified steamship) off the port stern, 18CH545 (*Ida S. Dow*) off the starboard side, and the stem of 18CH547 (*Kasota*) off the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

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No. Bulkheads: Not determined.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Hull has been in its present location since at least 1936.

Site State No: 18CH570.

Site Field No: 1.

Army Engineers No.: Unknown.

Transect: 2.

Location: 38° 28.285 - 77° 16.106.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Partially intact. Keel resting on bottom, drawn up on shore. Bow appears to have been removed. Amidships exposed. Stern is submerged. Considerable debris has fallen onto the starboard side of the wreck. No definite sign of fire trauma.

Orientation: North-south, with amidships sector at the north end, stern at the south, bearing 176°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: At north entrance to Mallows Bay. 18CH571 (Unidentified steamship), 18CH532 (*Casmalia*), and 18CH588 (Barge) lay off the port (west) side. The stern of 18CH570 (Unidentified steamship) nearly touches the port stem of 18CH511 (*Bayou Teche*). 18CH572 (Unidentified steamship) and 18CH581 (Barge) lay off the starboard (east) side. Site 18CH580 (Barge) lay touching the starboard bow area.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: 2.

Length: Extant remains are 245 feet. Total length is unknown.

Beam (extreme): 47 feet.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: 3 feet.

Fasteners: Iron.

Strapping: Iron cross straps, 4 inches width. Band straps, 8 inches width, riveted.

Concrete: None.

Stempost: None.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: None.

Gudgeon/Pintals: None.

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Probable Service: Cargo carrier.

Flora & Fauna: Extensive overgrowth of vegetation extending from the forward half of the vessel site, the landmost extent of the site, to the forward edge of the engine and boiler platforms. Small trees, vines, and brush cover this section of the site, and extend onto the shore. Snakes, identified as North American gray water snakes, were observed on and adjacent to the site. The feces of a variety of birds and mammals were also observed on the site.

Comments: An estimated 120 feet of the forward section of the ship is gone or buried beneath soils that have accreted in the area. The twin-engine platforms of the site are among the most clearly defined architectural feature of the vessel. The hull is laced with iron cross straps riveted in place to an 8 inch-wide band strap. The stern projects downward from the north, and the entire vessel appears to have been either drawn up or cast up on the shore, with current flow causing its stern to swing around into a near north-south orientation. The northernmost sector has been joined to the mainland by accreted earth and sand. A sand bar has formed aft the engine platforms between 1994 and 1995 which, together with the remains of the hulk, forms a barrier to ready entrance into the bay from the north. The stern of No. 1 rests in 9 feet of water and is less than a foot from the stern of No. 37. Examination of the sandspit suggested that considerable debris from the site has broken off and lies beneath this newly formed peninsula shoreline. A duck blind was erected by hunters on the sandbar in 1995 but had fallen into disrepair by the following year. This vessel migrated into its present position sometime between 1952 and 1986. Examination of the starboard aft area underwater indicates the hull is extremely well preserved to a depth of 9 feet.

Site State No.: 18CH571.

Site Field No.: 4.

Army Engineers No.: 105.

Transect: 2.

Location: 38°28.301 - 77°16.154.

Site Class: Historic.

Site Type: Merchant vessel (steamship), possibly Ferris type.

Condition: Resting on a flat bottom. Usually awash or submerged, and subject to occasional high energy wave action.

The stem lies underwater with its bottom resting in 10 feet of water. The bow stands in 4 feet 6 inches of water (MLW).

Orientation: Lies on an east-west orientation, with its bow on the eastern extremity, on a bearing 108°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: The site lies in the northern sector of the transect, with site 18CH585 (Barge) off its port bow, and 18CH572 (*Casmalia*) approximately 30 feet off its starboard side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Sharp.

Stern Configuration: Keel

Propulsion System: Screw.

No. of Masts: None.

No. of Screws: 1. Shaft tunnel is extant in vestigial form, and is 1 foot 8 inches wide.

Length: 256 feet between perpendicular remnants, 257 feet 9 inches outside perpendiculars.

Beam (extreme): 46 feet.

Depth of Hold: Not determined.

Draft: Not determined.

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Room & Space: Not determined.

Fasteners: Not determined.

Strapping: Iron cross straps.

Concrete: Concrete frames in bow. The concrete is of an inferior mix of large gravels with little sand content. A second set of small blocks or frames lie in the stem at a point 244 aft the bow and alongside the shaft tunnel.

Stempost: Extant.

Sternpost: Extant. The iron forefoot is still in place.

No. Bulkheads: 2 foundations extant. Sideline bulkheads, port and starboard, are 1 foot wide timbers.

Rudder Post: Not determined.

Gudgeon/Pintals: Several feet off the sternpost are the remnants of a gudgeon, largely buried by mud and a large iron plate of undetermined identification.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Forty feet forward of the stern, inside the hull, lies a spread of bricks. The keelson and sister keelson assemblage are 6 feet in width. Interior port side features are buried under a covering of fine sand, suggesting this site may have been among the vessels filled with sediments to hold them in place. Near the bow, a massive assemblage of iron pins line the keelson. No fire damage is evident. The poor quality of concrete in the bow and stern (collision frames, stiffeners, supports?), when compared to the fine grained, small-graveled quality of other sites, is noteworthy and possibly suggest cost cutting measures which may have been adopted by the shipbuilder during construction.

Lying beneath and directly adjacent to the starboard bow are fragmentary remains of another keelson, which No. 4 appears to have been driven over or been pulled onto. Three great timbers, each fitted tongue-in-groove, form the most prominent fragment, which is 7 feet 10 inches in length by 5 feet wide at its broad end, and 5 feet wide at the point which it extends beneath 18CH571. The timbers are an inch thick. 18CH571 has been in its approximate location, with only minor movements, since 1929.

Site State No.: 18CH572.

Site Field No.: 24.

Army Engineers No.: Unknown.

Transect: 2.

Location: 38°28.305 - 77°16.080

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Exposed, filled with soil and overgrown with vegetation. Vessel is generally dry.

Orientation: East-west with bow facing east, on bearing 61°.

Identification: Unidentified. Nicknamed "The Concrete Wreck".

Origin: United States Shipping Board.

Proximity: Lying in the northeast sector of the transect, the bow nearly touches the port side of site 18CH493 (*Adway*).

One end of 18CH581 (Barge) lies less than 5 feet off the port midships aft area.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Shaft tunnel extant and is 5 inches deep.

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No. of Masts: -

No. of Screws: 1.

Length: 284 feet. (Measurement taken alongside and not along centerline).

Beam (extreme): 45 feet. (Measurement taken 84 feet aft the bow).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: Stepped concrete frames in both the bow and stern. The port frame lies 10 foot 6 inches distance from the sternpost, and 15 feet to the outer ring of the gudgeon on the rudder post. Both frames are 5 feet tall, with 2 incised steps. At the lower step, the frames are 2 feet 2 inches wide and 1 foot thick just below the step. The first step is 9 inches deep. The second step is 1 foot 7 inches deep, and the frame is 1 foot 10 inches wide just below the second step. The two frames, at their bases, are separated by a distance of 2 feet 2 inches.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Extant. Distance from rudder post to sternpost is 4 feet. Fragmentary section of rudder extant.

Rudder Post: Extant.

Gudgeon/Pintals: 1 gudgeon extant below the MLW line.

Probable Service: Cargo carrier.

Flora & Fauna: Dense vegetation covers the entire vessel. The site was employed as one of two biotic inventory platforms in the transect. A wide variety of butterflies, ants, dragonflies, spiders, mites, ticks (including zebra and deer) were encountered during the inventory. Mammal and avian feces were plentiful. Blue heron, phoebes, redwing blackbirds, and bald eagles were observed onboard. One unidentified water snake was encountered onboard, and a second in the water adjacent to the wreck, while snake skins were found in several cedar trees onboard. A single beaver lodge was also found onboard with an exit hole leading through the hull nearby. Two beavers were later encountered on the ship. Nests for muskrats and nutria were found amidships. The cracked shells of freshwater clams were noted scattered about in several concentrations. Deer tracks and matted sites where deer and other large animals rested were found on the bow near the shore. One deer was seen swimming from the wreck.

Comments: Exploration of the site was hindered by the dense vegetation. The hull stands approximately 3 feet above the waterline at MLW along its entire length. In the stern end a substantial steel cable was noted, with a rectangular bolted clip bearing the imprint "Genuine 3/4 USA." This hull apparently migrated or was towed to its present position sometime after 1952, as it does not appear in situ on the aerial photos of that period, but before 1986 when the first archaeological inventory work began.

Site State No.: 18CH573

Site Field No.: 38.

Army Engineers No.: Unknown.

Transect: 2

Location: 38°28.079 - 77°16.134.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on side, severely damaged and broken up. Almost entirely submerged.

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Orientation: Southwest-northeast, on bearing 59°. Bow location not determined.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Lies in the southwest sector of the transect, with 18CH492 (*Accomac*) immediately off the south side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: None.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Small brush grows between framing at the eastern exposed extremity of the site.

Comments: About 13 August 1979, during a hurricane, a wooden ship hulk broke free from Mallows Bay and drifted away. The hulk was eventually secured by the U.S. Coast Guard and returned to the embayment and tied to the starboard side of *Accomac*.

Site State No.: 18CH575.

Site Field No.: 58.

Army Engineers No.: Unknown.

Transect: 2.

Location: 38°28.188 - 77°16.156.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Stern entirely submerged. Forward area interior flooded. Well preserved forward bulkhead.

Orientation: East-west with bow facing east, on bearing 92.5°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH576 (Unidentified steamship) off the port side, 18CH547 (Unidentified steamship) off the starboard side, and the sterns of 18CH517 (*Bockonoff*) and 18CH503 (*Andra*) sandwiching in the bow.

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Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 3 foundations extant.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: Light growth forward of amidships on both sides, on the bow, and along the centerline.

Comments: Stem in 7 feet of water (MLW). Difficult to access. Hull has been in its present location since at least March 1936.

Site State No.: 18CH575.

Site Field No.: 119.

Army Engineers No.: 146.

Transect: 2.

Location: 38°28.131 - 76°16.132.

Site Class: Historic.

Site Type: Merchant vessel (steamship), Ferris type.

Condition: Resting on keel. Well preserved hull and best example of twin shaft casing lines extant.

Orientation: East-west, with bow facing east, on bearing 98°.

Identification: *Benzonia*.

Origin: Built by the G.M. Standifer Construction Corp, Vancouver, Washington, for the United States Shipping Board.

Proximity: Lies in southernmost sector of the transect. 18CH531 (*Caribou*) and 18CH589 (Barge) lay off the port side, 18CH505 (*Anoka*) off the starboard, the stems of 18CH534 (*Congaree*) and 18CH543 (*Guilford*) off the bow, and 18CH577 (Unidentified steamship) off the stern.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Sharp.

Propulsion System: Screw. Port, and probably starboard, boiler and engine platform extant.

No. of Masts: -

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No. of Screws: 1. At least 4, possibly 5 shaft casing platforms are extant on the port side line.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: Extant in forepeak.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: 3 visible foundations.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: Light growth on forepeak and in the port stern area.

Comment: Off starboard stern evidence of a possible ship fragment is exposed during MLW. The hull has been in its present location since at least 1929.

Site State No.: 18CH576.

Site Field No.: 63.

Army Engineers No.: None.

Transect: 2. **Location:** 38°28.195 - 77°16.157.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Stern entirely submerged, bow exposed but flooded. Some features appear well preserved, but others are extremely eroded.

Orientation: East-west with bow facing east, on bearing 92.5°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Lies in the west central sector of the transect, with 18CH544 (*Hoosac*) and 18CH500 (*Allison*) off the port stern, 18CH575 (Unidentified steamship) off the starboard side, and the stern of 18CH517 (*Bockonoff*) off the starboard bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

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Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: 3 visible.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: Hull has been located in its present position since at least 1936. Forepeak is extant

Site State No.: 18CH577.

Site Field No.: 80.

Army Engineers No.: Unknown.

Transect: 2.

Location: 38°28.118 - 77°16.156.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on its side (port or starboard not determined), and in poor condition. Only one half of the lower hull is extant.

Orientation: North-south, on bearing 174°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Southwestern extremity of transect, west of the sterns of 18CH531 (*Caribou*), 18CH589 (Barge), 18CH575 (*Benzonia*), 18CH505 (*Anoka*), 18CH568 (Unidentified steamship, and 18CH569 (Unidentified steamship).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Iron cross strapping.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

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No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: This hulk is believed to have been among several that floated free from the anchorage area and was later returned, but not deposited amidst the wrecks. The site does not appear on the 1952 aerial photos and thus must have been placed in its present position after that date.

Site State No.: 18CH578.

Site Field No.: 133.

Army Engineers No.: Unknown.

Transect: 2.

Location: 38°28.202 - 77°16.578.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Entirely submerged.

Orientation: East-west with bow facing east, on bearing 92°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Lies in Tier 6, in the west central sector of the transect. Site 18CH553 (*Namecki*) lies off the port bow, and 18CH544 (*Hoosac*) off the starboard bow. 18CH576 (Unidentified steamship) lies off the starboard wall.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined. Width: Not determined. Thickness: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Extant.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comment: The hull came to rest in its present location between 1936 and 1943.

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Site State No.: 18CH579.

Site Field No.: 42.

Army Engineers No.: 34.

Transect: 2.

Location: 38°28.281- 77°16.164.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Entirely submerged. Condition not determined.

Orientation: East-west with bow facing east, on bearing 83°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Lies in the northern sector of the transect, with 18CH525 (*Buckhorn*) and 18CH586 (Barge) off the starboard side, 18CH53 (*Casmalia*) off the port, and the stern of 18CH558 (*Panga*) off the bow.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: The hull rests in 6 to 8 feet of water (MLW). Investigation of site stymied by sea conditions. Wreck has been in its present location since at least 1943.

Site State No.: 18CH580.

Site Field No.: 2

Army Engineers No.: None.

Transect: 2. **Location:** 38°28.308 - 77°16.108.

Site Class: Historic.

Site Type: Barge.

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Condition: Moderately preserved. Partially exposed.

Orientation: North-south, on a bearing of 193.5°.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies on the eastern side of a peninsula formed by site 18CH580 and a recently (1952-1986) accreted landmass joining it with the mainland. To the east of 18CH580 lies site 18CH581 (Barge). To the immediate south is the starboard side of 18CH580.

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat bottomed.

Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: Not determined. (Estimated 50 feet).

Beam (extreme): Not determined. (Estimated 25 feet).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: None.

No. Bulkheads: Not determined.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Work platform, cargo hauling.

Flora & Fauna: The site is heavily overgrown with trees, brush, and vines, as well as a variety of wetland plants during all seasons but winter. The western side is covered by trees and brush extending from the peninsula shoreline, and small bushes are growing on the head of every frame along the north and east sides. North American gray water snakes have been observed on the site.

Comments: This wreck shares much of the same environment as No. 1 and has been in its present position since mid-1943. The vessel was probably employed as a working platform by wildcat scrap salvors or the Bethlehem Steel Corporation. Small barges of this size were definitely operating in Mallows Bay during the period of wildcat operations and the Steinbraker era in the 1930s and afterwards. One such barge is pictured laden with a cargo that appears to be sand or earth, off the port side of *Ida S. Dow*, in the lower sector of Mallows Bay, ca. 1936.

Three floor stretchers are visible. On the west side of the hull, 10 vertical wall support timbers were counted. Sidewall planking is still attached in some sections, but most has collapsed outward. Floor planking is still evident, but was determined to exist only by probing with iron rods. It is uncertain if knee braces or foundation rail cornice supports are still extant.

Site State No.: 18CH581.

Site Field No.: 3.

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Army Engineers No.: None.

Transect: 2. **Location:** 38°28.301 - 77°16.092.

Site Class: Historic.

Site Type: Barge.

Condition: Fragile. Largely submerged. Rests squarely on the bottom on its flat bottom.

Orientation: 129.5°.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies squarely between sites 18CH570 (Unidentified steamship) and 18CH580 (Barge) to the west, and 18CH572 (Unidentified steamship) to the east. The shore lies to the north.

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat bottomed.

Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: 170 feet.

Beam (extreme): 32 feet 4 inches.

Depth of Hold: 4 feet (extant).

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron pins.

Strapping: None.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: At least 4, divided along the centerline, port to starboard, and 3 stretchers, bow to stem.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Work platform, cargo hauling.

Flora & Fauna: The site is seasonally covered by hydrilla as it lies in a bog-like environment when submerged.

Numerous water snakes have been encountered on and around the site. Sparse growth of false indigo appears on and around the few wooden features that remain exposed.

Comments: The vessel is quite similar to modern steel barges in every aspect except that it is of wood construction, and is quite similar to several barges excavated at the Battery Cove Site in Alexandria, Virginia [Terrell, 1990]. Contemporary barges of this size are generally employed as service platforms upon which cranes and other large machines used in offloading other vessels, or in dredging operations, are usually employed. This vessel has been in its current position since at least 1936, indicating that it was probably brought in for utility work by either WM&SC or wildcat scrap operators afterwards.

Five stringers were observed. Wall stanchion timbers were mounted. Sidewall planking is still attached in some sections, but most planks have collapsed outward. Fragile floor planking is still evident, but was determined to exist only by probing with iron rods. Several knee braces or foundation rail cornice supports were noted.

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Site State No.: 18CH582.

Site Field No.: 6.

Army Engineers No.: None.

Transect: 2.

Location: 38°28.101 – 77°16.000.

Site Class: Historic.

Site Type: Barge.

Condition: Resting on flat bottom in poor condition, and partially exposed at its western extremity. It's eastern extremity is buried beneath fill soil.

Orientation: East-west, on a bearing 85.5°.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies at the southeastern extremity of the transect, immediately to the north of site 18CH583 (Barge).

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat bottomed.

Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: Not determined. (Estimated at 45 feet).

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Work platform, cargo hauling.

Flora & Fauna: None on wrecksite, but extensive vegetation on landfill covering the eastern side of the hull.

Comments: The site is partially buried beneath spoil that was bulldozed over it. The site is situated at the western extremity of a man-made island (now accreted to the shore) produced by spoil materials dumped in the area during the dredging of access channels in the nearby waters and the Burning Basin ca. 1942. The mound, which stands approximately 6 to 8 feet high, covering the wreck's eastern end, is eroding away. The barge was brought to its present location sometime after 1936 and before 1942. It is probable that the hulk was intentionally buried.

Site State No.: 18CH583.

Site Field No.: 7.

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Army Engineers No.: None.

Transect: 2.

Location: 38°28.099 - 77°16.000.

Site Class: Historic.

Site Type: Barge.

Condition: Resting on flat bottom in poor condition, and partially exposed at its western extremity. Its eastern extremity is buried beneath fill soil.

Orientation: East-west, on a bearing 85.5°.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies at the southeastern extremity of the transect.

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat bottomed.

Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: Not determined. (Estimated at 45 feet).

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron

Strapping: None.

Concrete: None.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Work platform, cargo hauling.

Flora & Fauna: None on wrecksite, but extensive vegetation on landfill covering much of the hull.

Comments: See 18CH582.

Site State No.: 18CH584.

Site Field No.: 22.

Army Engineers No.: None.

Transect: 2.

Location: 38°28.278 - 77°16.060.

Site Class: Historic.

Site Type: Barge.

Condition: Resting on a flat bottom, totally submerged.

Orientation: Northwest-southeast, on bearing 96°.

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Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies in the northeast sector of the transect, between site 18CH493 (*Adway*) to the north and west and 18CH551 (*Moosabee?*) to the south and east.

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat bottomed.

Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Work platform, cargo hauling.

Flora & Fauna: Occasional small growth on 4 exposed posts.

Comments: Some vessel remains observed 35 feet from the northwestern extremity, believed to be possible debris from the wreck. This vessel has been in its present position since mid-1943, and may have been employed in either wildcat scrap salvage, or in operations undertaken by the Bethlehem Steel Corporation.

Site State No.: 18CH585.

Site Field No.: 25.

Army Engineers No.: None.

Transect: 2.

Location: 38°28.305 - 77°16.134.

Site Class: Historic.

Site Type: Barge.

Condition: Resting on a flat bottom, entirely submerged, and in fragmentary condition.

Orientation: East-west, on bearing 95°.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies in the northwest sector of the transect, and north of 18CH571 (Unidentified steamship) and No. 138.

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat bottomed.

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Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: 65 feet (estimated).

Beam (extreme): 20 feet (estimated).

Depth of Hold: 4 to 6 feet (estimated).

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron. Also wood, tongue and groove fastenings.

Strapping: None.

Concrete: None.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Work platform, cargo hauling.

Flora & Fauna: None.

Comments: Examination by divers suggests the site is almost a duplicate of site 18CH588 (Barge), which is 63 feet long and 20 feet abeam and stands 4 feet off the bottom. 18CH585 was moved to its present location between 1943 and 1952.

Site State No.: 18CH586.

Site Field No.: 43.

Army Engineers No.: None.

Transect: 2.

Location: 38°28.271- 77°16.168.

Site Class: Historic.

Site Type: Barge.

Condition: Resting on its flat bottom. Entirely submerged. Condition not determined.

Orientation: East-west with bow facing east, on bearing 105°.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies in the northern sector of the transect, with 18CH579 (Unidentified steamship) off the north side, 18CH557 (*Owatama*) off the south side, and the stern of 18CH525 (*Buckhorn*) off the east side.

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat bottomed.

Stern Configuration: Not determined.

Propulsion System: Unknown, probably towed.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

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Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Not determined.

Strapping: Not determined.

Concrete: None.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Work platform, cargo hauling.

Flora & Fauna: None.

Comments: Wreck has been in its present location since at least 1943.

Site State No.: 18CH587.

Site Field No.: 104.

Army Engineers No.: None.

Transect: 2.

Location: 38°28.304 - 77°1 6.070.

Site Class: Historic.

Site Type: Barge.

Condition: Poorly preserved and entirely submerged.

Orientation: Due north-south, with one end lying hard on the beach.

Identification: Unidentified.

Origin: Unknown. Probably American. Possibly belonging to either Western Marine and Salvage Company or Bethlehem Steel Corporation.

Proximity: Lies directly off the port bow of No. 18CH572 (Unidentified steamship).

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat bottomed.

Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

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Stempost: None.

Sternpost: None.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Work platform, cargo hauling.

Flora & Fauna: None.

Comment: Four longitudinal stringers and a centerline chine are in evidence. The site was discovered through aerial photography but has not been evaluated through hands on investigation. This vessel arrived at its present location sometime between 1943 and 1952.

Site State No.: 18CH588.

Site Field No.: 110.

Army Engineers No.: None.

Transect: 2.

Location: 38°28.284 - 77°16.125.

Site Class: Historic.

Site Type: Barge.

Condition: Resting on flat bottom. Wall planks have fallen off. The site is poorly exposed.

Orientation: East-west, on bearing 117°.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies on the western side of a peninsula formed by 18CH570 (Unidentified steamship) to the east, 18CH558 (*Panga*) and 18CH532 (*Casmalia*) to the south, 18CH579 (Unidentified steamship) to the west, and No. 138 to the north.

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat bottomed.

Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: 63 feet (estimated).

Beam (extreme): 20 feet (estimated)

Depth of Hold: 4 feet extant.

Draft: Not determined.

Room & Space: 3 feet between frames.

Fasteners: Wood, tongue-in-groove, and iron.

Strapping: None.

Concrete: None.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: None.

Rudder Post: None.

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Gudgeon/Pintals: None.

Probable Service: Work platform, cargo hauling.

Flora & Fauna: None.

Comment: The vessel's walls are vertical, and stand 4 feet on the sides. The bow and stern ends are at 45° from the floor. Ten stanchions line each side, 6 feet apart, each reinforced by wooden knees fastened to them. Stringers run longitudinally along the floor, and are stabilized by cross beams. Vertical side timbers are spaced 3 feet apart. Most frames appear to be fitted tongue in groove. The site is quite similar to 18CH585. Hull has been in its present location since at least 1943 and may have been employed by wildcat scrap salvors in the late 1930s, but more likely by the Bethlehem Steel Corporation during the work at Mallows Bay in World War II.

Site State No.: 18CH589.

Site Field No.: 130.

Army Engineers No.: Unknown.

Transect: 2.

Location: 38°28.136 - 77°16.126.

Site Class: Historic.

Site Type: Barge.

Condition: Resting on flat bottom. Entirely submerged. Condition unknown.

Orientation: East-west, on bearing 92°.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies in the lower western tier of hulls in Mallows Bay, wedged between site 18CH531 (*Caribou*) on the north side, and 18CH575 (*Benzonia*) on the south side.

Hull Remains:

Wood, plank on frame.

Hull Configuration: Flat bottomed.

Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: 100 feet (estimated from 1952 aerial photograph). Width: 35 feet (estimated from 1952 aerial photograph). Thickness: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Not determined.

Strapping: Not determined.

Concrete: Not determined.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Work platform, cargo hauling.

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Flora & Fauna: None.

Comment: The hull was deposited in its present location between 1943 and 1952.

Site State No.: 18CH590.

Site Field No.: 8.

Army Engineers No.: None.

Transect: 2.

Location: 38°28.141 - 77°16.598.

Site Class: Historic.

Site Type: Merchant vessel debris mound.

Condition: Individual sections well preserved, but mound consists entirely of disarticulated materials.

Orientation: None. Heaped in an irregular rectangular-shaped mound.

Identification: Unknown.

Origin: United States Shipping Board.

Proximity: Lies at the southeastern extremity of the transect, immediately north 18CH582 (Barge) and 18CH583 (Barge).

Hull Remains: Wood, plank on frame.

Hull Configuration: Not determined.

Stern Configuration: Not determined.

Propulsion System: Not determined.

No. of Masts: None.

No. of Screws: None.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: Fragments extant.

Concrete: Fragments extant.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Fragments of at least 1 nearly intact bulkhead section is extant.

Rudder Post: Possible fragments extant.

Gudgeon/Pintals: Not determined.

Probable Service: Probable cargo carrier.

Flora & Fauna: None.

Comments: This site appears to have been a debris pile composed of miscellaneous ship parts on the northern extremity of a small island, erected from dredge spoil, that later eroded away. However, as it lies squarely in the same position that the bow of the wooden steamship *Fort Sill* had been grounded in until at least early 1943, it is possible that the mound may constitute a disarticulated remnant of that vessel. The mound was first revealed in 1952 aerial photographs as the nearby shoreline eroded away.

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Site State No.: 18CH591.

Site Field No.: 101.

Transect: 2.

Location: 38°28.247 - 77°15.586.

Site Class: Historic - transportation - industrial - standing structure - rural - visible ruin - above and below grade.

Site Type: Marine slipway (or skidway) and landing.

Ethnic Association: Anglo-American.

Materials Present: Architecture.

Diagnostics: None.

Features Present: Yes.

Types of Features: Construction feature - foundation - slipway cut - depression - log slip lanes.

Method of Sampling Survey of extant feature area. No sampling.

Flotation Samples: None.

Soil Samples: None.

Other Analysis: None.

Comments: The utility of this feature area is only hypothetical, but in concert with other findings, the purpose of the site was determined to most likely to serve as either a stable berthing area for small craft suitable to facilitate offloading of scrap metals salvaged from the USSB fleet, or as a construction/launching site for small watercraft. Logs, cut and stripped of bark but otherwise untrimmed, were employed as stacked slip guides, or possibly as skids. The logs project from the shore in nearly parallel lines on both sides of the way and were anchored in the earth for a considerable distance inland. The disposition of the buried sections were determined by probing through the soil with iron rods. All logs lie on the same elevation. A distinctive V-shape, formed by the progression of logs, was further accentuated by an area excavated from the shoreline within the head of the way to facilitate snug berthing. This V-shape, although filled with rotting organic material and soft muds, is still quite discernible. At the head of the slipway, a complex cable yarding and lift system, designed to haul salvaged scrap up a narrow ravine to a roadway on the nearby ridge, may have been employed to work in tandem with the offloading of scrap from boats brought into the slip. That the site probably served as a slip than a skidway/launch site is based upon the following observation: the length of that portion of a building skidway/launch that is above the high-water mark was normally one and a half times the length of the longest vessel that was to be constructed on the site. There must always be sufficient distance between the sternpost of the vessel under construction and the water to allow the vessel to attain a safe launching velocity before it reaches a depth of water sufficient to reduce speed to a point where the slightest obstruction might cause the vessel to stick on the ways. The distance that the longitudinal underwater portion of the slip extends out must be sufficient to give firm support to launching ways until the vessel has become waterborne, or "tips". Therefore, it is necessary to determine the launching draft of the largest vessel likely to be built on the slip, and have the ends of the slipway extend out a sufficient distance from the shore to give more than the required depth of water when tipping occurs. The tipping can be considered to occur when the longitudinal center of a vessel is over the ends of the ways. [Desmond 1919, 70-71].

If 18CH591 is a launching way, a vessel of no more than 15-foot beam and 48 foot length might have been effectively launched, given the accepted dimensional ratio for slipway size to that of the vessel being fielded as the site is 15.5 feet wide and 72 feet at its longest point. However, the current depth at the site, about 18 inches to 2 feet at high water, would not have been adequate enough to permit the launch a vessel of this size at the slight inclination of the slip timbers, which is estimated at less than 10 degrees. Even if a channel had been cut to deeper water, the vessel being launched would have been obliged to travel approximately 1,100 feet to reach the 4 to 5 foot depth of

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water (even if fielded ca. 1929-1943). Owing to heavy ground cover over the site and lack of any intrusive investigation (other than probing), it was impossible to establish if keel blocks or a slip floor exists or were ever in place, or if evidence of any additional launching apparatus remains. The only possible construction material or launch apparatus noted was a 3-foot-long triangular piece of wood, which may have been a scarf joint or a chock block. The piece was located 25 feet to the south of the site. If it is the latter, it may have served as a hull brace for either boat construction or in launching operations.

The proximity of 18CH591 (Marine skidway) to the lift system, and the likely impracticability of the former for service as a launching slip, suggests that the slipway was most likely employed as a landing site for small craft employed in scrap hauling. With the first visible evidence of the yarding cable system used by salvors lying less than 90 feet away, also situated directly in the throat of the small ravine in which the slip is set, it is reasonable to suggest that the slip might have served as a landing and offloading point for scrap being moved by a yarding system to the ridge road 2,500 feet away.

A possible second slipway was located to the immediate north of 18CH591. Its disposition was also determined largely by probing as only a small section of its timbers are exposed. Unlike the better exposed 18CH591, the timbers of this site are not at parallels with each other. This slip's characteristics were not readily visible, and the site, which is incorporated in the 18CH591 plan, will require further investigation to verify or deny its actual identity and construction.

Site State No.: 18CH594.

Site Field No.: 48.

Army Engineers No.: None.

Transect: 3. **Location:** 38°28. 100 – 77°16.490.

Site Class: Historic.

Site Type: Barge.

Condition: Resting on its flat bottom, partially exposed and in moderate condition below the waterline.

Orientation: Southwest - northeast. Bearing not determined.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies on the south shore entrance of the Burning Basin, adjacent to the site 18CH603 (Concrete and corrugated iron wall) gate.

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat bottomed.

Stern Configuration: Square.

Propulsion System: Unknown, but probably towed.

No. of Masts: None.

No. of Screws: None.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

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Concrete: None.

Stempost: Not determined.

Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Work platform, cargo hauling.

Flora & Fauna: The site is lightly covered with patches of vegetation.

Comments: The hulk may have been employed in the Burning Basin during its construction or after the basin was completed and placed in service in 1942-43. It was first documented on site well after 1952.

Site State No.: 18CH595.

Site Field No.: 71.

Army Engineers No.: None.

Transect: 3.

Location: 38°28.157 - 77°15.475.

Site Class: Historic.

Site Type: Merchant vessel (steamship) fragmentary hull section.

Condition: Broken up, fire damaged, and lying submerged.

Orientation: Scattered about a central piece, at the northern end of 18CH599 (Earthen berm).

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: On the northwest side of the Burning Basin, beside 18CH599.

Hull Remains: Wood, plank on frame.

Hull Configuration: Not determined.

Stern Configuration: Not determined.

Propulsion System: Not determined.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: None.

No. Bulkheads: Not determined.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

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Flora & Fauna: None.

Comments: This fragmentary section of a ship's hull is a duplicate form similar to many hulls encountered in Transect 2.

Site State No.: 18CH596.

Site Field No.: 73.

Army Engineers No.: None.

Transect: 3.

Location: 38°28.63 - 77°16.460.

Site Class: Historic.

Site Type: Merchant vessel (steamship) fragmentary hull section.

Condition: Broken up, fire damaged, and lying in the nearshore shoals.

Orientation: -

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: In the northwest sector of the Burning Basin, near the western extremity of 18CH598 (Earthen and log piling wall)

Hull Remains: Wood, plank on frame.

Hull Configuration: Not determined.

Stern Configuration: Not determined.

Propulsion System: Not determined.

No. of Masts: -

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: None.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None.

Comments: This fragment may be a broken off component of the 18CH595 hull fragment.

Site State No.: 18CH597.

Site Field No.: 98.

Army Engineers No.: None.

Transect: 3. **Location:** 38°28.110 - 77°15.520.

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Site Class: Historic.

Site Type: Small boat.

Condition: Rapidly deteriorating hull and superstructure.

Orientation: NNW to ESE, with bow facing southeast, on bearing 105°.

Identification: Unidentified.

Origin: Unknown, probably American.

Proximity: Lies against the interior Burning Basin shoreline adjacent to the entrance barrier west wall, 18CH603.

Hull Remains: Plywood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Square.

Propulsion System: Screw. Inboard engine still in hold.

No. of Masts: None.

No. of Screws: 1.

Length: 23 feet 10 inches. (Measured along starboard side).

Beam (extreme): 5 feet 3 inches. (Measured across stern).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: Extant.

Sternpost: Extant.

No. Bulkheads: Not determined.

Rudder Post: Extant. No rudder discovered.

Gudgeon/Pintals: Not determined.

Probable Service: Recreational or fishing.

Flora & Fauna: None.

Comment: The vessel contained a single cuddy cabin forward and an open end deck aft. The cuddy cabin was perforated for 2 portholes. Site has been described by Michael Humphries (p.c. 1993) as a Potomac River dory. Dr. Ralph E. Eshelman (p.c. 1994) termed it a regional recreational craft probably built ca. 1940s or 1950s.

Site State No.: 18CH598.

Site Field No.: 100.

Transect: 3.

Location: 38°28.160 - 77°15.450 to 38°28.140 - 77°15.437.

Site Class: Historic - industrial - standing structure - rural - visible ruin.

Site Type: Burning basin cofferdam wall (north section). Ethnic Association: Anglo-American.

Materials Present: Pilings and earthen berm.

Diagnostics: None.

Features Present: Yes.

Types of Features: Construction feature - ditch - earthen berm - log piling line - water gate. Method of Sampling: Non-systematic surface search. Flotation Samples: None. Soil Samples: None. Other Analysis: None.

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Comments: The wall consists of a line of wooden log pilings, backed by an earthen berm. The feature was constructed by the Bethlehem Steel Corporation in 1942-43 as part of a scrap salvage basin complex. The basin, usually referred to as the "Burning Basin", was excavated from the wetland outlet area of Marlow's Creek, after which a bypass channel was cut around the northern side of the basin. An earthen berm was erected on the inside of the bypass to separate the basin from the bypass. Gates were built at the northern and southern extremity of the basin. When the south gate was opened, ships could be floated in, then the gates would be closed, and the basin pumped dry so that the hulks could be burned down and stripped more efficiently and completely. When the gates were closed, the flow of the creek was circumvented around the north side of the berm bypass wall to exit into Mallows Bay. The north cofferdam wall appears to be the only sector of the basin containment area that was reinforced by a log piling wall. Many of the pilings have collapsed into an eroding ditch that now divides the remnant of the berm and the piling line. Although the gate area is permanently open now, it is gradually silting in. The wall itself, now serves as a visible barrier between the Marlow's Creek wetland to north and the Burning Basin harbor. The earthen berm measures 246 feet in length from its northwestern extremity to a parallel terminal point at the southeastern extremity of the piling wall, and 104 feet more to its connecting point with the upland terrace. It ranges in elevation from only a few inches at its northwest extremity to 5 feet at its highest elevation, and is covered by second growth vegetation and small shrubs. The adjacent piling wall extends in a straight line 255 feet in length. In the eroded gap between the piling wall and the berm lay many pilings and timbers that have collapsed over time. In many places the piling wall appears to have been supported by wooden stretcher planks extending from the berm. All of the stretchers have collapsed into the gap. Timber fragments and piling stubs noted beneath the soils of the berm in the NW section suggest the piling wall-berm structure may have once extended across a portion of the current outlet of Marlow's Creek that now feeds into the Burning Basin.

Site State No.: 18CH599.

Site No.: 118.

Transect: 3.

Location: 38°28.160 - 77°15.480 to 38°28.140 - 77°15.205.

Site Class: Historic - industrial - standing structure - rural - visible ruin.

Site Type: Burning basin cofferdam wall (northwest section).

Ethnic Association: Anglo-American.

Materials Present: Earthen berm.

Diagnostics: None.

Features Present: Yes.

Types of Features: Construction fabric - ditch - berm.

Method of Sampling: Non-systematic surface search.

Flotation Samples: None.

Soil Samples: None.

Other Analysis: Visual.

Comments: The wall is constructed of earth along the western side of the Burning Basin. The feature was constructed by the Bethlehem Steel Corporation in 1942-43 as part of the Burning Basin scrap salvage operations hull reduction area. The basin was excavated from the outlet area of Marlow's Creek, and a channel cut around the northern side of the basin. An earthen berm was erected on the inside of the channel, and gates built at the northern and southern extremity of the basin. An earthen berm was also erected along the northwest sector, along the outer side of which water from Marlow's Creek flowed to an outlet on the Potomac River. When the gates were closed, the basin could

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be pumped dry, and the flow of the creek circumvented around the north side of the basin. When the south gate was opened, ships could be floated in, then the gates would be closed, and the basin pumped dry so that the hulks could be burned down and stripped more efficiently with a maximum of materials recovered. This section of the basin berm is all that remains of the original wall in the sector. Diver investigation of the site resulted in the discovery of a section of cable projecting from the berm underwater, and fragments of wooden steamships nearby. Their discovery led to an initial conclusion that the site was that of a wooden steamship that had completely disintegrated, leaving only the fill soils left to hold it in place. This assessment was corrected upon the discovery of information regarding the construction of the coffer wall around the basin and aerial photos, ca. 1943, showing the canal circumventing the basin. The site is slowly eroding away.

Site State No.: 18CH602.

Site Field No.: 125.

Army Engineers No.: None.

Transect: 3.

Location: 38°28. 160 - 77°1 5.470.

Site Class: Historic.

Site Type: Wooden steamship hull fragment.

Condition: Broken from a ship's hull, but in a good state of preservation as a whole.

Orientation: East-west.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Lies in the northern sector of the Burning Basin transect between 18CH595 (steamship hull fragment) and 18CH596 (steamship hull fragment).

Hull Remains: Wood, plank on frame.

Hull Configuration: Not determined.

Stern Configuration: Not determined.

Propulsion System: Screw.

No. of Masts: Not determined.

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: Not determined.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Fishing/recreational.

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Flora & Fauna: Cargo carrier.

Comment: This large piece, approximately 11 feet in length and 6 feet in width is undoubtedly a fragment of the many ships broken up in the burning basin by Bethlehem Steel during WWII.

Site State No.: 18CH603.

Site Field No.: 132.

Transect: 3.

Location: 38°28.080 - 77°15.000.

Site Class: Historic - industrial - transportation - rural standing structure - visible ruins.

Site Type: Concrete structure - corrugated iron structure - earthen berm.

Ethnic Association: Anglo-American.

Materials Present: Architecture.

Diagnostics: None.

Features Present: Yes.

Types of Features: Concrete wall, corrugated iron retaining wall, and earthen berm.

Method of Sampling: None.

Flotation Samples: None.

Soil Samples: None.

Other Analysis: Archival.

Comments: This earth, iron, and concrete structure was erected by the Bethlehem Steel Corporation ca. 1942-43 to form the gateway to the industrially excavated Burning Basin. The basin was built to facilitate the rapid and complete reduction of the USSB fleet in Mallows Bay by fire. An earthen wall was erected on the south end of the basin, reinforced in its central sector by corrugated iron plates. On the easternmost extremity of the site, a reinforced concrete wall and gateway was erected. The opening of the gateway was 48 feet across, and wide enough to permit passage through of the widest USSB wooden steamship hulls. No archival record of the actual gateway construction has been located to date, but the historic photographic record suggests that a floating gate, typical of many drydock gates employed from colonial times to the present day, was used to seal off the basin when required. A 1944 Army Engineers plan of the area indicates that a small pump house was erected between 1942 and 1944 on the berm 50 feet from the western end of the gateway. Investigation of the extant remains of the berm failed to yield any evidence of the pump house, although a small iron weight was recovered from the berm and was determined to be of limited diagnostic value. The weight is in the possession of Dr. Ralph E. Eshelman, of Solomons, Maryland.

Site State No.: 18CH608.

Site Field No.: 122.

Transect: 3.

Location: 38°28.120 - 77°15.520 to 38°28.115 - 77°15.520.

Site Class: Historic - rural - visible ruins.

Site Type: Debris field.

Ethnic Association: Probably Anglo-American.

Materials Present: Vessel debris field.

Diagnostics: None.

Features Present: Yes.

Types of Features: Vessel fragments.

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Method of Sampling: Non-systematic surface search.

Flotation Samples: None.

Soil Samples: None.

Other Analysis: None.

Comments: This site is located at the head of a tiny gut near the entrance to the Burning Basin, and on the inside of the earthen berm forming the western half of 18CH603 (Concrete and corrugated iron wall). A variety of small craft shipwreck fragments lay on and beneath a mudflat here, exposed only at MLW. Owing to the difficulty of accessing the features, it is uncertain if they constitute portions of a single vessel, or are the debris from a number of vessels. It is also uncertain if they originated at the present site, or migrated there, driven by wind and water. Most of the material viewed from the shore suggests that they relate to small craft rather than the large wooden steamships that were brought into the basin for scrap reduction operations. Owing to the alterations of the landscape in this sector during World War II, it is likely that any vessel remains lying in this section were deposited after 1942 (although they may well be from vessels constructed during some earlier period).

Site State No.: 18CH610.

Site Field No.: 124.

Army Engineers No.: None.

Transect: 3.

Location: 38°28.145 - 77°15.445.

Site Class: Historic.

Site Type: Ex-patrol boat.

Condition: Resting upon keel on a 45° starboard list. The hull largely intact in 1996 and above water, with deck and superstructure extant, has been rapidly disintegrating. Stern and midships in advanced state of decay.

Orientation: Northwest-southeast, with bow facing southeast, on bearing 137°.

Identification: *Chester?*.

Origin: Unknown, probably American.

Proximity: Lies on the eastern extremity of the burning basin, almost against the west side of 18CH598 (earthen and log piling wall).

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Square.

Propulsion System: Screw.

No. of Masts: None.

No. of Screws: 1.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Unknown.

Draft: Unknown.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: Extant.

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Sternpost: Not determined.

No. Bulkheads: Not determined.

Rudder Post: Not determined.

Gudgeon/Pintals: Not determined.

Probable Service: Fishing/recreational/institutional.

Flora & Fauna: None.

Comment: A pipe fitting found projecting from the engine bore the imprint "WPC 1945". The numbers may either be a date, a manufacturer's serial number, or some or serve some other identifying purpose. Oral tradition suggests the vessel to have seen service as a U.S. Coast Guard vessel until sold out of service. She was long a waterfront feature at the Alexandria, Virginia, waterfront from which she operated as a Sea Scout boat until finally abandoned in the basin. [Reed Scott, 1992 and Fred Tilp, 1982, p.c.].

Site State No.: 18CH562.

Site Field No.: 76.

Army Engineers No.: None.

Transect: 4.

Location: 38°28.055 - 77°15.535.

Site Class: Historic.

Site Type: Small watercraft (type unknown).

Condition: Poorly preserved, only minimal features extant.

Orientation: East-west.

Identification: Unidentified.

Origin: Unknown, probably American.

Proximity: Approximately 120 yards from the entrance to the Burning Basin, with 18CH606 lying to approximately 50 feet to the northeast.

Hull Remains: Wood, plank on frame.

Hull Configuration: Not determined.

Stern Configuration: Not determined.

Propulsion System: Not determined.

No. of Masts: Not determined.

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: None.

No. Bulkheads: None.

Rudder Post: None.

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Gudgeon/Pintals: None.

Probable Service: Fishing or recreation.

Flora & Fauna: None.

Comment: This site is only fragmentary but appears to be a discrete vessel distinct from other fragmentary vessel remains lying in close proximity.

Site State No.: 18CH604.

Site Field No.: 50.

Army Engineers No.: None.

Transect: 4.

Location: 38°28.065 - 77°15.525.

Site Class: Historic.

Site Type: Houseboat on pilings.

Condition: Remains were found in 1986 situated on pilings. By 1994 they had begun to collapse, and by 1998 had entirely disintegrated.

Orientation: East-west.

Identification: Unidentified.

Origin: Unknown.

Proximity: Lying adjacent to the channel on the entrance approach to the Burning Basin.

Hull Remains: Wood, plank on frame.

Hull Configuration: Flat-bottomed.

Stern Configuration: Square.

Propulsion System: Not determined.

No. of Masts: None.

No. of Screws: Not determined.

Length: Not determined.

Beam (extreme): Not determined.

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Nails.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: None.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Domicile.

Flora & Fauna: Beneath the structure, mounds of clam and oyster shells could be seen [1994] in the shoally water.

Occupation and visitation by reptiles and birds were evidenced by snake skins, feathers, animal feces, bird nests, and broken bird eggs found scattered throughout the interior and on the deck.

Comments: This site, according to the late historian Fred Tilp, may have once served as a floating brothel, servicing the

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scrapers and salvors who worked in Mallows Bay [Tilp, p.c. 1982]. Nearly intact until the mid-1990s, the site was a modest structure, reportedly last owned by the Tantallon Hunt Club, and employed as a field cabin. It stood only several feet out of the water, having been placed on pilings, and was last painted white on its sides, with blue trim and facings. A slatted skirt once surrounded its lower side, concealing the pilings beneath. The structure was but a single story high, with doorways on both sides at the stern, and 10 louvered windows on each side. The interior was divided into 7 small rooms, revealing usage for many purposes. A living room, replete with a brick fireplace at its stern end wall, and extensive shelving, was cluttered with debris and trash dating from the 1950s to the present, as well as several 48-inch homemade iron-fluked anchors, apparently stored there by local watermen. With the recent collapse of the superstructure, these anchors have been salvaged and were last in the possession of Captain Reed Scott, former manager of the Mallows Bay Boat Club. A bedroom with a small wooden bed built into the wall, and another room, also probably a bedroom, were (1994) filled with eel traps in their last stages of collapse. Two more rooms were of undetermined service but may also have been employed as sleeping quarters. There was also a bathroom with a shower stall and sink, and a miniscule kitchen at the stern. A narrow walkway surrounded the entire structure at deck level, and on the western end, the remnants of a porch were in evidence. Five mattress spring sets hung from the porch into the water. Water storage tanks, and fuel tanks for cooking and possibly power, as well as pipes for a plumbing system, were in evidence below the deck. This structure collapsed or was among the many vessels destroyed by the Maryland Derelict Removal Program ca. 1996.

This site, though claimed by Tilp to have served as a Potomac River brothel, or "Ark," does not appear in the 1952 aerial photos of the area. Nor do any features found on the wreck pre-date the 1950s. The wooden houseboat design, however, is quite similar to those documented at Alexandria and employed as brothels. No proof, documentary or archaeological, has yet been located indicating that the site served as anything other than a recreational domicile for a hunting club, identified by one informant [Reed Scott, p.c. 1994] as the Tantallon Hunt Club, that may have been moved to its present location and stabilized it atop pilings.

Site State No.: 18CH605.

Site Field No.: 62.

Army Engineers No.: Schooner.

Transect: 4. **Location:** 38°28.027 - 77°16.130.

Site Class: Historic.

Site Type: Schooner

Condition: Resting on keel. Entirely submerged and largely disintegrated except along the keel and centerboard line.

Orientation: North-south, with bow facing south, on bearing (approximate) 310°.

Identification: Unidentified.

Origin: Unknown, probably American.

Proximity: Lies squarely in the entrance to Liverpool Cove.

Hull Remains: Wood, plank on frame.

Hull Configuration: Centerboard.

Stern Configuration: Not determined.

Propulsion System: Sail.

No. of Masts: 2.

No. of Screws: Not determined.

Length: 89 feet 5 inches.

Beam (extreme): Not determined.

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Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron and wood.

Strapping: None.

Concrete: None.

Stempost: Not found.

Sternpost: Not found.

No. Bulkheads: None.

Rudder Post: Not found.

Gudgeon/Pintals: None.

Probable Service: Unknown, possibly commercial fishing vessel.

Flora & Fauna: None

Comments: This site lies in 5 feet of water and is exposed only during blowouts of the embayment. The vessel may be one of those abandoned by the fishery operations at Liverpool Point in the 1923-26 period. This wreck has been in its present location since at least 1929, and quite probably longer. Its position coincides roughly with one of several islands erected from spoil removed from the Burning Basin excavation in 1942-43 and employed to create several island in and around Liverpool Cove. It is possible the vessel may have served to help hold the island walls from eroding.

Site State No.: 18CH606.

Site Field No.: 75.

Army Engineers No.: None.

Transect: 4.

Location: 38°28.062 - 77°15.530.

Site Class: Historic.

Site Type: Workboat.

Condition: Awash and poorly preserved: only minimal features extant, consisting of a winch and portion of deck.

Orientation: East-west.

Identification: Unidentified.

Origin: Unknown, probably American.

Proximity: Approximately 100 yards from the entrance to the Burning Basin, with site 18CH604 (Houseboat on pilings) lying approximately 75 feet to the northeast, and 18CH562 (small craft) approximately 50 feet to the southwest.

Hull Remains: Wood.

Hull Configuration: Not determined.

Stern Configuration: Not determined.

Propulsion System: Not determined.

No. of Masts: 1 verified.

No. of Screws: Not determined.

Length: 25 feet extant.

Beam (extreme): 9 feet 9 inches extant.

Depth of Hold: Not determined.

Draft: Not determined.

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Room & Space: Not determined owing to lack of frames.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: None.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Fishing.

Flora & Fauna: None.

Comment: Lying in less than 2 feet of water, this site's most prominent feature is a well preserved winch, still bolted to a small fragment of the deck. The site is surrounded on its shoreward (eastern) extremity by small piles of river cobble, similar to cobble found along the immediate shore. On the opposite side lies a small spread of gray river cobble, each stone measuring 6 inches to 1 foot in diameter. It is unclear whether the cobble was part of a small jetty or may have served to weight the wreck down. Owing to the lack of hull remains at the site, it is probable that the deck and winch may have been separated from the hull (which may lie undiscovered elsewhere) during bad weather or by wreckers.

Both ends of the wreck are 7 feet 7 inches wide, but the midsection is 9 feet 9 inches across. The overall length of the extant remains is 25 feet. The winch was found bolted to the deck 1 foot from the western end of the wreck. The winch is 3 feet in diameter, and of the type commonly employed in workboats from the beginning of the 20th century onward. No serial numbers, manufacturer's marks, or identification plates of any type were found upon it. Four feet to the east of the winch, a small round hole, 9 inches in diameter, was found cut through the deck for a mast step. A very slight impression for a hatch cover was also noted, but could not be verified.

Site State No.: 18CH607.

Site Field No.: 121.

Transect: 4.

Location: 38°28.093 - 77°16.562.

Site Class: Historic - rural - visible ruins.

Site Type: Debris field.

Ethnic Association: Unknown.

Materials Present: Vessel debris field.

Diagnostics: None.

Features Present: Yes.

Types of Features: Vessel fragments.

Method of Sampling: Non-systematic surface search.

Flotation Samples: None.

Soil Samples: None.

Other Analysis: None.

Comments: This site is located at the head of a tiny gut near the entrance to the Burning Basin, and on the outside of the earthen berm forming the western half of 18CH603 (Concrete and corrugated iron wall). A variety of small craft shipwreck fragments lay on and beneath a mudflat here, exposed only at MLW. Owing to the difficulty of accessing the features, it is uncertain if the site constitutes portions of a single vessel, or the debris from a number of vessels. It

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is also uncertain if they originated at the present site, or migrated there, driven by wind and water. Owing to the alterations of the landscape in this sector during World War II, it is likely that any vessel remains lying in this area were deposited after 1942 (although they may well be from vessels constructed during some earlier period).

Site State No.: 18CH608.

Site Field No.: 77.

Army Engineers No.: None.

Transect: 4.

Location: 38°27.350 – 77°16.110.

Site Class: Historic.

Site Type: Commercial fishing vessel.

Condition: Resting on keel, but listing to starboard. Intact until 1995 Derelict Removal program reduced the extant and exposed superstructure and hull. Site now consists of submerged hull remains along the keel line and some disarticulated machinery.

Orientation: Southeast-northwest.

Identification: *Mementau*.

Origin: Beaufort, North Carolina. Built for the Gulf Menhaden Company.

Proximity: At Liverpool Point, approximately 200 feet south of the piling remains of the Liverpool Point steamboat wharf remains, with the bow lying on the shore.

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Round.

Propulsion System: Screw.

No. of Masts: 1.

No. of Screws: 2.

Length: 121.7 feet.

Beam (extreme): 20.6 feet.

Depth of Hold: 9.8 feet.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron and wood.

Strapping: None.

Concrete: None.

Stempost: Extant until 1995.

Sternpost: Extant until 1995.

No. Bulkheads: 2 visible.

Rudder Post: Extant until 1995.

Gudgeon/Pintals: Extant until 1995.

Probable Service: Fishing.

Flora & Fauna: River otter and beaver occupied the hold area, osprey occupied a nest atop the mast.

Comment: *Mementau*, constructed at Reedville, Virginia, prior to World War II, was abandoned in its current location ca. 1985 after having been anchored and abandoned in the Mallows Bay area and then taken up as a residence by an unknown individual. It is reported by local informants that the vessel was driven from its anchorage and onto the

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shore at Liverpool Point during a storm, and finally abandoned by its last occupant. [Reed Scott, p.c. 1993]. Initial investigation of the site on 17 July 1993 revealed that the ship was in a substantial state of preservation, even though it was hard aground by the bow, and listing at a 30° angle. The circular pilot house, officers cabins, crew cabins, and other facilities were still intact,

Site State No.: 18CH609.

Site Field No.: 96.

Army Engineers No.: None.

Transect: 4.

Location: 38°27.597 - 77°16.002.

Site Class: Historic.

Site Type: Centerboard 5-log canoe.

Condition: Largely broken up except along the centerboard line. Three of 5 (possibly 7) logs, some framing, and portions of the centerboard box are extant. A 4th log lay in the nearshore, disarticulated from the main wreck area.

Orientation: West-northwest by south-southeast, on bearing 225°.

Identification: Unidentified.

Origin: Unknown, probably American.

Proximity: The site lies on the southwestern shore of Liverpool Cove, approximately 50 feet from 18CH615 (Small boat) to the southwest, 75 feet from a wreck debris field on the south, and 50 feet from the MLW mark on the shore. Portions of one end of the site are visible only during MLW.

Hull Remains: Log canoe, shell first construction.

Hull Configuration: Centerboard.

Stern Configuration: Not determined.

Propulsion System: Sail.

No. of Masts: Not determined.

No. of Screws: None.

Length: 50 feet (extant remains).

Beam (extreme): 3 feet (extant remains)

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Square iron nails, and iron pins.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: None.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Fishing or light freight hauling.

Flora & Fauna: None.

Comment: Water depth over the site at MLW is 1 foot. Two extant frames still fitted to keel log and remaining frame log. The centerboard well is 14 feet 7 inches in length, and 3.5 inches wide, sided by 1-inch planks. The well slot is cut

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through the center of the keel log, with boxing mounted around it, and held in place by iron pins driven vertically through to the board ends. One of the 2 extant frames, which were undoubtedly added after the logs were joined in the traditional log canoe construction mode, was carved, with a lip protruding from its topside. Whether the logs were held together by mortis-and-tenon or bolted was undetermined. No butterfly fittings were discovered. The general fittings were iron pins. No wooden treenails were discovered. Several loose iron pins were noted lying about the hull. The 3 extant log planks (keel log, garboard log, and wing log) are in an advanced state of deterioration, primarily resulting from water erosion. A 4th log, possibly the second garboard log, replete with frame fragments and pins still assembled, was discovered 6 feet off the southern side of the wreck, but buried too deeply in the mud to permit examination except by touch. A single small knee fragment was also discovered lying disarticulated on the south end of the hull.

A debris field, consisting primarily of 3 boat wooden boat frames, entirely unrelated to the log canoe site, were noted to the south of 18CH609, and approximately 10 feet apart. These may have been related to one of the other schooner wrecks discovered in the cove, or possibly to an undiscovered site. 18CH609 is conjecture to possibly be the bugeye schooner *Bessie Lafayette*, or one of the several vessels abandoned by the fisheries operations ca. 1926. The site is in the same location as one of 2 schooners indicated in Liverpool Cove in the 11 August 1929 Army Engineers chart of the Mallows Bay grounding area and adjacent waters.

Site State No.: 18CH612.

Site Field No.: 107.

Army Engineers No.: None.

Transect: 4.

Location: 38°28.011 - 77°15.562.

Site Class: Historic.

Site Type: Merchant vessel (steamship).

Condition: Resting on keel. Some scatter. The forward half of the vessel is extant to a maximum elevation of 5 feet, but averages 2 feet. The aft half is extant along the keel line with only some hull and bottom plank timbers extant below but not above water.

Orientation: North-south, with bow facing south, on bearing 180°.

Identification: Unidentified.

Origin: United States Shipping Board.

Proximity: Lies on the eastern shore of Liverpool Cove, with its port side drawn hard up on the shore.

Hull Remains: Composite (metal frames with wood hull).

Hull Configuration: Keel, flat bottomed.

Stern Configuration: Sharp.

Propulsion System: Screw.

No. of Masts: -

No. of Screws: Not determined.

Length: 166 feet 6 inches (extant).

Beam (extreme): 34 feet.

Depth of Hold: Unknown.

Draft: Unknown.

Room & Space: Not determined.

Fasteners: Iron.

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Strapping: None.

Concrete: None.

Stempost: Extant.

Sternpost: None.

No. Bulkheads: 6teen foundations extant.

Rudder Post: None. No rudder discovered.

Gudgeon/Pintals: None.

Probable Service: Cargo carrier.

Flora & Fauna: None onboard. Port side being encroached by soils, and light vegetation.

Comment: This site is the only composite ship located to date in Mallows Bay. A total of 7 of the 26 known composite vessels built during and after World War II for the USSB are known to have been brought into Mallows Bay prior to October 1929, 6 of which were destined for final reduction. These vessels included: *Balino*, *Battonville*, *Borad*, *Bostford*, *Dalgada*, *Obak*, and *Tuwetanka*. *Battonville* and *Borad* were reportedly removed to Philadelphia, although no final documentation on the move has been located to date. *Bostford* and *Obak* were employed as barracks ships at Sandy Point, and their fortunes are unknown, although they are indicated as beached at Sandy Point in 1929. *Dalgada* and *Tuwetanka* were reduced prior to August 27, 1929 and do not appear on the Army Corps of Engineers map of Mallows Bay by name. *Balino*'s fate is unknown. Another composite vessel, the ex-USS *Nokomis*, was also brought into Mallows Bay for reduction by the Bethlehem Steel Corporation during World War II, but this vessel's beam (31 feet 10 inches) fails to match that of 18CH612. It is thus possible that 18CH612 is either *Balino*, *Bostford*, or *Obak*, although it may be another as-yet-unidentified composite which arrived amidst as many as 37 unidentified vessel that may have been brought into the embayment during the WM&SC regime.

This hull has been in its present location since at least 1944.

Site State No.: 18CH613.

Site Field No.: 111.

Army Engineers No.: None.

Transect: 4.

Location: 38°28.013 - 77°16.013.

Site Class: Historic. Site Type: Fishing skiff.

Condition: Resting on keel, ashore on dry land. Broken up, most of stern gone but bow is intact.

Orientation: North-south.

Identification: Unidentified.

Origin: Unknown. Probably Anglo-American.

Proximity: Lies on the western shore of Liverpool Cove, just inland from the beach, approximately equidistant from 18CH610 (Building foundation) and 186H611 (Building foundation). [Note: Neither of these sites are part of the nomination area].

Hull Remains: Wood, plank on frame.

Hull Configuration: Keel.

Stern Configuration: Square.

Propulsion System: Oar and/or outboard engine.

No. of Masts: None.

No. of Screws: None.

Length: 18 feet (estimated)

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Beam (extreme): 6 feet (estimated)

Depth of Hold: 2 feet extant.

Draft: 6 inches (estimated).

Room & Space: Not determined.

Fasteners: Machine wire nails.

Strapping: None.

Concrete: None.

Stempost: Extant.

Sternpost: Not extant.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Fishing, recreational, or small service.

Flora & Fauna: None.

Comment: Only the forward 10 feet of the hull, which lies approximately 20 feet from the beach, remains. The site may be related to fishing activities based at Liverpool Point. Vessel lies amidst a wooded area that is too thickly overgrown with forest cover to have been cast up in a storm or tides, and appears to have been hauled in and abandoned. The lines are typical of small oar powered boat types still found operative in the Chesapeake Tidewater but which were typically produced from the 1920s to the 1950s. The hull is fastened with wire nails, so the site is certainly of the post-Civil War era, and most likely of 20th century manufacture.

Site State No.: 18CH614.

Site Field No.: 112.

Army Engineers No.: None.

Transect: 4. **Location:** 38°28.005 - 77°16.010.

Site Class: Historic.

Site Type: Centerboard Schooner.

Condition: Entirely buried below grade. Site appears to have collapsed outward, with frames lying level with ground. The centerboard boxing foundation stands above the grade. The site is normally underwater and in a nearshore environment only infrequently exposed by extreme low tides or blowouts.

Orientation: North-south, bearing not determined.

Identification: Unidentified.

Origin: Unknown.

Proximity: Lies on the western shore of Liverpool Cove, and immediately to the north of 18CH615 (Small boat)

Hull Remains: Wood, plank on frame.

Hull Configuration: Centerboard.

Stern Configuration: Sharp.

Propulsion System: Sail.

No. of Masts: 2 (?).

No. of Screws: None.

Length: 75 feet.

Beam (extreme): 22 feet (estimated).

Depth of Hold: Not determined.

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Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: Extant.

Sternpost: Not extant.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Fishing or cargo hauling.

Flora & Fauna: None.

Comment: The centerboard is still extant within the box. The site was exposed by a freak blowout of the embayment, and was visible for less than 3 hours. It now lies again buried beneath sediments that have covered the local nearshore. This vessel may be among those abandoned by the Morgan Monroe fishery operations ca. 1926.

Site State No.: 18CH615.

Site Field No.: 113.

Army Engineers No.: None.

Transect: 4. **Location:** 38°27.597 - 77°16.005.

Site Class: Historic.

Site Type: Small boat (Longboat?).

Condition: Entirely buried below grade. The painter and port side are only slightly exposed. The site is normally underwater but in a nearshore area infrequently exposed by extreme low tides or blowouts.

Orientation: North-south, bearing not determined.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies on the western shore of Liverpool Cove, and immediately to the south of 18CH614.

Hull Remains: Wood, plank on frame.

Hull Configuration: Double ended smallboat, possibly longboat.

Stern Configuration: Not determined.

Propulsion System: Oar.

No. of Masts: Not determined.

No. of Screws: None.

Length: 25 feet 2 inches.

Beam (extreme): 6 feet (estimated).

Depth of Hold: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Copper and bronze.

Strapping: None.

Concrete: None.

Stempost: Extant.

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Sternpost: Not extant.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Unknown.

Flora & Fauna: None.

Comment: This site is buried in the beach beneath soils that are normally submerged. The site was exposed by a freak blowout of the embayment, and was visible for less than 3 hours. It remains buried beneath sediments that have covered the local nearshore. The wreck may be one of those abandoned by the Morgan Monroe fishery operations at Liverpool Point in 1926, but may also be a candidate for a longboat belonging to the Virginia State Navy row galley *Protector*, which was stove in and abandoned during a military engagement on July 22, 1776. The 18CH615 (Small boat) site is the only small craft encountered with copper nails and bronze pins for fastenings.

Site State No.: 18CH616.

Site Field No.: 114.

Army Engineers No.: None.

Transect: 4.

Location: 38°27.583 - 77°156.590.

Site Class: Historic.

Site Type: Schooner,

Condition: Resting on keel. Lower hull, frames, centerboard, and mast step extant but in poor condition.

Orientation: North-south, with bow facing north.

Identification: Unidentified.

Origin: Unknown. Probably American.

Proximity: Lies off the southern shore of Liverpool Cove, off the outlet of Liverpool Creek, with a distance from the centerboard box to the nearest shore point measured at 45 feet. 18CH609 (Centerboard log canoe) lies 86 feet off to the northwest.

Hull Remains: Wood, plank on frame.

Hull Configuration: Centerboard, sharpie.

Stern Configuration: Sharp.

Propulsion System: Sail.

No. of Masts: 1.

No. of Screws: None.

Length: 46 feet 10 inches.

Beam (extreme): 14 feet (extant).

Depth of Hold: 3 feet (estimated).

Draft: Not determined.

Room & Space: Irregular spacing between frames.

Fasteners: Iron and wood.

Strapping: None.

Concrete: None.

Stempost: Extant.

Sternpost: Not extant.

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No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Fishing, possibly employed as a turtle scrape.

Flora & Fauna: None.

Comment: This double ended craft has a flat bottom, with 2 mast steps, set 2 feet and 34 feet aft the bow. The intact centerboard well is 12 feet 8 inches in length, with at least the upper section of the centerboard still present. The centerboard box is 13 feet 3 inches in length. The extant architecture suggests a sharpie design. The sharpie, a distinctive watercraft built during the last quarter of the 19th century, varied in length from between 20 to 35 feet, but occasionally reached 65 feet or more, and was usually a 2-masted rig. Its rise in popularity, mostly among oyster tongers of Long Island Sound, began in the fisheries at New Haven, Connecticut, in the 1870s. The design was introduced to the Chesapeake during the early 1870s and was usually rigged with 2 leg-of-mutton sails, using sprits instead of booms, mounting a short bowsprit, and an outboard rudder on a skeg. The Potomac River sharpies ranged in length from 18 to 28 feet, and were used mainly for oyster and crab scrapes, with a few reaching 38 feet. If this site is indeed a sharpie of the period, it is the largest on record in the Chesapeake.

The remnants of a centerboard box for another vessel, as well as a rudder assemblage (18CH617), neither of which are believed to be associated with 18CH616, were found aft the stern.

Site State No.: 18CH617.

Site Field No.: 115.

Transect: 4.

Location: 38°27.580 - 77°15.582.

Site Class: Historic - transportation - above and below grade.

Site Type: Artifact concentration.

Ethnic Association: Unknown.

Materials Present: Components of a wooden vessel's rudder, and possibly parts of a buried vessel.

Diagnostics: None.

Features Present: Yes.

Types of Features: Wooden rudder.

Method of Sampling: Survey measurements and drawing of extant feature area. No sampling.

Flotation Samples: None.

Soil Samples: None.

Other Analysis: None.

Comments: This disarticulated section of a small watercraft's wooden rudder lay on and beneath a small sandbar in Liverpool Cove, at the outlet of Liverpool Creek, and immediately south of site 18CH616 (Log canoe fragment). It is possible that it may be a component of a nearby wreck that has broken off and drifted ashore. Its condition is extremely fragile and, when measured and drawn in 1994, was in an advanced state of disintegration. Probing in the immediate vicinity with iron rods indicated the potential for remains of a wooden structure in the area, possibly a small vessel or fragment thereof. As this sector of the shoreline is abundant with wooden vessel debris, primarily from small watercraft (as opposed to the larger fragments of USSB vessels), it is possible that this rudder assemblage may be part of a buried vessel that drifted in and became covered by the encroaching shoreline. It is also possible the rudder may be a component of either sites 18CH609 (Centerboard log canoe) or 18CH616 (Centerboard sharpie), or some other schooner wreck in the cove.

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Site State No.: 18CH618.

Site Field No.: 116.

Army Engineers No.: None.

Transect: 4.

Location: 38°27.575 - 77°1 56.595.

Site Class: Historic.

Site Type: Fragment of a log canoe section.

Condition: A heavily weathered section, reduced by water erosion.

Orientation: North-south.

Identification: Unidentified.

Origin: Unknown.

Proximity: Lies off the southwestern shore of Liverpool Cove, off the outlet of Liverpool Creek.

Hull Remains: Wood, shell first construction.

Hull Configuration: Unknown.

Stern Configuration: Not determined.

Propulsion System: Not determined.

No. of Masts: Not determined.

No. of Screws: None.

Length: 42 feet 6 inches (extant). Width: 2 feet at the widest point (extant).

Thickness: 1 inch average (extant).

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: None.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Not determined.

Flora & Fauna: None.

Comment: This section of a shell-first constructed vessel probably belongs to a log canoe, bug-eye, or brogan. It was held together with pins fitted along the axis of the thin sides, or by mortise joinery. It is possible that the fragment is a component of 18CH616 (Centerboard sharpie) that has drifted off.

Site State No.: 18CH619.

Site Field No.: 117.

Army Engineers No.: None.

Transect: 4.

Location: 38°27.572 - 77°156.582.

Site Class: Historic.

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Site Type: Keel of a small wooden vessel.

Condition: Resting on the keel, weather-worn and disintegrating.

Orientation: East-west.

Identification: Unidentified.

Origin: Unknown.

Proximity: Lies off the southwestern shore of Liverpool Cove, off the outlet of Liverpool Creek.

Hull Remains: Wood, plank on frame.

Hull Configuration: Unknown.

Stern Configuration: Not determined.

Propulsion System: Not determined.

No. of Masts: Not determined.

No. of Screws: None.

Length: 67 feet 7 inches. Width: 6 feet 9 inches at the widest point.

Thickness: Not determined.

Draft: Not determined.

Room & Space: Not determined.

Fasteners: Iron.

Strapping: None.

Concrete: None.

Stempost: None.

Sternpost: None.

No. Bulkheads: None.

Rudder Post: None.

Gudgeon/Pintals: None.

Probable Service: Not determined.

Flora & Fauna: None.

Comment: This section, once believed to belong to a USSB vessel, is far too small in form and varied in shape to be such a component. It is likely all that remains of a large working class vessel.

MARYLAND ACHAEOLOGICAL SITE'S WITHOUT DESIGNATIONS

The following includes all known archaeologically but unidentified wooden steamship sites in transects 5 within the Mallows Bay-Widewater study having no Maryland State archaeological site number. Locational designation and visible observations are given. Sequential numbers have been ascribed from north to south and are given for the approximate center midships sector of each vessel.

1. 382616.65 N, 771910.89 W.
2. 382616.03 N, 771910.58 W. (partially visible at MLW)
3. 382615.52 N, 771910.78 W.
4. 382615.05 N, 771910.84 W. (partially visible at MLW)
5. 382614.44 N, 771910.86 W.
6. 382613.93 N, 771912.81 W. (partially visible at MLW)
7. 382613.16 N, 771911.04 W.

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-
8. 382613.71 N, 771907.39 W.
9. 382611.87 N, 771912.39 W. (partially visible at MLW)
10. 382609.07 N, 771919.73 W. (visible)

APPENDICES

(A) SHIPBUILDERS OF THE EMERGENCY FLEET

In April 1918 the United States Shipping Board Emergency Fleet Corporation made public a list of the shipbuilders engaged in building vessels for the new American merchant marine. This list was comprised of 75 yards (not including 58 building steel vessels and 1 building concrete vessels), 69 wooden vessels, 5 composite vessels. In May 1919 a conference was held between shipbuilders and the U.S. Shipping Board Emergency Fleet Corporation, at which executives of 29 shipbuilding companies were present and are herein listed. Later reports to the United States Congress regarding production of all companies involved in production for the Emergency Fleet added additional yards. The below listing reflects the 1918 and 1919 compilations and additional companies noted in Congressional reports. Listed below is a total of 86 companies building wood vessels and 5 companies building composite vessels, and 27 companies building requisitioned vessels (but not including 59 building steel vessels and 6 building concrete vessels). One company is not indicated by vessel production type or location although contracts were let to it. Thus, a total of 118 companies are noted as having produced or entered into contracts for Emergency Fleet ship production.

Location of Shipyards

The complete list of the companies engaged in building merchant vessels, giving the location of the offices and works, and many officers of those companies, is as follows:

BUILDERS OF WOODEN VESSELS

Alabama Dry Dock & Shipbuilding Company, Mobile, Ala.
Allan Shipbuilding Co., Seattle, Wa.
American Shipbuilding Company, 11 Broadway, New York. (Works, Brunswick, Ga.)
Barbaro Brothers, Tacoma, Wa.
Beaumont Shipbuilding & Dry Dock Company, Beaumont, Tex.
Benicia Shipbuilding Corp., Benicia, Ca.
Coast Shipbuilding Company, 504 Concord Building, Portland, Ore.
Coos Bay Shipbuilding Company, Marshfield, Ore.
Chandler, Ralph. J., Los Angeles, Cal. (Works, Wilmington, Los Angeles, Ca.).
Continental Shipbuilding Corp., Yonkers, NY.
Cumberland Shipbuilding Company, Portland, Maine. (Works, South Portland, Me.).
Dantzler Shipbuilding & Dry Dock Company, Moss Point, Miss.
Dierks-Blodgett Shipbuilding Company, care of Dierks Lumber & Coal Company, Kansas City, Mo. (Works, Pascagoula, Miss.).
Feeney & Bremer Company, Tillamook, Ore.
The Foundation Company, Woolworth Building, New York. (Works, Passaic River, NJ).
Freeport Shipbuilding Company, Freeport, Me. (Works, South Freeport, Me.).
Fulton Shipbuilding Company, Los Angeles, Cal. (Works, Wilmington, Ca.).

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Grant Smith-Porter- [Guthrie] Company, St. Johns, Portland, Ore.
Grays Harbor M. S. Corporation, Grays Harbor, Wash. (Works, Grays Harbor, Wa.).
Groton Iron Works, 50 Broad Street; New York. (Works, Noank, Conn.), E.A. Morse, president.
Gildersleeve Ship Construction Company, Gildersleeve, Conn.
Geo. A. Gilchrist, Thomaston, Me.
Hammond Lumber Company, San Francisco, Cal. (Works, Humboldt Bay, Ca.).
Heldenfels Brothers, Beeville, Tex. (Works, near Port Aransas, Tex.)
Hillyer-Sperring-Dunn Company, Jacksonville, Fla.
Hodge Ship Company, Moss Point, Miss.
Housatonic Shipbuilding Company, Stratford, Conn.
Jahnecke Shipbuilding Company, New Orleans, La. (Works, Tchefuncta River, La.)
Johnson Shipyards Corporation, Mariners' Harbor, Staten Island, NY.
The Kelly-Spear Company, Bath, Me.
Kiernan & Kern Co., Portland, Ore.
Kingston Shipbuilding Company, Kingston, NY.
Kruse & Banks Shipbuilding Company, North Bend, Ore.
Lake & Ocean Navigation Company, 208 South La Salle Street, Chicago, Ill. (Works, Sturgeon Bay, Wis.).
Lone Star Shipbuilding Company, 111 Broadway, New York. (Works, Beaumont, Tex.).
Maryland Shipbuilding Company, Lexington Building, Baltimore, Md. (Works, Soller' s Point, Md.).
McBride & Law, Beaumont, Tex.
J.N. McCammon, Houston, Tex. (Works, Beaumont, Tex.).
McEachern Ship Co., Portland, Ore. (Works, Astoria, Ore.).
Meacham & Babcock Shipbuilding Company, Seattle, Wash. (Works, Salmon Bay, Wa.).
Merrill-Stevens Shipbuilding Corporation, Jacksonville, Fla.
Midland Bridge Company, Houston, Tex.
Missouri Valley Co., Quantico, Va.
Mobile Shipbuilding Co., Mobile, Ala.
Morey & Thomas, Box 619, Jacksonville, Fla. (Works, St. Johns River, Jacksonville, Fla.).
J.M. Murdock, Jacksonville, Fla.
Murnan Shipbuilding Corporation, Commercial Trust Building, Philadelphia, Pa. (Works, Pinto Island, Tex.)
National Shipbuilding & Dry Dock Co., Savannah, Ga.
National Shipbuilding Company, 120 Broadway, New York (Works, Orange, Tex.).
Newcomb Lifeboat Company, Hampton, Va.
Nilson & Kelez Shipbuilding Corporation, Seattle, Wa.
North Carolina Shipbuilding Company, Morehead City, NC.
Pacific American Fisheries, Bellingham, Wa.
Patterson-McDonald Shipbuilding Co., Seattle, Wa.
Peninsula Shipbuilding Company, Portland, Ore.
Portland Ship Ceiling Company, Portland, Me.
Potomac Shipbuilding Company, Colorado Building Washington. (Works, Quantico, Va.).
Pudget Sound Bridge and Dredge Co., Seattle, Wash.
Rodgers, Geo. F. & Company, Astoria, Ore.
Rolph Shipbuilding Co., Rolph, Humboldt Bay, Ca.
Russel Shipbuilding Co., Portland, Me.

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St. Helens Shipbuilding Company, San Francisco, Cal. (Works, St. Helens, Ore.).
St. Johns River Shipbuilding Co., Jacksonville, Fla.
Sanderson & Porter, 52 William Street, New York. (Works, Willapa Harbor, Wa.)
Sandy Point Shipbuilding Corporation, Sandy Point, Me.
Seaborn Shipyards Company, Seattle, Wash. (Works, Tacoma, Wa.).
L.H. Shattuck, Manchester, N.H. (Works, Piscataqua River, Portsmouth, NH).
Ship Construction & Trading Company, 50 Broadway, New York. (Works, Stonington, Conn.).
Sloan Shipyards Corporation, Olympia, Wa.
Henry Smith & Sons Company, Baltimore, Md.
Southern Dry Dock & Shipbuilding Company, Orange, Tex.
Sommarstrom Shipbuilding Company, care of Maj. C. L. Tilden, 217 Front Street, San Francisco, Cal. (Works Columbia City, Ore.)
G.M. Standifer Construction Corporation, Portland, Ore. and Vancouver, Wa.
Supple & Ballin, Portland, Ore.
Tacoma Shipbuilding Company, Tacoma, Wa.
Tampa Dock Company, Tampa, Fla. Charles H.
Tenneg & Co., Hampton, Va.
Terry Shipbuilding Corporation, Savannah, Ga.
Traylor Shipbuilding Corporation, Cornwells Heights, Pa.
Universal Shipbuilding Company, National Bank Building, Houston, Tex. (Works, Houston Ship Canal, Harris County, Tex.)
Union Bridge & Construction Company, Morgan City, La.
U. S. Maritime Corporation, Union Savings Bank Building, Washington. (Works, Brunswick, Ga.)
Venice Shipbuilding Corporation, 131 Loidesdorif Street, San Francisco, Ca. (Works, Bernica, Ca.).
Wilson Shipbuilding Company, Astoria, Ore.
Wright's Shipyards, Tacoma, Wa.
York River Shipbuilding Corporation, West Point, Va.

BUILDERS OF COMPOSITE VESSELS

Kelly Atkinson Construction Company, Security Building Chicago, Ill. (Works, Mobile, Ala.)
Merrill-Stevens Company, Jacksonville, Fla.
Mobile Shipbuilding Company, Mobile, Ala.
Supple & Ballin, Portland, Ore.
Terry Shipbuilding Corporation, Savannah, Ga., H.L. Brittain, vice president.

YARDS BUILDING REQUISITIONED SHIPS

Albina Engine & Machine Works, Portland, Ore.
Ames Shipbuilding & Dry Dock Company, Seattle, Wa.
Chester Shipbuilding Company, Finance Building, Philadelphia, Pa. (Works, Chester, Pa.), W.T. Smith, president.
Cramp, William & Sons, Ship & Engine Building Company, Philadelphia, Pa., J.H. Mull, president.
Craig Shipbuilding Company, Long Beach, Ca.
Duthie, J.F. (also noted as J.E.), & Company, Seattle, Wa.

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Fore River Shipbuilding Corporation, Quincy, Ma.
Globe Shipbuilding Company, Superior, Wis.
Great Lakes Engineering Works, Detroit, Mich., Antonio C. Pessano, chairman of the board, JR. Russel, president.
Hanlon Dry Dock & Shipbuilding Company, Oakland, Ca.
Harlan & Hollingsworth Corporation, Wilmington, De.
Manitowoc Shipbuilding Company, Manitowoc, Wis., Charles C. West, vice president and general manager, T.E. Geer, secretary and treasurer, A.T. Nash, auditor.
McDougall-Duluth Company, Duluth, Minn., A.M. McDougall, president. Samuel L. Moore & Sons, Corporation, Elizabeth, NJ.
New Jersey Shipbuilding Company, Land Title Building, Philadelphia, Pa. (Works, Gloucester, NJ)
New York Shipbuilding Corporation, Camden, NJ.
Newport News Shipbuilding & Dry Dock Company, Newport News, Va., J.T. Gauntlet, Washington representative.
Pennsylvania Shipbuilding Company, Land Title Building, Philadelphia, Pa. (Works, Gloucester, NJ).
Pusey & Jones Company, Wilmington, De.
Standard Shipbuilding Company, 44 Whitehall Street, New York, (Works, Shooters Island, NY), H.L. Dickerson, auditor, H.C. Hunter, secretary.
Staten Island Shipbuilding Company, Port Richmond, NY.
Tampa Shipbuilding Company, Tampa, Fla.
Texas Steamship Company, Bath, Me.
Toledo Shipbuilding Company, Toledo, Ohio, H.S. Wilkinson, president, Charles B. Calder, vice president and general manager.
Union Iron Works, San Francisco, Ca.
Willamette Iron & Steel Works & Northwest Steel Company, Portland, Ore.
Bethlehem Steel Corporation, South Bethlehem, Pa. (Works, Sparrows Point, Md.; Quincy, Ma.; Wilmington, De.; Elizabeth, NJ; San Francisco, Ca.) [reported in 1919 as Bethlehem Shipbuilding Corporation (Ltd.), Wilmington, De., H.C. Smith, manager.]

COMPANIES FOR WHICH SHIP CONSTRUCTION TYPES ARE NOT INDICATED

Atlantic Coast Shipbuilding Co., J.B. Carroll, assistant secretary.

(B) EMERGENCY FLEET SHIPBUILDERS BY LOCATION OF SHIPYARDS

All yards are listed first by state, then city or locale, then by company name, and finally by types of vessels produced (S for steel; W for wood; C for composite; CN for concrete; and R for requisitioned vessels). In many cases one company, such as Bethlehem Steel (or Shipbuilding) managed numerous yards in several different states and thus appear for each state and location. A number of yards produced more than one type of vessel. Central office locations are not given here, although many were at the location of the yards themselves.

ALABAMA

Mobile: Alabama Dry Dock & Shipbuilding Company [W]; Kelly Atkinson Construction Company [C]; Fred T. Ley & Co. [CN]; Mobile Shipbuilding Co. [5, W, and C].

CALIFORNIA

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Alameda: Bethlehem Shipbuilding Corporation (Ltd.) [S]. **Benicia:** Benicia Shipbuilding Corp. [W]; Venice Shipbuilding Corporation [W]. **Humboldt Bay:** Hammond Brothers Lumber Company [W]. **Long Beach:** California Shipbuilding Company [S]; Craig Shipbuilding Company [RI]; Long Beach Shipbuilding [S]. **Los Angeles:** Ralph J. Chandler [W]; Los Angeles Shipbuilding & Dry Dock Company [S]. **Oakland:** Hanlon Dry Dock & Shipbuilding [S and RI]; Moore & Scott Iron Works [S]; Rolph (Humboldt Bay): Rolph Shipbuilding Company [W]. **San Diego:** Pacific Marine Construction Co. of California [CN]. **San Francisco:** Bethlehem Steel Corporation [R]; Union Iron Works [R]; San Francisco Shipbuilding Co. [CN]; Western Pipe & Steel Company of California [S]. **Suisun Bay:** Pacific Coast Shipbuilding Company [S]; **Wilmington:** Fulton Shipbuilding Company [W]; Ralph J. Chandler [W].

CONNECTICUT

Gildersleeve: Gildersleeve Ship Construction Company [W]. **Groton:** Groton Iron Works [S]. **Noank:** Groton Iron Works [W]. **Stratford:** Housatonic Shipbuilding Company [W].

DELAWARE

Wilmington: Bethlehem Shipbuilding Corporation (Ltd.) [S and R]; Harlan & Hollingsworth Corporation [R]; Pusey & Jones Co. [S and R].

FLORIDA

Jacksonville: A. Bentley & Sons Co. [CNJ]; Hillyer-Sperring-Dunn Company [W]; Merrill-Stevens Shipbuilding Corporation [S, W, and C]; Morey & Thomas [W]; J.M. Murdock [W]; St. Johns River Shipbuilding Co. [W]. **Pensacola:** Pensacola Shipbuilding Company [S]. **Tampa:** Oscar Daniels Co. [S]; Tampa Dock Company [W]; Tampa Shipbuilding & Engineering [S]; Tampa Shipbuilding Company [R].

GEORGIA

Brunswick: American Shipbuilding Company [W]; Liberty Shipbuilding Company [CN]; U.S. Maritime Corporation [W]. **Savannah:** National Shipbuilding & Dry Dock Co. [W]; Terry Shipbuilding Corporation [W and C].

LOUISIANA

Morgan City: Union Bridge & Construction Company [W]. **New Orleans:** Doullut & Williams Shipbuilding Co. (Inc.) [S]; Jahncke Shipbuilding Company [S]. **Tchefuncta River:** Jahncke Shipbuilding Company [W].

MAINE

Bath: The Kelly-Spear Company [W]; Texas Steamship Co. [S and R]. **Portland:** Portland Ship Ceiling Company [W]; Russet Shipbuilding Co. [W]. Sandy Point: Sandy Point Shipbuilding Corporation [W]. South Freeport: Freeport Shipbuilding Company [W]. South Portland: Cumberland Shipbuilding Company [W]. **Thomaston:** George A. Gilchrist [W].

MARYLAND

Baltimore: Baltimore Dry Dock & Shipbuilding Company [S]; Henry Smith & Sons Company [W]. **Soller's Point:** Maryland Shipbuilding Company [W]. **Sparrows Point:** Bethlehem Shipbuilding Corporation (Ltd.) [S and R].

MASSACHUSETTS

Boston: Liberty Shipbuilding Company [CN]. **Quincy:** Bethlehem Shipbuilding Corporation (Ltd.) [S and R]; Fore River

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Shipbuilding Corporation [R].

MICHIGAN

Detroit: The American Shipbuilding Company [S]; Great Lakes Engineering Works [R]. **Saginaw:** Saginaw Shipbuilding Company [S].

MINNESOTA

Duluth: McDougall-Duluth Co. [S and R]

MISSISSIPPI

Moss Point: Dantzler Shipbuilding & Dry Dock Company [W]; Hodge Ship Company [W]. **Pascagoula:** Dierks-Blodgett Shipbuilding Co. [S and W]

NEW HAMPSHIRE

Portsmouth: The Atlantic Corporation [S]; L.H. Shattuck [W].

NEW JERSEY

Camden: New York Shipbuilding Co. [S and R]. **Elizabeth:** Bethlehem Shipbuilding Corporation [S and R]; Samuel L. Moore & Sons Corporation [R]. **Gloucester:** New Jersey Shipbuilding Company [R]; Pennsylvania Shipbuilding Company [R]. **Hackensack River:** Federal Shipbuilding Company [S]. Newark: Submarine Boat Corporation [S]; **Passaic River:** The Foundation Company [W].

NORTH CAROLINA

Morehead City: North Carolina Shipbuilding Company [W]. **Wilmington:** Carolina Shipbuilding Corporation [S]; Liberty Shipbuilding Company [CN].

NEW YORK

Flushing Bay [Long Island]: A.S. Fougner Concrete Shipbuilding Co. [CN]. **Kingston:** Kingston Shipbuilding Company [W]. Mariner's Harbor (Staten Island): Johnson Shipyards Corporation [W]. **Newburgh:** Newburgh Shipyards [S]. **Port Jefferson, Long Island:** Bayles Shipyard (Inc.) [S]. **Port Richard (Staten Island):** Staten Island Shipbuilding [S and R]. **Richmond Borough (Staten Island):** Downey Shipbuilding Corporation [S]. **Shooters Island:** Standard Shipbuilding Corporation [S and R]. Yonkers: Continental Shipbuilding Corp. [W].

OHIO

Ashtabula: Great Lakes Engine Works [S]. **Cleveland:** The American Shipbuilding Company [S]. **Lorain:** The American Shipbuilding Company [S]. **Toledo:** Toledo Shipbuilding Co. [S and R]

OREGON

Astoria: McEachem Ship Co. [W]; George F. Rodgers & Co. [W]; Wilson Shipbuilding Company [W]. **Columbia City:** Sonimarstrom Shipbuilding Company [W]. **Marshfield:** Coos Bay Shipbuilding Company [W]. **North Bend:** Kruse & Banks Shipbuilding Company [W]. **Portland:** Albena Engine & Machine Works (Inc.) [S and R]; Coast Shipbuilding Company [W]; Columbia River Shipbuilding Corporation [S]; Grant Smith-Porter- [Guthrie] Company [W]; Kiernan & Kern Co. [W]; Northwest Steel Company [S and R]; Peninsula Shipbuilding Company [W]; G.M. Standifer Construction

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Corporation [W]; Supple & Ballin [W and C]; Willamette Iron & Steel Works [R]. **St. Helens:** St. Helens Shipbuilding Company [W]. **Tillamook:** Feeney & Bremer Company [W].

PENNSYLVANIA

Bristol: Merchant Shipbuilding Corporation [S]. **Chester:** Chester Shipbuilding Co. [S and R]; Sun Shipbuilding Corporation [S]. **Cornwells Heights:** Traylor Shipbuilding Corporation [W]. **Hog Island:** American International Corporation [S]. **Philadelphia:** Pusey & Jones Co. [S]; William Cramp & Sons Ship & Engine Building [S and R]

SOUTH CAROLINA

Charleston: Southern Shipbuilding Corporation [S].

TEXAS

Beaumont: Beaumont Shipbuilding & Dry Dock Company [W]; Lone Star Shipbuilding Company [W]; McBride & Law [W]; J.N. McCammon [W]. **Harris County [Houston Ship Canal]:** Universal Shipbuilding Company [W]. **Houston:** Midland Bridge Company [W]. **Orange:** National Shipbuilding Company [W]; Southern Dry Dock & Shipbuilding Company [W]. **Pinto Island:** Murnan Shipbuilding Corporation [W]. **Port Aransas:** Heldenfels Brothers [W].

VIRGINIA

Alexandria: American Shipbuilding Corporation [S]; Virginia Shipbuilding Corporation [S]. **Hampton:** Newcomb Lifeboat Company [W]; Charles H. Tenney & Co. [W]. **Newport News:** Newport News Shipbuilding & Dry Dock Co. [S and R]. **Norfolk:** Hampton Roads Shipbuilding & Dry Dock Corporation [S]. **Quantico:** Missouri Valley Co. [W]; Potomac Shipbuilding Company [W]. **West Point:** York River Shipbuilding Corporation [W].

WASHINGTON

Bellingham: Pacific American Fisheries [W]. **Grays Harbor:** Grays Harbor M.S. Corporation [W]. **Olympia:** Sloan Shipyards Corporation [W]. **Salmon Bay:** Meacham & Babcock Shipbuilding Company [W]. **Seattle:** Allan Shipbuilding Co. [W]; Ames Shipbuilding & Dry Dock Co. [S and R]; J.F. Duthie & Co. [S and R]; Erickson Engineering Company [S]; Nilson & Kelez Shipbuilding Corporation [W]; Patterson McDonald Shipbuilding Company [S and W]; Pudget Sound Bridge & Dredge Co. [W]; Seattle Construction & Dry Dock Company [S]; Skinner & Eddy Corporation [S]. **Tacoma:** Barbaro Brothers [W]; Seaborn Shipyards Company [W]; Tacoma Shipbuilding Company [W]; Todd Dry Dock & Construction Co. [Skinner & Eddy Corporation] [S]; Wright's Shipyard [W]. **Vancouver:** G.M. Standifer Construction Corporation [W]. Willapa Harbor: Sanderson & Porter [W].

WISCONSIN

Manitowoc: Manitowoc Shipbuilding Co. [S and R]. **Sturgeon Bay:** Lake & Ocean Navigation Company [W]. **Superior:** The American Shipbuilding Company [S]; Globe Shipbuilding Co. [S and R].

UNIDENTIFIED LOCATION

Atlantic Coast Shipbuilding Co.

(C) VESSELS CHARTED ON MAP OF POTOMAC RIVER AT MALLOWS BAY DURING A SURVEY OF THE
GROUNDING AREA, AUGUST 11, 1929

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Abbeville [15] 1212/28 (Ferris)	Bobring [29] 7/28/28 (Pacific	Dungeness [47] 10/28/28 (Ferris)
Acrema [122]-(Ferris)	American Fisheries)	Esopus [141] (Ferris)
Aculdo (Aculeo) [39] 10/12/28	Bockonoff [761] 4/27/29 (Pacific	Eyota [77] 4/27/29 (Ferris)
(Ferris)	American Fisheries)	Falmouth [130] (Ferris)
Adway [36] 10/12/28 (Ferris)	Boilston [57] 7/28/28 (Hough)	Fassett [121] (Ferris)
Afalkey [91] (Ferris)	Bologan [37] 10/12/28 (Ferris)	Fernandina [94] 12/21/28 (Ferris)
Afrania [58] 7/13/26 (Ferris)	Bon Secour [7] 8/6/27 (Pacific	Flavel [24] 7/28/28 (Hough)
Ahala [3] 3/17/28 (Ferris)	American Fisheries)	Folsom I 111] (Ferris)
Aiken [22] 7/28/28 (Ferris)	Bonifay [23] 10/12/28 (Forns)	Forster [60] 3/17/28 (Ferris)
Alabat [73] 10/12/28 (Ferris)	Boone [16] 12/21/28 (Ferris)	Fort Riley [69] 10/12/28 (Ferris)
Alanthus [63] (Ferris)	Borad [106] To Philadelphia	Fort Sill [5] 3/17/28 (Ferris)
Alapaha [114] (Ferris)	(McClelland)	Fort Stevens [67] 10/12/28 (Ferris)
Akis [88] 4/27/29 (Ferris)	Botsford [no data] (McClelland)	Grayling [117]28/28 (Grays
Alector [108] (Ferris)	Bouineau [1161]-(Ferris)	Harbor)
Allison [120] (Ferris)	Boxley [621] 12/21/28 (Ferris)	Guilford [137] (Ferris)
Alpaco [43] 10/12/28 (Ferris)	Boykin [118]-(Ferris)	Hokah [142] (Ferris)
Alta [103] (Ferris)	Boynton [95]-(Ferris)	Hoosac [87] 4/27/29 (Ferris)
Amoron [128] (Ferris)	Buhsan [104]-(Ferris)	Horado [6] 8/6/27 (Daugherty)
Anoka [147]-(Peninsula)	Bushong [54] 7/13/26 (Ballin)	Itanca [217]28/28 (Ferris)
Andra [78] 4/27/29 (Ferris)	Braeburn [481] 7/28/28 (Peninsula)	Kanakee [18] 10/12/28 (Ferris)
Angelina [27] 3/17/28 (Ferris)	Brentwood [140]-(Peninsula)	Kangi [115] (Ferris)
Anthera [131] (Ferris)	Bromela [30] 7/28/28 (Grays)	Kasota [150] (Hough)
Aowa [149]-(Ferris)	Harbor)	Katonah [821] 10/12/28 (Ferris)
Arado [26] 3/17/28 (Ferris)	Brompton [8] 3/17/28 (Grays)	Keota [110] (Ferris)
Ardenia (Ardena) [71] 12/21/28	Harbor)	Kickapoo [13] 4/27/29 (Hough)
(Ferris)	Buckhorn [98] (Ferris)	Kimta [79] 10/12/28 (Ferris)
Arundel [86] 4/27/29 (Ferris)	Bulana [136] (Ferris)	Kokomo [4] 3/17/28 (Ferris)
Aspenhill [65] 10/12/28 (Ferris)	Bushrod [56] 7/13/26 (Ballin)	Laforge [51] 7/28/28 (Ferris)
Astoria [72] 12/21/28 (Hough)	Cabeza (Cabega) [1 13] (Ferris)	Latoka [49] 3/17/28 (Ferris)
Baladan [17] 4/27/29 (Hough)	Cabura [10] 816127 (Ferris)	Lewiston [109] (Ferris)
Balino [129] (McClelland)	Calala [32] (Ballin)	Lonoke [101](Ferris)
Bancroft [70] 10/12/28 (Ferris)	Capines [83] 12/21/28 (Ferris)	Mahnet [14] 12/21/28 (Ferris)
Banica (Banicaa) [89] 4/27/29	Caribou [152] (Ferris) -	Marshfield [12] 4/27/29 (Hough)
(Ferris)	Casmalia [34] (Ferris)	Medford [93] (Ferris)
Barabos [132] (Ferris)	Cheron [46] 7/28/28 (Ferris)	Mono [99] (Hough)
Barrington [97] 12/21/28 (Ferris)	Clodia [11] 10/12/28 (Pacific	Moosabee [53] 3/17/28 (Unknown
Battahatchee [84] 4/27/29 (Ferris)	American Fisheries)	Type)
Battonville [124] To Philadelphia	Coconino [21] 7/28/28 (Hough)	Moraine [38] 10/12/28 (Forns)
(McClelland)	Coloma [20] 7/3/25 (Ferris)	Munra [80] 10/12/28 (Ferris)
Barley [144] (Ferris)	Conewago [52] 10112/28 (Ferris)	Musketo [28] 7/28/28 (Hough)
Bayou Teche [40] 10/12/28 (Ferris)	Congaree [1 25]-(Ferris)	Namecki [126] (Ferris)
Bedminster [112] (Ferris)	Coulter [85] 10/12/28 (Ferris)	Neeolah [25] 7/28/28 (Ferris)
Belgrade [148] (Ferris)	Cumberland [42] 10/12/28 (Ferris)	Nemassa [139] (Ferris)
Bell Brook [45] 7/28/28	Dalgada [107] 4127129	North Bend [50] 7/28/28 (Hough)

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(Peninsula)	(McClelland)	(Hough)
Benzonia [146] (Ferris)	Dancey [134] (Ferris)	Nupolela [151] (Ferris)
Berea [127] (Ferris)	Darrah [9] 4/27/29 (Ferris)	Obak [no data] (McClelland)
Blandon [145] (Hough)	Dais [44] 10/12/28 (Ferris)	Oraton [135] (Ferris)
Blue Eagle [35] 10/12/28 (Ferris)	Dertona [55] 7/13/26 (Ballin)	Owatama [31] 12/21/28 (Ferris)
Panga [41] 10/12/28 (Ferris)	Toka [96] 12/21/28 (Ferris)	Wenakee [74] 10/12/28 (Ferris)
Pascagoula [133] (Ferris)	Tuwetanka [105] 4/27/29	Wihaha [66] 4/27/29 (Ferris)
Quapaw [61] 10/12/28 (Ferris)	(McClelland)	Wonahbe (Wonteitabe) [59] 7/3/25
Quemakoning [123]	Umatilta [138]-(Ferris)	(Ferris)
(McClelland)	Utoka [92] (Ferris)	Woyaca [90] 4/27/29 (Ferris)
Quinault [81] 10/12/28 (Ferris)	Wahkiakum [143]-(Ferris)	Yakima [117] (Ferris)
Saris [19] 7/3/25 (Ferris)	Wakan (Wakanna) [75] 4/27/29	Yawah [33] (Ferris)
Sewickley (Swickly) [102]	(Ferris)	Unidentified submerged schooner
(Ferris)	Wayhut [68] 4/27/29 (Ferris)	wreck
Swampscott [100] (Ferris)	Wayuoan (Wayuean) [64]	Unidentified beached schooner
Tanka [119] (Ferris)	10/12/28 (Ferris)	wreck

Additional features indicated:

Sandy Point Light; Twin U.S.C.&G. Monument Site; Four track marine railway at Sandy Point; Three buildings at Sandy Point; White post range point at Liverpool Point; White post range point at Sandy Point; Two lines of protective netting around grounding area; Western Marine and Salvage Company Property (with iron rod property corner); Wilson Property (with 4X4 hub property corner); Wright Property; Baker Property; Marsh areas.

Magnetic North (1925); Soundings in feet at MLW (1925 slanted; 1929 vertical); The 18 foot contour Burning Areas shown in permit of 7/24/25 renewed 12/21/28; Limits of grounding area shown on permit 7/24/25 renewed 12/21/28; Indication of released hulls.

Map drawn on 1:2,400 scale
U.S. Engineer Office, Washington, D.C.
August 6, 1929
File No. B60-172
E.J. Merrick, Civil Engineer

**(D) VESSELS DOCUMENTED PRESENT AND/OR DESTROYED ON POTOMAC RIVER
AT OR NEAR MALLOWS BAY**

Aowa, Asotin, Bagosa, Balliett, Belotta, Bloomingdale, Bonnafon, Calooh, Chibiabos, Dera, Fonduco, Mahaska, Makanda, Nashota, Waneyanda

**(E) VESSELS DOCUMENTED PRESENT AND/OR DESTROYED ON POTOMAC RIVER AT WIDEWATER,
VIRGINIA**

Aberdeen, Blythedale, Catawba, Gray Eagle, Okiya, Quidnic, Wasco, Four Unidentified

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ENDNOTES

- ¹ Cf. John Smith, *General Historie of Virginia, New England, and the Summer Isles* (London: 1624) for full account of the 1608 Smith exploration of the Potomac River; Henry Fleet, "A Brief Journal of a Voyage made in the Bark Warwick to Virginia and other parts of America," Manuscript Division, Library of Congress, Washington, D.C., and *Narratives of Early Maryland, 1633-1684*, Clayton C. Hall, ed. (New York: 1910), for accounts of Fleet's activities on the Potomac; Henry Spelman, *A Relation of Virginia, 1609* (London: 1872) for Spelman's exploration of the upper Potomac and trade with the natives; Augustine Hermann, *Virginia and Maryland, 1670 [1673]*, Geographic and Map Division, Library of Congress, Washington, D.C.; Edwin W. Beitzell, *Life on the Potomac River* (Abell, Maryland: 1979), p. 194; Walter Hoxton, *Mapp of the Bay of Chesapeak with the Rivers Potomack, Potapsco, North East, and part of Chester, 1735*, Maryland Historical Society, Baltimore; Anthony Smith, *A New and Accurate Chart of the Bay of Chesapeake, 1776*, Geographic and Map Division, Library of Congress, Washington, D.C.
- ² Lord Dunmore to Lord Germain, July 31, 1776, in *Naval Documents of the American Revolution* (Washington: 1970), V, pp. 1312-314; "Narrative of Captain Andrew Snape Hamond," in *Naval Documents of the American Revolution* (Washington: 1972), VI, p. 172-73, 1207; Master's Log of H.M.S. Roebuck, in *Naval Documents*, V, 1194; Dean Allard, "The Potomac Navy of 1776," in *The Virginia Magazine of History and Biography*, Vol. 84, No. 4 (October 1976), pp. 422-425; Purdie's *Virginia Gazette*, September 6, 1776; *Maryland Gazette*, November 7, 1776; Joseph Hawkins to Daniel St. Thomas Jenifer, July 26, 1776, in Red Book, XV, Maryland Archives.
- ³ Fielding Lucas, Jr., *Geographical, Statistical, and Historical Map of Maryland, 1822 [1823]*, William T. Snyder Collection; David H. Burr, *Delaware and Mary-Land, 1833*, Huntingfield Collection; Frederick Tilp, *This Was Potomac River* (Alexandria, Virginia: 1978), p. 195; Colonel Sir Henry James, Richmond, 1864, in Edward C. Papenfuse and Joseph M. Coale, III, *The Hammond Harwood House Atlas of Historical Maps of Maryland, 1608-1908* (Baltimore and London: 1982), p. 83; *Port Tobacco Times and Charles County Advertiser*, March 5, 1851
- ⁴ Beitzell, p. 90.
- ⁵ *In the Anacostia Watershed*, Vol. VI, No. 1 (Winter 1993), p. 3.
- ⁶ William H. Massman, "A Potomac River Shad Fishery, 1814-1824," (photocopy), Calvert Marine Museum Library Collection, Solomons, Maryland.
- ⁷ *Ibid.*
- ⁸ Nan Netherton, Donald Sweig, Janice Artemal, Patricia Hicldin, Patrick Reed, *Fairfax County, Virginia: A History* (Fairfax, Virginia: 1978), p. 262.
- ⁹ *In the Anacostia Watershed*, 3; Alice J. Lippson, Michael S. Haire, A. Frederick Holland, Fred Jacobs, Jorgen Jemsen, R. Lynn Moran-Johnson, Tibor T. Polgar, William A. Richkus, *Environmental Atlas of the Potomac Estuary* (Baltimore: 1978), p. 202-204.
- ¹⁰ J.J. Young and W. Hesselbach, *Map of Northern Virginia and Vicinity of Washington, Compiled in Topographical Engineers Office At Division Headquarters of General Irwin McDowell, Arlington, 1862*, Geographic and Map Division, Library of Congress, Washington, D.C.
- ¹¹ Mary Alice Wills, *The Confederate Blockade of Washington, D. C. 1861-1862* (Parson, West Virginia, 1975), pp. 47, 84.
- ¹² Carleton Jones, "Mining a New Treasure Trove of Civil War Relics," in *The Sun Magazine*, January 27, 1980, p. 7.
- ¹³ *The National Tribune* (Washington, D.C.), July 19, 1888.
- ¹⁴ Beitzell, p. 285; Tilp, p. 21.
- ¹⁵ Tilp, p.21-22.
- ¹⁶ *Ibid.*, p.32.
- ¹⁷ Beitzell, pp. 69, 140-41.
- ¹⁸ Robert H. Burgess and H. Graham Wood, *Steamboats Out of Baltimore* (Cambridge, Maryland: 1968), p. 106.

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- ¹⁹ Tilp, pp. 253, 265; Tilp, personal communication, July 6, 1980.
- ²⁰ *Evening Star* (Washington, D.C.), January 30, 1904; *Evening (Sunday) Star*, May 21, 1905.
- ²¹ Robert H. Burgess, *This Was Chesapeake Bay* (Cambridge, Maryland: 1963), 165; William J. Williams, *The Wilson Administration and the Shipbuilding Crisis of 1917: Steel Ships and Wooden Steamers* (Lewiston/Queenston/Lampeter: 1992), p. 109.
- ²² Carlos DeZafra, "Revival of Wooden Shipbuilding as a War Industry," in *Transactions of the Society of Naval Architects and Marine Engineers*, Vol. XXVI, 1918, pp. 33-34.
- ²³ "Our Unexampled Ship-building Activities," in *The Literary Digest*, Vol. LIII (August 12, 1916), 388-89; William Joe Webb, "The United States Wooden Steamship Program During World War I," in *The American Neptune*, October 1975, p. 275.
- ²⁴ Williams, p. 28.
- ²⁵ *Ibid.*, 90; U.S. Shipping Board, *Certificate of Incorporation and By-Laws of the United States Shipping Board Emergency Fleet Corporation* (Washington: 1917), pp. 3-14.
- ²⁶ *New York Times*, January 31, 1917; Williams, pp. 57-58.
- ²⁷ Edward Nash Hurley, *The Bridge to France* (Philadelphia: 1927), p. 53; *U.S. Congress, House, Hearings Before Select Committee on United States Shipping Board Operations, 66th Cong., 2d and 3d Sess., 1920-21*, p. 3188, cited hereafter as *U.S. Congress, Hearings, 1920-21*; Webb, 277.
- ²⁸ Williams, 75-80.
- ²⁹ *Ibid.*, 76; *U.S. Congress, Hearings, 1920-21*, 3188.
- ³⁰ Williams, pp. 75, 113, 128, 176-79; *Chicago Tribune*, May 26, 1917; *New York Times*, May 27, 1917; Woodrow Wilson to John Denman, July 24, 1917, Box 43, George Goethals Papers, Library of Congress; Woodrow Wilson to George Goethals, July 24, 1917, Box 43, George Goethals Papers, Library of Congress; *New York Times*, July 25, 1917.
- ³¹ Robert H. Burgess, *This Was Chesapeake Bay*, p. 165; Theodore E. Ferris, *Yellow Pine Ship: Specifications for the Construction of a Standard Wood Steamship, Hull Only, for the United States Shipping Board Emergency Fleet Corporation* (Washington: 1917), pp. 7-9; *New York Times*, April 6, 1917; William T. Donnelly, "Wooden Ships and the Submarine Menace," in *International Marine Engineering*, June 1917, p. 251 *New York Times*, April 6, 1917. This concept was first suggested by Frank L. Sprague, an electrical engineer and member of the Naval Consulting Board, noting that "Five boats of 3,000 tons require about five times as many torpedoes to sink as one boat of 15,000 tons." Williams, p. 66.
- ³² Webb, p. 279.
- ³³ William T. Donnelly, "Problems of the Wooden Cargo Ship: Description and Calculations of 5,500 Deadweight Carrying Capacity Cargo Vessel," in *International Marine Engineering*, May 1917, p. 206; Williams, p. 73.
- ³⁴ Donnelly, "Problems of the Wooden Cargo Ship," p. 206.
- ³⁵ *Ibid.*
- ³⁶ Theodore E. Ferris, "Standard Wooden Steamships for United States Shipping Board Emergency Fleet" in *International Marine Engineering*, July 1917, p. 294.
- ³⁷ *Ibid.*
- ³⁸ *Ibid.*
- ³⁹ *Ibid.*, p.296.
- ⁴⁰ *Ibid.*
- ⁴¹ *Ibid.*
- ⁴² *Ibid.*
- ⁴³ *Ibid.*
- ⁴³ *Ibid.*

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⁴⁴ Ibid.

⁴⁵ Ibid., p. 297.

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Ibid., 298.

⁵¹ Ibid.

⁵² Ibid.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Webb, p.279.

⁵⁷ "Hough Type Wooden Steamship," in *International Marine Engineering*, September 1917, pp. 280- 81.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Ibid., pp. 281-82.

⁶² Ibid., p.282.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ Ferris, *Yellow Pine*, pp. 7-9; *United States Shipping Board, Second Annual Report* (Washington: 1918), 139-40.

⁶⁸ Webb, p. 280; Burgess, *This Was Chesapeake Bay*, p. 165; *U.S. Congress, Senate Committee on Commerce, Cost of Ship Construction, Letter from the Acting Chairman of the United States Shipping Board Transmitting in Response to a Senate Resolution of November 21, 1918, Information Relative to Existing Contracts for Ship Construction, the Cost of Such Construction, in Both Private and Government Shipyards, 65th Cong., 3d Sess., 1919, 5. Doc. 315, p. 6*, hereafter cited as *Senate, Cost of Ship Construction*.

⁶⁹ Ibid.; Webb, pp. 280-81; "Ship Timber Wanted," in *International Marine Engineering*, October 1917, p. 468.

⁷⁰ *New York Times*, December 28, 1917; *Senate, Cost of Ship Construction*, pp. 5-6; *U.S. Congress, Senate Committee on Commerce, Hearings Directing the Committee to Investigate All Matters Connected With the Building of Merchant Vessels Under the Direction of the United States Shipping Board Emergency Fleet Corporation and Report Its Findings to the Senate, Together With Its Recommendations Thereon, 65th Cong., 2d Sess., 1918, pp. 311-12*, hereafter cited as *Senate Hearings, Building of Merchant Vessels*; Webb, p. 281.

⁷¹ *New York Times*, March 18 and 19, 1918.

⁷² Webb, p. 282-83.

⁷³ *Senate, Cost of Ship Construction*, p. 9; John Lyman, "Wooden Freighters of World War I," in *The Marine Digest*, December 29, 1945.

⁷⁴ *The Daily World* (Aberdeen, Washington), January 26, 1975.

⁷⁵ Ibid.; "Estimate and Actual Performance," in *Shipbuilders Bulletin*, Vol. 1, No. 5 (April 10, 1919), p. 6.

⁷⁶ *The Daily World*, January 26, 1975.

⁷⁷ *The Aberdeen* (photocopy), enclosed in Harold Huycke to Fred Hopkins, March 30, 1994.

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- ⁷⁸ *New York Times*, October 25 and November 5, 1918; U.S. Shipping Board, *Third Annual Report* (Washington: 1919), 80-81; *Senate, Cost of Ship Construction*, 7-9.
- ⁷⁹ Record Group 32, U.S. Shipping Board Emergency Fleet Corporation, Alphabetical List of All Types That Are Now or Have Ever Been Under the Ownership or Control of the United States Shipping Board, Washington, 1924, National Archives and Record Service, cited hereafter as "List of Vessels"; "The Wood Emergency Fleet," in *International Marine Engineering*, February 1919, p. 65; *Senate, Cost of Ship Construction*, p. 8; Webb, p. 283.
- ⁸⁰ "Reports Splendid Record in Trial," *Shipbuilders Bulletin*, Vol. 1, No. 5 (April 10, 1919), p. 8.
- ⁸¹ "The Wooden Emergency Fleet," p. 65.
- ⁸² "List of Vessels"; Webb, pp. 284.
- ⁸³ U.S. Shipping Board, *Fourth Annual Report*, pp. 53-55; Webb, p. 285; "Two More Ships For Recruiting Service," in *Shipbuilders Bulletin*, Vol. 1, No. 4 (March 25, 1919), p. 8.
- ⁸⁴ Darrell H. Smith and Paul V. Better, *The United States Shipping Board: Its History, Activities and Organization* (Washington: 1931), pp. 55-56; *U.S. Congress, House, Report of the Select Committee of Inquiry into Operations, Policies, and Affairs of the United States Shipping Board and Emergency Fleet Corporation, 69th Cong., 1st Sess., 1925, H. Rept. 2*, pp. 10-11; *U.S. Congress, Senate, Government Owned Ships, Letter from the United States Shipping Board in Response to a Resolution of the Senate, Dated October 14, 1919, Submitting Reply as to the Number of Ships Sold, Offers to Purchase, and the Policy of the Board in Disposing of Ships, 66th Cong., 1st Sess., 1919, 5. Doc. 146*, p. 14; Webb, pp. 285-86.
- ⁸⁵ *U.S. Congress, Senate, Committee on Commerce, Report of the United States Shipping Board, Letter from the Chairman of the Shipping Board Transmitting in Response to a Senate Resolution of December 27, 1920, A Report Covering the Transactions of the United States Shipping Board and the Emergency Fleet Corporation From Its Inception to February 28, 1921, 67th Cong., 1st Sess., 1921, 5. Doc. 38*, p. 18; *House Hearings, Select Committee on United States Shipping Board Operations*, 513-35.
- ⁸⁶ The proceedings of the fleet sale offers may be followed through *the New York Times* and *Washington Post* in the many announcements and stories regarding the sales, between 1920 and 1922.
- ⁸⁷ U.S. Shipping Board, *Seventh Annual Report* (Washington: 1927), p. 147; Record Group 32, U.S. Shipping Board General File, 605-1-921, NARS.
- ⁸⁸ "List of Vessels"; Webb, p. 287; *The Washington Times*, October 11, 1922.
- ⁸⁹ William F. Humphrey to Ralph V. Sollit, June 14, 1923, Office of Chief of Engineers, Civil Works, Record of the Chief of Engineers, Record Group 77, 1923-1942, Potomac River, (7245-7249) Serials 81-140, Box 1401, Folder 7175, Part I, Rivers and Harbor File, NARS, hereafter cited as OCE; *The Washington Times*, October 11, 1922.
- ⁹⁰ Frederick Tilp, *This Was Potomac River* (Alexandria, Virginia: 1978), pp. 313, 322; Edwin W. Beitzell, *Life on the Potomac River* (Abell, Maryland: 1979), pp. 194-95.
- ⁹¹ *The Washington Times*, October 11, 1922.
- ⁹² Ibid.
- ⁹³ Ibid.; *Alexandria Gazette*, April 18, 1923.
- ⁹⁴ *The Washington Herald*, November 6, 1922; *The Washington Times*, November 18, 1922.
- ⁹⁵ *Alexandria Gazette*, April 18, 1923.
- ⁹⁶ E.G. Huefe to Commanding General Marine Barracks, Quantico, Virginia, April 18, 1923, Box 1401, Folder 7175, OCE, Part I, NARS; ibid., M.C. Tyler to Commanding General, Marine Barracks, Quantico, Virginia, April 19, 1923; ibid., W.E. McCaughtry to Commanding General, Marine Barracks, Quantico, Virginia, April 25, 1923; ibid., E.W. Fales to District Engineer, Washington, April 25, 1923.
- ⁹⁷ Ibid.
- ⁹⁸ E.G. Huefe to Commanding General Marine Barracks, Quantico, Virginia, April 18, 1923.

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- ⁹⁹ E.G. Huefe to Commanding General Marine Barracks, Quantico, Virginia, April 18, 1923; M.C. Tyler to Commanding General, Marine Barracks, Quantico, Virginia, April 19, 1923; W.E. McCaughtry to Commanding General, Marine Barracks, Quantico, Virginia, April 25, 1923.
- ¹⁰⁰ Ibid.; H.E. Whitaker to Chief of Engineers, April 20, 1923, Box 1401, Folder 7175, Part I, OCE, NARS.
- ¹⁰¹ Whitaker to Chief of Engineers, April 20, 1923, op. cit.
- ¹⁰² Ibid.
- ¹⁰³ Ibid.
- ¹⁰⁴ Ibid., M.C. Tyler to Chief of Engineers, April 28, 1923.
- ¹⁰⁵ William F. Humphrey to Ralph V. Sollit, June 14, 1923, Office of Chief of Engineers, Civil Works, Record of the Chief of Engineers, Record Group 77, 1923-1942, Potomac River, (7245-7249) Serials 81-140, Box 1401, Folder 7175, Part I, Rivers and Harbor File, NARS.
- ¹⁰⁶ Ibid.
- ¹⁰⁷ Whitaker to District Engineer's Office, 19 June 1923, Box 1401, Folder 7175, Part I, OCE, NARS.
- ¹⁰⁸ Lansing H. Beach to Secretary of War, July 26, 1923; Memorandum: (Potomac River). Subject: Anchorage Ground in Potomac River off Widewater, Virginia.
- ¹⁰⁹ William J. Bacon to William B. Pistole, October 1, 1923; W.A. Snow to Chief of Engineers, October 9, 1923.
- ¹¹⁰ Ibid.
- ¹¹¹ Ibid.
- ¹¹² Alvin T. Embrey to Herbert Hoover, September 29, 1923; W.A. Snow to Chief of Engineers, October 9, 1923.
- ¹¹³ J.A. O'Connor to Chief of Engineers, May 26, 1924.
- ¹¹⁴ [Donald G. Shomette] The Shipwrecks of Mallows Bay: A Historic Overview. Mallows Bay, Maryland Submerged Cultural Resource Survey. Report prepared for the Maryland Historical Trust by the St. Clements Island-Potomac River Museum, Colton Point, Maryland. December 1994, p. 73.
- ¹¹⁵ *Washington Post*, November 8, 1925.
- ¹¹⁶ Tilp, 32.
- ¹¹⁷ Potomac River at Mallows Bay Survey of Grounding Area August 11, 1929, U.S. Army Corps of Engineers file copy, Baltimore District, Archives.
- ¹¹⁸ Ibid.
- ¹¹⁹ Ibid.
- ¹²⁰ Surety of Herbert Fleishhacker and James Tyson, August 13, 1929, Box 1401, Folder 7175, Part I, OCE, NARS.
- ¹²¹ Surety of James Tyson and Herbert Fleishhacker, August 9, 1929, Box 1401, Folder 7175, Part II, OCE, NARS; Ibid., Herbert Fleishhacker and James Tyson to District Engineer, Washington, July 29, 1930.
- ¹²² Potomac River at Mallows Bay. Survey of Grounding Area August 11, 1929, op. cit.
- ¹²³ James Tyson and Herbert Fleishhacker to District Engineer, Washington, August 18, 1930, op. cit.; *ibid.*, V.L. Peterson to Office Chief of Engineers, September 4, 1930; *ibid.*, J.D. Arthur, Jr., to Chief of Engineers, August 26, 1930.
- ¹²⁴ James Tyson and Herbert Fleishhacker to District Engineer, Washington, August 28, 1930; *ibid.*, J.D. Arthur to Chief of Engineers, September 11, 1930; *ibid.*, Dwight F. Johns to Office, Chief of Engineers, September 19, 1930, Box 1401, Folder 7175, Part II.
- ¹²⁵ James Tyson and Herbert Fleishhacker to District Engineer, Washington, September 15, 1930; *ibid.*, J.D. Arthur to District Engineer, Washington, September 27, 1930; *ibid.*, V.L. Peterson to District Engineer, Washington, October 4, 1930.

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- ¹²⁶ “Harry Steinbraker v. Lorenzo D. Crouse,” No. 46, October Term, 1935, Charles County Court, La Plata, Maryland, 455, 456, 461.
- ¹²⁷ William F. Humphrey to Douglas MacArthur, June 18, 1931, Box 1401, Folder 7175, Part II, NARS; “Steinbraker v. Crouse,” 455.
- ¹²⁸ Humphrey to MacArthur, June 18, 1931.
- ¹²⁹ Ibid., Lytle Brown to William F. Humphrey, July 1, 1931.
- ¹³⁰ Lytle Brown to William F. Humphrey, July 1, 1931.
- ¹³¹ Ibid.
- ¹³² Tilp, 265.
- ¹³³ “Steinbraker v. Crouse,” 456-57; W.D. Luplow to Chief of Engineers, May 8, 1937, op. cit.
- ¹³⁴ Charles County Court, Liber WHA 56, Folio 306. “Steinbraker v. Crouse” incorrectly cites the date as November 30. Steinbraker v. Crouse, 456, 457, 459.
- ¹³⁵ “Steinbraker v. Crouse,” 455-56, 459, 460-61.
- ¹³⁶ Ibid.; J. Read Bailey to Stephen W. Gambrill, July 6, 1934, Box 1401, Folder 7175, Part II, OCE, NARS.
- ¹³⁷ “Steinbraker v. Crouse,” 461.
- ¹³⁸ J. Read Bailey to Stephen W. Gambrill, July 6, 1934, op. cit.
- ¹³⁹ Ibid., G.B. Pillsbury to Stephen W. Gambrill, July 16, 1934.
- ¹⁴¹ Ibid.
- ¹⁴² W.D. Luplow to Chief of Engineers, May 8, 1937, op. cit.; Tilp, 44, 88, 294, 308.
- ¹⁴³ Paul C. Morris, *American Sailing Coasters of the North Atlantic* (Chardon, Ohio: 1973), p. 135; Tilp, p. 88.
- ¹⁴⁴ “Steinbraker v. Crouse,” 453-55.
- ¹⁴⁵ Ibid., 459.
- ¹⁴⁶ Ibid., 462-63.
- ¹⁴⁶ Ibid., 462-63.
- ¹⁴⁷ Charles County Court, Liber 59, Folio 512; Frederick Tilp, *The Chesapeake Bay of Yore: Mainly about the Rowing and Sailing Craft* (Alexandria, Virginia: 1982), p. 56.
- ¹⁴⁸ C.D. Rittenhouse to P.C. Dour, May 19, 1937, Box 1402, Folder 7245, Part II, OCE, NARS.
- ¹⁴⁹ W.D. Luplow to Chief of Engineers, May 8, 1937, op. cit.
- ¹⁵⁰ Ibid.
- ¹⁵¹ Ibid.
- ¹⁵² Ibid.
- ¹⁵³ Ibid.
- ¹⁵⁴ Ibid.; Bullock to Chief of Engineers, May 26, 1937; ., E.M. Markham to Chief of Engineers, May 27, 1937; W.D. Luplow to Division Engineer, South Atlantic Division, May 28, 1938 [1937]; Advice of Allotment, June 6, 1937, Advice No. C-2378; Charles County Court, Liber 73, Folio 538; Liber 73, Folio 537.
- ¹⁵⁵ File 179, Box 916, Record Group 179, War Production Board, Salvage Program, July-December 1942, Military Reference Branch, NARS.
- ¹⁵⁶ Minutes of the Metals Reserve Company, 1940-1945, Vol. 14, 357-59, October 21, 1942, Records of the Reconstruction Finance Corporation (37 Vols.), Record Group 234, Civil Reference Branch, NARS.
- ¹⁵⁷ Ibid.
- ¹⁵⁸ Charles County Court, Liber 77, Folio 463, December 31, 1942.
- ¹⁵⁹ Minutes of the Metals Reserve Company, Vol. 33, 156-57.
- ¹⁶⁰ Ibid., Vol. 31, 123-25, March 10, 1944.
- ¹⁶¹ Ibid., Vol. 35, 317, September 22, 1944.

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¹⁶² Ibid., Vol. 33, 659-60, May 22, 1944.

¹⁶³ *Dictionary of American Fighting Ships*, Vol. 5, (Washington, D.C.; 1970), p. 102; Minutes of the Metals Reserve Company, Vol. 35, p. 317, September 22, 1944.

¹⁶⁴ Minutes of the Metals Reserve Company, op. cit.

¹⁶⁵ Ibid., Vol. 36, pp. 86-87, November 6, 1944.

¹⁶⁶ Ibid., pp. 266-67, November 11, 1944; pp. 391-92, November 28, 1944.

¹⁶⁷ *U.S. Congress, House of Representatives, Report No. 91-1761, Protecting America's Estuaries: The Potomac, 91st Cong., 2d Sess., 1970*, pp. 8-11, hereafter cited as *House, Protecting America's Estuaries*.

¹⁶⁸ Ibid., p. 6.

¹⁶⁹ Ibid.

¹⁷⁰ Ibid.

¹⁷¹ Ibid., pp. 6-7.

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Statement of Significance

Summary

A total of 187 vessels have been documented in the archival record as lost or abandoned in the Mallows Bay study area, and in the Widewater anchorage of the United States Shipping Board Emergency Fleet. [See Table 1] Of the vessels recorded as lost, abandoned, or brought in for reduction, 177 belonged to the Emergency Fleet. An additional ten vessels were lost or abandoned owing to miscellaneous causes. Although the total number of Emergency Fleet vessels scheduled for reduction at Widewater and Mallows Bay were to have totaled 218 ships, only 177 can be accounted for in the archival record, primarily in U.S. Army Corps of Engineers (COE) reports, performance assurance bonds, and survey map data. A total of 154 Emergency Fleet vessels are identified by name as having been at anchor awaiting reduction or as hulks already reduced in Mallows Bay as of 6 August 1929, recorded 11 August 1929], when a COE survey of vessels therein resulted in a map identifying the vessels by name and an COE ascribed number. Of these, two vessels, *Botsford* and *Obak*, are indicated as lying off of Sandy Point, while a pencil notation (no date) indicates that *Borad* was scheduled for transfer to Philadelphia. To date no record has been found to indicate the *Borad* transfer was ever carried out. An additional ten vessels, *Aberdeen*, *Blythedale*, *Catawba*, *Gray Eagle*, *Okiya*, *Quidnic*, and *Wasco*, and three unidentifieds, were lost due to accidental causes or intentionally destroyed while anchored off Widewater, Virginia, in 1923. Eight more vessels are known to have been present and/or destroyed on the Potomac River at or near Mallows Bay. These vessels were: *Chibiabos*, *Cresap*, *Dera*, *Fonduco*, *Mahaska*, *Makanda*, *Nashotah*, and *Waneyanda*. As many as five vessels belonging to the 177-base number may have been hauled ashore on four marine railways built by Western Marine & Salvage Company at Sandy Point, and were reduced by burning and then possibly buried in the adjacent terrace.

An analysis of the known 177 U.S. Shipping Board Emergency Fleet ships in the Liverpool Point-Sandy Point-Widewater triangle suggests the parameters of main elements of the resource base therein.

A total of 153 vessels are of known gross tonnage, and 24 are unknown. The known total gross tonnage is 397,744 tons. The average gross for the 153 vessels of known tonnage is 2,599.63 tons per vessel. An estimated gross tonnage for the 177 USSB vessel total is 460,134.51. The estimated tonnage total for the 218 ship fleet is 719.34 gross tons. The vessel with the largest registered gross tonnage capacity is *Horado*, at 3,354 tons. The vessel with the smallest gross tonnage capacity is *Bayou Tech*, with 2,368.

A total of 153 vessels are of known net tonnage, and 24 are unknown. The known total net tonnage is 238,939 tons. The average net for the 153 vessels of known tonnage is 1,561.69 tons per vessel. An estimated net tonnage for the 177 vessel total is 276,419.13. The estimated tonnage total for the 218 ship fleet is 340,448.42 gross tons. The vessel with the largest registered net tonnage capacity is *Horado*, at 2,033 tons. The vessel with the smallest net tonnage capacity is *Alabat*, with 853.

A total of 126 vessels are of known deadweight tonnage capacity, and 51 are unknown. The known total deadweight tonnage is 423,259 tons. The average deadweight tonnage per vessel for the 126 vessels of known deadweight capacity is 3,359.20 tons per vessel. An estimated deadweight tonnage for the 177 vessel total is 594,578.40. An estimated total for the 218-ship fleet is 732,305.60 tons carrying capacity. The vessel with the largest registered deadweight tonnage capacity is *Dertona*, at 4,500 tons. The vessels with the smallest deadweight tonnage capacity are *Benzonia* and *Kangi*, each with 3,416.

A total of 154 vessels are of known length, and 23 are unknown. The combined total length of the known vessels, if laid in a consecutive line bow to stern, is 40,996.3 feet (7.76 miles). The average length for the 154 vessels of known length is 266.2 feet per vessel. An estimated combined length for the 177 vessel total, if laid in a consecutive line bow to

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stern, is 47,117.40 feet (8.92 miles). And estimated total for the 218-ship fleet, if laid in a consecutive line bow to stern, is 58,031.6 (11 miles). The longest vessel is *Horado*, at 298.6 feet in length. The shortest vessels are *Moosabee* and *Munra* at 166.6 feet.

A total of 154 vessels are of known beam, and 23 are unknown. The combined breadth of the known vessels, if laid in a consecutive line side to side, is 7,113.9 feet (1.35 miles). The average beam for the 154 vessels of known breadth is 46.2 feet per vessel. An estimated combined beam for the 177 vessel total, if laid in a consecutive line side to side, is 8,177.4 feet (1.55 miles). And estimated total for the 218-ship fleet, if laid in a consecutive side to side, is 10,071.6 feet (1.87 miles). The vessel with the widest beam is *Horado*, at 49.9 feet in breadth. The vessel with the narrowest beam is *Mahnet* at 42.2 feet.

A total of 154 vessels are of known depth, and 23 are unknown. The combined depth of the known vessels is 3,699.7 feet. The average depth for the 154 vessels of known depth is 24.02 feet per vessel. An estimated combined depth for the 177 vessel total is 4,251.54 feet. And estimated total for the 218 ship fleet is 5,236.36 feet. The vessels with the greatest depth are *Brampton*, *Kasota* and *North Bend*, with 28.0 feet. The vessels with the least depth are *Battonville*, *Obak*, and *Tuwetanka*, with 22.2 feet.

Of the known horsepower capacity for the 154 vessels, two vessels, *Dertona* and *Calala*, were capable of 1600 horsepower. Ten vessels were capable of 1500 horsepower. A total of 139 vessels were capable of 1400 horsepower. Two vessels, *Munra* and *Lonoke*, are noted at 1385 horsepower, and one vessel, *Botsford*, was noted at 1350 horse- power.

A total of 6,680 men manned the 154 vessels in for which a complement capacity is recorded. The average complement numbered 43.38 men. An estimated total of 7,678 men would have manned the 177 ships of the Emergency Fleet known to have been brought into the Potomac. An estimated total of 9,457 men would have been the estimated complement for the 218 vessels that were to have been brought in. The ship *Alabat*, with the smallest net tonnage, was the most heavily manned vessel of the fleet, with 64 men. The *Swampscott*, with only 26 men, was the most lightly manned of the fleet.

Of the 154 vessels documented, 46 were constructed primarily of yellow pine, one of white oak, one of oak, 85 of fir, one of white oak and yellow pine, seven are composites of iron and wood, twelve are noted only as constructed of wood, and one of pine, but no description.

A total of 126 vessels of the 154 documented USSB total were powered by single 3-cycle triple expansion engines. Twenty-four vessels were powered by twin 3-cycle triple-expansion engines. Two vessels were powered by steam turbine engines with two water tube boilers. Two more are noted only as being powered by steam turbine engines.

A single vessel among the 154 documented ships was released for scrapping in 1922. Fifteen more were released in 1923. A total of 83 were released in 1924, and 55 in 1925. One among those designated for reduction in 1925, however, may have been transferred to Philadelphia. A total of seven Emergency fleet vessels, all undocumented, were lost through fire and foundering off Widewater in 1923.

Of the 154 vessels fully recorded in Mallows Bay in 1929, eight of the nine major Emergency Fleet wooden and composite steamship design types were represented by the vessel population. The most numerous type was the Ferris single screw ship, which totaled 116 vessels. The second most common were the Hough twin screw ship, which totaled fourteen vessels, and the McClelland single screw ship, with eight vessels counted. There were four each of the Supple and Ballin single screw ships, the Peninsula single screw ships, and the Pacific American twin screw ships. Three Grays Harbor twin-screw ships, and a single Dougherty single screw ship were also counted among the fleet. The Allen single screw ship was the only wooden vessel type produced for the U.S. Shipping Board's wooden steamship fleet that was not present, at least among the identifiable population. Thus, the 1929 fleet population was comprised of 17 twin-screw and 137 single screw vessels.

Of the 154 vessels built between 1917 and 1920 [see Table 2] and documented as present in Mallows Bay in 1929, the primary construction woods were fir (81 vessels) yellow, hard or pitch pine, (48 vessels). White oak, live oak, spruce and

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locust were also employed. Seven vessels were of composite construction. A total of 132 vessels were noted as having been fitted with galvanized fittings, although the remainder were probably also equally outfitted. A total of 116 vessels are recorded as having steel or iron strapping on frames. Seventeen vessels had five bulkheads, 131 had four bulkheads, one had only three bulkheads, and bulkheads were not counted in five vessels. [See Table 3]

The documented population of 154 vessels was produced by 58 shipyards on the East Coast produced 19, Gulf Coast 14, Pacific Northwest Coast 21, and the California Coast 4. The first vessel to be completed was the *North Bend*, in December 1917. The last vessels were *Boynton* and *Wonahbe*, completed in March 1920.

Of the ten remaining vessels known to have been lost in the Mallows Bay study area — *Accomac*, *Bessie Lafayette*, *Black Bottom*, *Capitol*, *Edythe*, *Mermentau*, *W.S. Childs*, a Virginia State Navy longboat, an unidentified oyster boat; and the USS *Nokomis* — one was a steel hulled ship, one a composite hulled vessel, and the remainder were constructed of wood. Two vessels were military craft, one a ferryboat, and the remainder were employed in the fishing industry or in light freight hauling. Six were intentionally abandoned, one was scrapped, one was lost due to military action, and two were accidental losses. The Army Corps of Engineers 11 August 1929 map of Mallows Bay indicates two unidentified schooner wrecks lying in Liverpool Cove. Either *Bessie Lafayette*, *Black Bottom*, *Capitol*, *Edythe*, or *W.S. Childs* may account for one or both of these.

Identification, Clustering, Migration, and Vessel Population Growth

The record of USSB hulls and other vessels within the Mallows Bay study area is one of dynamic movement and migration. From the first usage of Mallows Bay and Sandy Point by the Western Marine and Salvage Company [WM&SC] in March 1925 to the present time, the ship remains in the primary study area have been subjected to both natural and human factors causing the almost ceaseless movement of many hulls within and beyond the embayment.

The record of movement is of paramount importance to the identification of the study area shipwreck population extant today. Documentation of the motions of individual vessels over time is attainable through a thorough examination of the archival, cartographic, photographic, and archaeological record. This has permitted the development of a model of the sequence of movement of vessels, primarily within the Transect 2 embayment, and to a lesser degree vessels lying within the remaining transects as well.

The development of the profile of the sequential movement of hulls was carried out by the creation of site overlays of Transect 2 redrafted from U.S. Army Engineers site plans, U.S. Department of Agriculture aerial photographs, and other photographs produced between 1929 and 1998.

The most significant map is the 1929 Army Engineers chart, which identifies by name 154 USSB hulls at Mallows Bay and Sandy Point. The original map was too fragile to copy directly for this study. Thus a blueprint was made to serve as the basis for later study and redrafting for this report. A 1944 linen map showing the grounding area was too fragile even for blueprint copying and has not been employed. Aerial photographs upon which it was originally based, however, have been employed to address the deficiency.

The 11 August 1929 Army Engineers map [see Map 3, redrawn from original OCE map showing 1929 sites in Transect 2] may be considered the “Rosetta Stone” of Mallows Bay since each USSB hull, shown in its grounding location and assigned an identification number by the U.S. War Department, was listed on the map by name and assigned number. This map has been redrawn and is shown as Map 3. All but two hulls are situated with their bows facing east. The date upon which the release of performance bonds were approved for 91 vessels was also noted in a margin box. Two of the vessel population, *Obak* and *Botsford*, believed to have served as dormitory ships at Sandy Point, were the only vessels of the 154 USSB population not lying directly in the Mallows Bay grounding area. Two unidentified schooner wrecks, however, were also indicated, one on the south shore of Liverpool Cove, and the second lying squarely in the entrance to the cove. The geographic parameters of the grounding and burning area authorized by the War Department by permit dated 24 July 1925 and reissued 21 December 1928 are indicated on the map as are depth soundings, property boundaries (Western Marine and Salvage Company, Wilson, Wright, and Baker), four marine railways and miscellaneous buildings at

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Sandy Point. Range markers, and USCG monuments are also shown. All vessels and other features are to scale, an important consideration in efforts to identify corresponding vessels by name and number from later aerial photographs.

The 1929 chart serves as the basic template upon which clustering data and the sequence of hull movements, as well as the final disposition and identification of extant sites, has been drawn. By enlargement and comparison of chronologically successive maps, charts and photographs, it is possible to reproduce a reliable overview of the movement of the hulls in the study area over time. Archival data pertaining to the motion of some vessels provide additional insight, and occasional identifications of specific ships in motion, from which conclusions may be drawn regarding the volatility of some and stability of other vessels in the study area.

Clusters and Tiers

Through an analysis of the vessel numbers indicated in the 1929 chart, and the rough linear tiers in which the hulls were assembled, it appears likely that the vessels were moved into the embayment in numerically sequential clusters, first into the lower embayment grounding area (Nos. 1-9), then into the upper central area (Nos. 18-28), and into the upper sector (Nos. 33-60), and finally into the lowest quadrant (Nos. 130-152). Smaller clusters and individual vessels were employed to occupy the gaps between until the embayment was entirely filled. [See Map 4] As all of the vessels, having had their engines, boilers and propulsion systems removed at Alexandria, Virginia, were without a means of autonomous movement, they were undoubtedly hauled into the embayment by means of tugs and other vessels known to have been employed by WM&SC.

Some efforts appear to have been undertaken to assemble the vessels in a rough but linear order, in at least six tiers. By 1929, four years after the first vessels had been hauled into Mallows Bay, most of the grounded vessels had already begun to migrate, actions which were undoubtedly precipitated, as in later years, by unusually high tides or storms which broke up the integrity of linear groupings. That vessels were organized in rough linear fashion, numbering from ten to 31 vessels in a row is suggested by the linear formats adopted for the anchorages in the War Department authorized Widewater Grounding Area from 1924 to 1925. The arrangements of hulls side by side in the tightly packed bay generally facilitated the ready mobility of scrap salvors from one ship to another without the necessity of small boats, and promulgated a more efficient reduction of superstructures during episodic mass burnings. The most successful and dramatic such burning occurred on 7 November 1927 when 31 hulls, lined up side by side, were set afire as a single unit and efficiently burned to their waterlines by only ten men.

The numbered and clustered units and tiers, which are evident in the 1929 map, were subsequently altered by man and nature, and today retains only a vestigial resemblance of their original form. However, both the clustering and tier formats contributed appreciably to tracking the migration of most vessels as they moved about the embayment overtime, as well as the identification of hulls introduced later on into the general wreck population, drawn from both the cartographic and photographic record, show not only the positions, identities, and designated U.S. War Department numbers of vessels in Mallows Bay during five significant moments in time — 1929, 1936, 1943, 1952, and 1998 — but also the probable cluster units and tiers as they moved overtime. [U.S. War Department numbers, issued by the Army Corps of Engineers, addressed hereafter are prefixed with the initials “WD” to differentiate them from project survey numbers assigned during the course of the Mallows Bay Survey (1986-1994) which are prefixed by the letters “PS”].

Movement

The causal factors for the movement of vessels in the study area and beyond are both natural and man-made. The natural forces of wind and water, and the natural buoyancy of wooden hulls lightened by salvage operations, account for the movement of many wrecks. Despite regulatory directives issued by the War Department during the management regime of WM&SC, and the employment of nets around ships being reduced (to prevent the drift of debris), it appears that efforts to stem the movements of wooden hulls from both the Widewater Anchorage and Mallows Bay, caused by storms and powerful tides, was often unsuccessful. In 1929 the depth of water in the main grounding

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area at Mallows Bay ranged from 9.4 feet at the northwestern extremity of the authorized burning area to 4.2 feet in the embayment itself. Although the prevailing water flow was roughly parallel with the angle of the grounding area's western border, the embayment itself and the ships therein were sheltered from northerly and southerly winds by steep bluffs on all sides. The northern extremity of the embayment, however, was situated below a modest indentation in the shoreline below Sandy Point, and was thus subjected to a slightly greater current flow as the river passed by and was inducted into the declivity. This has caused significant erosion of the shoreline bluff at this point, often as much as two to four feet per year, which served to contribute to an increase in current velocity. Not surprisingly, the most dynamic movement of hulls caused by water flow and weather was in this northwest extremity of the embayment.

The second most prominent naturally induced movement of vessels occurred along the westernmost line (Tier 6) of vessels in the embayment. Vessels lying in this area were often imperfectly grounded, with bows wedged tightly into the bay bottom, but sterns only loosely wedged, owing to as much as a five foot slope of the bottom in less than 100 yards. In 1929, the stern of no fewer than 21 ships projected well near the western limits of the grounding and burning area, eight of which were dramatic projections near the edge of the main river channel and served to obstruct water flow. During the post-WM&SC period (1932-1942), when "wildcat" scrap salvors employed dynamite and other means to loosen metal from the hulks, a number of vessels on the outer perimeter were sufficiently lightened that they occasionally floated free from the bottom sediments in which their hulls had become lodged.

By comparison of relevant maps between 1929 and 1936, a total of four hulls (WD Nos. 37, 38, 39, and 106) are indicated to be absent from the original population. It is presumed the hulls drifted off or, less likely, were entirely reduced by scrap salvors. The ships *Obak* and *Botsford* cannot be accounted for, but may be among eight unidentified USSB hulls that appear to be newly arrived in Transect 2 during this same period. Of these latter vessels, it is likely that some are unnumbered vessels brought up from the War Department USSB Emergency Fleet grounding area at Clarendon, Virginia, on the James River, the original mothball anchorage area for the fleet. Others may actually be among those vessel noted as missing, or count *Obak*, or *Botsford* among their numbers.

The third most prominent migration occurred in the embayment along the eastern tiers during the period 1952-1988 when at least eight hulls (PS Nos. 1, 16, 17, 18, 19, 20, 21, and 24) were driven onto or adjacent to the beach along the northern shoreline of Transect 2. The precise identity of three of these vessels (PS Nos. 16, 19, and 21) is conjectural, and is primarily based upon size and general typological data derived from archaeological investigation. It is not clear whether the cause of the movements of these eight hulls was natural or human induced. The impact of the stranding of one hull, (PS No. 1), which resulted in the termination of normal current flow through the northwest entrance to the embayment and the partial burial of the hull beneath a sandbar, may have altered the overall hydrology of the river along the western tier and in the embayment itself, with unpredictable consequences.

Several well documented incidents of movement of hulls from Mallows Bay and Widewater study areas are known. The first occurred on 8 February 1937 when a hull, one of seven which had been reduced at Brent's Marsh and sunk in the shoals in 1922 and 1923, was lifted by unusually high tides and drifted 15 miles down river before being returned to the Brent's Marsh area. On 26 April 1937, two vessels left Mallows Bay on another unusually high tide. One of the vessels, discovered floating in the shipping channel off Maryland Point, was hauled onto a shoal on the Virginia shore, where it remains today. The second vessel was blown across the river, upstream, to a small channel cut below Chopawamsic Creek, Virginia, and could not be removed. On 28 May 1937 it was reported that WD No. 153, an unnamed USSB vessel which had been introduced to Mallows Bay sometime after 11 August 1929, had drifted from its position and come to rest 2,000 feet from W. B. Lee's shore near Brent's Marsh, and 500 feet below the seven aforementioned hulks in that area. The hull at Chopawamsic, by that date, had yet to be moved. A third hull, WD No. 117, had drifted "immediately outside the grounding area at Mallows Bay parallel with the channel and near the general assemblage of wrecks." [Luplow to Chief of Engineers, 8 May 1937] This hull moved 30 feet channelward from a position between WD No. 34 and a newly introduced but unidentified ship, WD No. 157. No. 117 was prevented from further movement by lashing it to WD No. 157.

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From time to time, as evidenced by the appearance of unnamed USSB hulls, usually in the western tier, or at the northwestern extremity of the embayment, vessels continued to move about or disappeared altogether, presumably having drifted off. Occasionally, they would be returned through government efforts, and deposited in places of convenience rather than in their former positions. Between 1947 and 1952 one hull, believed to have been the USSB hulk stranded at Chopawamsic in 1937, was deposited at Sandy Point and secured to the shore by steel cables attached to trees inland to prevent it from drifting away again. This site, assigned Project Survey No. 74 in 1986, is gradually being encroached by the shoreline. A sandspit is developing below its southernmost remains.

The disappearance of hulks continued well after the total reduction of scores of vessels by Bethlehem Steel Corporation during World War II. Between 1947 and 1952 eight hulls (WD Nos. 49, 60, 64, 65, 69, 70, 79 and one unnamed vessel) vanished from view in the embayment. As all of the seven numbered hulls were ringed in the embayment by scores of other hulls that were not moved, and which are still there today, and as no scrap or salvage operations are known to have been carried out during this period, it is considered altogether possible that these hulks may have become entirely submerged and still rest within the bay, covered by sediments and without any surficial evidence remaining to betray their locations.

Between 1952 and 1988, two USSB hulls, PS Nos. 38 and 80, were dragged to the southern extremity of the embayment, by the U.S. Government and abandoned, while two more unnamed hulls apparently drifted from the embayment to unknown locations. Of these four vessels, only PS No. 38 has been partially documented. In an account dated 13 August 1979, the hull, unnamed or numbered, is noted as having broken loose from the main enclosure in Mallows Bay and drifted away during a hurricane. The hulk was soon afterwards secured by the U.S. Coast Guard and returned to the general embayment area (but not to its original grounding site), where it was again grounded and then secured by cable to the remains of the steel car ferry *Accomac* [Fred W. Hopkins, p.c. 23 January and 9 September 1993].

Not all movement of hulls was natural. Managed movement of many vessels was a necessity during the various efforts to salvage scrap metal from the USSB fleet. The migration of most vessels during the WM&SC regime prior to 1929 cannot be documented from the extant record and is still problematical. It would appear that the movement of entire vessels, per se, by freelance scrap salvors prior to World War II, was most likely not undertaken, although the lightening of hulks by them caused several to drift away during high waters or in storms. Between 1943 and 1947, primarily as a result of the efforts of the Bethlehem Steel Corporation, from 56 to 59 vessels, and possibly more, were removed from the main Mallows Bay grounding area and presumably entirely reduced in the Burning Basin. To facilitate the movement of these vessels into the basin, several channels were dredged, between the basin entrance and the river. The main channel line, running east-west and still extant in vestigial form, was intersected by another, running north-south along the eastern shoreline of Mallows Bay. A third and far narrower auxiliary east-west channel was cut just above the southern boundary line of the grounding area to intersect with the north-south channel. A second and far shorter north-south channel was also cut to the western shore of Liverpool Cove. Spoil from the dredged materials generated by the construction of the Burning Basin and the cutting of the channels, was deposited along the northern boundary of Liverpool Cove and at the northern lip entrance to the basin itself. Four islands were created from the spoil, all but one of which had entirely eroded away by 1986. With convenient deepwater access to the Burning Basin thus provided, the movement of hulks into the basin could be more efficiently conducted.

Archival and archaeological evidence of concerted and repeated efforts to prohibit the drifting of vessels from the earliest period of the WM&SC regime through the 1960s indicates the adoption of the following methods: (1) the stationing of personnel upon or near the fleet as monitors; (2) the erection of nets around areas specifically designated for the burning down of hulks; (3) the reinforced securing of maverick vessels to trees or to other more securely stabilized vessels by steel cable; (4) the filling of hulls with sands, gravel or sediments to weight them down in place; (5) the construction of a levee by filling the exposed western outermost tier of hulls and the spaces between them with soils to create a solid barrier at Mallows Bay; (6) the erection of a line of pilings around the entirety of Mallows

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Bay; (7) the removal of all hulls in Mallows Bay to another location.

Despite the abovementioned efforts, comparison of map data between 1929 and 1936 indicates that virtually all of the Mallows Bay USSB vessel population experienced some degree of movement, though only four vessels were apparently removed from the scene and eight more added. Despite such movements and reduction operations by scrap salvors, the total 1929 USSB population in the embayment had grown by 1936 to 158 vessels.

Between 1936 and 1943, stabilization had occurred along the three western tiers of vessel and the central to southern sector of Tier 3, although there appears to have been substantial disruption at the northern extremity of Tier 6. As the Bethlehem Steel Company began the removal of hulls from the southern extremity of Tiers 1 and 2, creating some narrow areas for free drift, the vessels in the upper sectors of those tiers began to shift position slightly. During this period, one vessel (PS No. 23), the northernmost in Tier 5, was either drifted or intentionally pulled abruptly into the base of a shoreline ravine. At the end of this same period 14 identified USSB hulls are no longer in evidence, but three unidentified USSB hulls have appeared in other locations.

During the period 1943-1952 general stability of the vessel population is evident in all but the northernmost extremity of Tier 6, and in the remnants of the Tier 1 section. The modest migration of vessels in Tier 1 may be attributed to the removal of scores of hulls in Tiers 1, 2, and 3 sectors by the Bethlehem Steel Corporation during its World War II operations and the creation of a wide fetch of open water. During this period 48 identified and one unidentified vessels are no longer evident in Mallows Bay. Three unidentified USSB vessels appear elsewhere in the bay, while one more appears at Sandy Point, and another in Liverpool Cove. The extant USSB vessel population in 1952 included 86 identifiable vessels, and ten unidentified in Mallows Bay, one unidentified at Sandy Point, and one unidentified in Liverpool Cove.

During the period 1952-1998 the majority of vessels in the embayment maintained their positions, although there was again significant movement at the northern end of Tier 6, and in the northern sectors of Tiers 2 and 3. A single unidentified vessel (PS No. 1) in Tier 1 drifted ashore and swung into a north-south orientation, effectively blocking water egress into the upper embayment. The most significant movement, however, occurred as half a dozen vessels, the remnant of Tier 1, moved onto the beach, or almost parallel with it. A total of ten identifiable and two unidentified USSB vessels are no longer evident in the embayment (although as many as six may lie entirely submerged and undetected). The Sandy Point and Liverpool Cove USSB hulks remained in place.

On 11 August 1929 the identified grounded USSB vessel population in the Mallows Bay-Sandy Point-Widewater triangle totaled 161 USSB ships (152 at Mallows, two at Sandy Point, and seven off Brent's Marsh). On 1 January 1998, a total of 87 USSB vessels may be accounted for (66 identified, six probable identities, and 15 unidentified at Mallows, one unidentified at Sandy Point, one unidentified in Liverpool Cove, and one unidentified at Chatterton's Landing, Virginia). Seven wrecks off Brent's Marsh, are known by name but have yet to be individually identified. At least one possible buried hull at Sandy Point, briefly encountered in 1994 but not systematically verified as a vessel site, should be added as a potential land/marine site. And finally, the possibility of six more vessel sites lying entirely undetected in Mallows Bay must also be considered. [See maps 3 thru 13 and Table 4]

Vessel Population Growth

The documented shipwreck population of 187 vessels in the study area, that is, watercraft determined from the archival record to have foundered, burned, been abandoned, or lost in other ways in the Mallows Bay-Sandy Point-Widewater triangle, has already been discussed. The extant vessel population as of 1 January 1998, which will now be addressed, is based upon the archaeological record, as evidenced by the physical remains of vessels discovered in the study area to that date. The extant population is directly related to the growth and reduction process of the overall shipwreck population, but also includes vessel sites undocumented in the archival record or introduced prior to 1929 and evidenced only in the archaeological record.

That vessels were lost or abandoned in the study area prior to the regime of WM&SC is apparent from both

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the archival and archaeological record. That unidentified USSB vessels were admitted to the study area during the regime of WM&SC is also well evidenced. However, the physical record, enhanced by the photographic record, provides additional data regarding the admission of vessels specifically to the Sandy Point-Liverpool Point-Mallows Bay triangle from 1936 to the present.

During the work of WM&SC in Mallows Bay, from 1925 to 1931, and during the “wildcat” scrap operations from 1932 to 1942, a number of non-USSB vessels were abandoned or lost in the main, study area. In 1926, the sturgeon fisheries operations of Morgan Monroe, based at Liverpool Point, were closed. Possibly as a result of the occupation of Mallows Bay by WM&SC, the company’s small fishing fleet, comprised of the sturgeon fishing skiffs *Black Bottom*, *W.S. Child*, and *Edythe*, was abandoned in the area. Between 1929 and 1936 a large wooden industrial barge (PS No. 3) was abandoned in the northernmost sector of the embayment, presumably by either WM&SC or independent salvors. The four-masted schooner *Ida S. Dow*, which was anchored off the southern sector of the embayment by wildcat salvors in 1934 to serve as a dormitory for wreckers, was moved to an anchorage in its southernmost reach and was grounded and abandoned at a third, but nearby position, in late 1936 or early 1937. By 1998, erosion of a shoreline sector on the southeastern corner of Transect 2 revealed two barges (PS Nos. 6 and 7), side by side. This eroding landmass was originally created by Bethlehem Steel ca. 1942-44 from spoil produced by the dredging of channels and excavation of the Burning Basin. As neither barge appears in aerial photographs of the 1936 and 1937 period, both were probably were abandoned between 1937 and 1942.

By June 1943, after the arrival of the Bethlehem Steel Company, four more barges are indicated in aerial photographs of the embayment as lying in the northernmost sector of Tier 6, and another in the southernmost extremity of Tier 2. The barges in Tier 6 were undoubtedly introduced either by the wildcat scrap salvors or by Bethlehem Steel. It is probable that the barge in Tier 2, which appears to have been on an anchor line, was in service at the time and would thus have been under the management of Bethlehem Steel and was not abandoned as were the barges in Tier 6 (the physical remains of which were still in evidence in 1998). In 1944 two smallboat wrecks are indicated lying immediately to the north of an unidentified USSB hulk in Liverpool Cove (PS No. 107), but both small wrecks were no longer present by 1994 when archaeological survey of the area failed to find any evidence of them. During this period, the ex-Navy patrol boat *Nokomis* was brought into Mallows Bay for scrapping, but its ultimate disposition is unknown. By June 1952, an additional three barge wrecks appeared in the northern extremity of Mallows Bay (one of which was gone by 1998) and another in the southern end of Tier 5.

Between 1952 and 1998 many more vessels were introduced to the wreck population of the study area. A wooden barge (PS No. 78), possibly removed from the northern end of Mallows Bay after June 1952, was in evidence at Sandy Point. A houseboat mounted on stilts (PS No. 50), and a wooden search and rescue vessel (PS No. 131) were abandoned near the approach to the Burning Basin gate. Between 1971 and 1979 the car ferry *Accomac* (PS No. 35) was abandoned near the main channel leading from the Potomac River to the Burning Basin. The menhaden fishing boat *Mermentau* (PS No. 77), which had been serving as a floating private residence, was driven ashore in a storm *Accomac* (PS No. 35) was abandoned near the main channel leading from the Potomac River to the Burning Basin. The abandoned menhaden fishing boat *Mermentau* (PS No. 77), which had been serving as a floating private residence, was driven ashore in a storm upon Liverpool Point ca. 1982 [Reed Scott, p.c.]. This vessel was largely reduced to skeletal remains ca. 1996 by the Maryland Derelict Boat Removal Program. Inside the Burning Basin, a wooden barge (PS No. 49), which may have been introduced prior to 1952, most likely during the latter days of the Bethlehem Steel operations, and two smallboat wrecks (PS Nos. 98 and 124) believed to be of historic or architectural importance also appear.

Typological Variants Represented in the USSB Wooden Steamship Population

A total of eight wooden and one composite steamship designs emerged during the United States Shipping Board’s Wooden Steamship Emergency Fleet construction program in America. The principal design, designated as the Ferris type, was named after its designer, Theodore E. Ferris, Chief Naval Architect for the USSB. The Ferris type served as the basic

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design for most vessels constructed in the program. However, a variety of related typologies evolved, some independently while others developed directly from the basic Ferris format. Owing to the inadequacy of some extant shipyards to accommodate the assemblage of certain design specifications, and the rapid evolution of USSB policy regarding plans, production, and equipage, no fewer than eight basic wooden vessel types and one composite vessel type were produced, each with its own unique features, dimensional characteristics, and layout.

These designs, designated as Ferris, Hough, Supple and Ballin (or Balin), Grays Harbor, Peninsula, Pacific American, Daugherty, and Allen for wooden steamships, and McClelland for composite ships, formed the totality of design formats for all wooden and composite ship construction during the program. Of these types, only the Allen, of which only one was constructed, has not been documented as being represented in Mallows Bay in 1929. All typologies except the Allen and Daugherty types have been documented as represented in the extant USSB wooden steamship shipwreck population in Mallows Bay as of 1 January 1998.

Although a total of at least 177 vessels of a possible 218 can be definitely verified as having been brought into the Potomac, the basic typological information ascertained during inventory work at Mallows Bay has focused on the 154 ships documented in the 11 August 1929 Army Engineers map. Vessels which are known to have been brought into the Potomac but not verified as having been deposited in Mallows Bay, and USSB vessels noted on subsequent maps and charts but which are unidentified by name, are not addressed in the typological assessment.

Not surprisingly, the most common vessel class, 75.32 percent of the total, is the Ferris type, followed by the Hough type, with 9.09 per cent. The McClelland type accounted for 5.20 percent, while Supple-Ballin, Peninsula, and Pacific American accounted for only 2.60 percent each. The Grays Harbor type accounted for 1.95 percent, while the Daugherty type represented only .08 per cent of the population.

Of the original 154 vessels identified by name, a total of 69 have been determined to remain in the Mallows Bay study area as of 1 January 1998. An additional 6 vessels have been tentatively identified. Twelve more wooden and one composite USSB vessel, which have been verified as present in the Mallows Bay study, are unidentified. Of the 75 USSB vessels identified by name, the Ferris type, at 70.27 per cent of the total, and Hough, at 14.87 percent, were the most common. Supple-Ballin accounts for 5.41 percent of the total, and was followed by Peninsula, with 4.05 percent, Pacific American, with 2.70 percent, and McClelland and Grays Harbor, each with 1.35 percent of the total. No Daugherty is verified by name as present.

Of the 16 states on the Atlantic, Gulf, and Pacific coasts in which vessels in the base population were produced, the largest number, 36.36 per cent, came from Washington, and 18.83 per cent from Oregon. Indeed, the Pacific Coast states of Washington, Oregon, and California produced 59.74 per cent of all 154 identified USSB wooden ship hulls reduced in Mallows Bay, followed by the Atlantic Coast states with 25.32 per cent, and the Gulf Coast states (including the west coast of Florida) with 14.94 per cent.

Of the vessels remaining in Mallows Bay as of 1 January 1998, the largest number, 37.85 per cent, were produced in Oregon, while 12.16 percent were produced in Washington shipyards. Pacific Coast shipyards produced 52.70 per cent of the entire extant identified population, while Atlantic Coast yards produced 31.08 per cent of the population, and Gulf Coast Yards generated 16.22 per cent of the total.

A total of 58 shipyards were engaged in the production of the 154 wooden steamship population lying in Mallows Bay as of 11 August 1929. The most productive shipyards were: Grant, Smith, Porter Company, of Portland, Oregon (24 ships); The Coast Shipbuilding Company, Portland, Oregon (7 ships); and G.M. Standifer Construction Corporation, Portland, Oregon, with yards in Vancouver, Washington, Portland and North Portland, Oregon (6 ships). Of the shipyards represented, 19 were located on the East Coast, 14 on the Gulf Coast, and 25 yards on the West Coast, although several of their corporate offices were not located at the yard sites, and in some cases not even in the same states as their yards. The products of a total of 41 shipyards — 14 on the East Coast, 9 on the Gulf Coast, and 18 on the West Coast — are represented by the identified USSB wooden steamship population in Mallows Bay. From extant archaeological data, it is as yet impossible to provide origins of the 15 unidentified wooden and the single composite USSB ships lying in the

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study area.

The only Maryland shipyard represented is the Maryland Shipbuilding Company, of Sollers Point, Maryland, which built the *Guilford* (site No. 108), a 3588-ton standard a Ferris type vessel, completed in April 1919, and constructed of yellow, hard, or pitch pine, with galvanized fittings, iron strapped on frames, and four bulkheads.

No Virginia or District of Columbia shipyard is represented in the Mallows Bay shipwreck population. [See Tables 5 thru 9 and Map 14]

Landscape Change

The various regimes of shipbreaking in and about Mallows Bay intentionally incorporated numerous alterations of the terrestrial and marine environment to further the goal of the wholesale reduction of the USSB fleet in the most profitable manner. As a consequence of these efforts, and the very act of grounding hundreds of great ships in the shallows of the embayment, the environment itself was notably modified. The alterations of the landscape, in many cases, are still evident in the archaeological record. The impact of these changes and the presence of the ship hulls continue to serve as a catalyst for the transformation of the local ecosystem. These mutations have been directly influenced by the presence of the fleet remains, and in turn have asserted a marked impact upon the maritime archaeological resources themselves.

Prior to the admission of the USSB fleet, Mallows Bay served as a fishing grounds for commercial fisheries. Indeed, the two bases for the Monroe fisheries of the late 19th and early 20th century period were erected on the two extremities of the embayment, at Sandy Point and Liverpool Point. It was perhaps no coincidence that the arrival of the fleet corresponded with the termination of the Monroe sturgeon fisheries and the closure of the Monroe caviar processing operations, and most certainly assured the end of the bay as a fishing ground. By the close of World War II, Mallows Bay had become an environmental disaster. The last stand of the Potomac snowy egret had been filled with the detritus of salvage, the spawning and feeding grounds of myriad species had been significantly altered, and the shipwreck population that remained occasionally posed as hazards to navigation. By the late 1960s, however, natural forces began to reassert themselves causing the embayment to transform again. These changes may be examined in the archaeological record for each significant period of evolution from 1923 to the present. No evaluation of marine or terrestrial landscape change was carried out during the 1986-1994 archaeological investigation of the Widewater region was carried out.

Landscape Alterations in Transect 1

The most significant alteration of the terrestrial landscape related to the historic marine environment during the WM&SC regime was carried out at Sandy Point, where the company constructed four marine railways, a wharf, and several small structures. By 1924 the marine railways were reportedly in use: "The hulls are now hauled out on skidways at Sandy Point, Md., and burned on the beach in five to eight feet of water," reported one Army Engineer in May [Beach to Moore, 10 June 1924, OCE]. Company equipment was also housed at Sandy Point, and may have been enclosed in fenced yards. The 1929 Army Engineers plan of Sandy Point indicate four marine railways had been erected, spaced apart at 30-foot intervals. Each railway was 250 feet in length, and 15 feet in width, and projected from the shore into the nearshore waters on a SSW angle. The actual construction specifications and materials used are unknown. If these dimensional specifications are correct, however, it would have been impossible to haul more than two vessels out at a time since the overhang on each side of the centerline of a railway to the intersect with the midway of the overhang of an adjacent railway would have been 22 feet 6 inches. The standard Ferris type steamship had a beam of 46.3 inches, which, when halved, would have been 7 feet 6 inches too wide on each side to permit another vessel of the same size being hauled onto the adjacent way.

In 1993-1994 an effort was undertaken to evaluate the historic and contemporary aerial photographs of the Sandy Point sector of Transect 1 to pinpoint the precise position of the railways. Only one photograph, taken in 1952 [Figure 1],

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provided evidence of the four features. Computer enhancement of the photograph indicated not only the possible location of the marine railways, but the vestigial traces of paths and roadways. As suggested by soil color variants, the railways were not precisely parallel with each other as indicated in the 1929 plan. Also shown is an unidentified USSB vessel that had drifted from the main anchorage and was later returned to the Maryland shore and tied in place to trees by steel cables.

For the benefit of survey identification, each railway feature was numbered, with No. 1 being the northernmost feature and No. 4 being the southernmost. Each of the sites is oriented in an east-west direction. No. 1 is estimated to be 170 feet in length and 15 feet in width. No. 2 is 210 feet in length and 20 feet wide. No. 3 is 235 feet in length and ranges from 20 to 35 feet wide. No. 4 is 250 feet in length and 20 feet wide. None of the soil stains indicates a closer proximity to the waterline than 30 feet. This is not surprising since accreting sands continue to expand the beach as a result of the alteration of the natural shoreline by the anchorage of PS No. 74, 200 feet to the north. The conjectured railway features are separated by distances ranging from 15 to 20 feet. If these features are, indeed, evidence of the railways, it is certain that no more than two vessels might have been admitted to the ways at one time.

It is of some note that the 1929 map fails to indicate any evidence of the wharf built by WM&SC. The archival record verifies the establishment of a wharf. The wharf is only evidenced in the 1952 aerial photograph, although only the pilings are still in evidence at the site today. It is possible that the wharf, which was constructed without benefit of a permit, and its use prohibited by the Corps of Engineers, may have been removed and another later erected at some period between 1936 and 1952. It is also possible that the site was underwater when the aerial photographs were taken. If the soil stains suggestive of marine railways are indeed evidence of the railway, No. 2 railway extended slightly to the north of the wharf. This suggests the intended utility of the wharf as a support platform for the reduction operations, and not simply as a receiving station for loading and unloading watercraft.

The marine railways failed to meet the expectations of WM&SC. By March 1925 it was reported that due "to inequalities of the bottom on which the skidways were placed and the inability to secure an even pull from the pulling units," the arrangement had proved a disappointment, and was soon abandoned. Only five hulls had been removed [O'Connor to Chief of Engineers, 8 May 1925, OCE; Bacon to Pistole, 1 October 1925, OCE].

The 1952 aerial photograph also revealed evidence of two roadbeds, one leading directly down from the bluff to the east to the beach on the west, and the other leading from the southern shoreline northward. Both roads intersect approximately 70 feet SSW of No. 4 marine railway. A diagonal roadbed also cuts from the shore road and intersects with the bluff road near the base of the bluff, forming a shortcut when moving from the bluff to the south shore. Several smaller paths extend from all three roads.

Field survey work at Sandy Point was undertaken to ascertain the possible presence of archaeological remnants of the wharf, the railways, the roadbeds, surviving structures and foundations, debris fields, and sunken or buried shipwrecks. To facilitate non-intrusive investigation, sub-soil radar and a hand-held magnetometer were employed. The sub-soil radar unit was a Subsurface Interface Radar (SIR) System 8, with an ADTEK Model SR-80041 line scan recorder and was loaned to the project by the National Geographic Society. The hand-held magnetometer was a Jetco Searchmaster loaned to the project by John Mitchell and Associates.

An examination of the surficial features at Sandy Point resulted in the location of one building foundation and a standing structure. Adjacent to the foundation site, a 30-inch concrete sewer pipe, inserted into the ground at the foot of the bluff, served as a cistern for water collection. The cistern was fed by a small underground spring. A shallow dry creek bed extended from the cistern westward toward the beach. The creek bed passed through three discrete piles of disintegrating gill net stakes. Stake gill nets were used mostly in the upper half of the Potomac estuary above Mathias Point. Nets were usually put in early spring (March) to catch ascending schools of anadromous fish, primarily striped bass and shad, and were usually discontinued by the end of April. Stake gill net fishing was noted as common from Sandy Point as well as Douglas Point, and was usually carried out from the edge of Mallows Bay all the way across the Potomac to the shoals of Widewater [Lippson, et al, 202-4]

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The northernmost pile of stakes is 38 feet in length, and 19 feet 9 inches wide. Its western end lies across wooden ship timbers to keep the stakes off the ground where they would be subject to rot. The second pile, 29 feet to the south, is 33 feet 8 inches long and 15 feet 1 inch wide. The third pile, which lies 21 feet 3 inches to the south of the second, is 40 feet 4 inches in length and 17 feet 4 inches in width. The third pile, being the most decomposed, is spread out and very shallow in depth. The dry creek bed passes between the first and second pile. To the immediate west of the second and third pile lies PS No. 103. Gill net fishing in this sector of the Potomac has not been conducted since the early 1960s [Fred Tilp, p.c.].

Visible debris from shipwrecks project from the beach area north of PS. No. 78. The shoreline and littoral to the east of it, south of PS. No. 79, is typified by sandy soils and scrub vegetation. A water-filled poulder surrounded by dense vegetation lies southeast of PS. No. 102. Ship parts project from the shores of the poulder. Further south along the beach, shallow berms of sand cover metal debris and cables. The one known USSB wreck in this transect, PS. No. 74, is anchored in place by a cable inland. The bark of the tree has all but overgrown the cable. One five-foot diameter iron tube, possibly a boiler component, was almost entirely buried in the sand.

A systematic sub-soil radar and magnetometer investigation of the tract beginning at the northern gill net stake pile and extending south over and beyond the conjectured locations of the marine railway sites was conducted on 9 May 1994. The investigation was conducted in ten-foot lanes in both a north to south grid, and again on an east to west grid, and covered a north-south line 300 feet long, by an east-west line varying from 30 to 60 feet, extending from the beach line.

The radar investigation indicated spotty disturbances of the sub-soil as well as occasional hard features, but no patterning of intrusions or soil variants readily suggestive of features associated with a marine railway, skidway or roadbed. Magnetometer survey over the same grid noted numerous large gamma targets, several of which coincided with the hard features located by radar survey. None were tested. One target, located and partially exposed at the edge of the beach, proved to be a concrete casing surrounding an 8-inch steel pipe that had been inserted vertically into the ground to an estimated depth of at least six feet. The depth was determined by pressing a rod to the end of the pipe. The feature, located at the western foot of the conjectured position of railway 2, was not a component of a shipwreck, but may be a base for one of the hauling systems.

At a position located approximately at the eastern terminus of railway 4, non-systematic magnetometer survey located a large buried wooden structure, lined with iron spikes or pins similar to those found on USSB vessels. The line was 265 feet in length, and lay in a near north-south orientation. As events precluded further survey, and the site was not revisited latter, the site could not be identified. However, it must be considered a likely candidate for one of the five probable buried shipwrecks at Sandy Point.

Landscape Alterations in Transect 2

By 1924, less than a year after WM&SC began to utilize Mallows Bay on a regular basis, the company established its initial reduction operations center on the Maryland side of the Potomac within the confined of an area authorized by the U.S. War Department. The first burning area was erected near the north end of the bay, along the western edge of the authorized reduction zone. A square section of waterway, 500 feet to a side, totaling 250,000 feet and in waters from 7.5 to 13 feet in depth, was designated as the burning area. A net was erected around the whole, when ships were burned down, to prevent the escape of any debris that might drift away during reduction. It is presumed that the square was cornered by pilings or stakes on which the nets were attached, although float nets may have also been employed. Eventually, a log boom was erected around the burning area [Beach to Moore, 10 June 1924, OCE]. The burning of hulls most certainly must have resulted in the first major deposition of miscellaneous debris upon the bay floor. Much of this debris still lies on and beneath the bottom.

At the outset of the work in Mallows Bay, it appears that vessels were removed from the Widewater Anchorage site individually or in small numbers to the new burning area for reduction. This process changed over time, and massed ship conflagrations, presumably preceded by mass groundings in the embayment, temporarily became the order of the day. The

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admission of 152 or more vessels into the shoals of the bay most certainly altered the marine environment. As all of the vessels were towed, and many dragged into extremely shoal waters, severe scarring of the bottom of the bay was a most certain byproduct. The densely packed ship hulls physically occupied perhaps as much as 85 percent of the bay, and crowded out life forms that had employed the area as habitats and for feeding and breeding. Debris collapsing from degenerating hulls covered the bottom and most surface areas. Because many heavy metals, byproducts of mining operations in Western Maryland, like elsewhere in the Potomac, carried downriver by the river's waters, had settled on the bottom only to be covered by later sediments but prior to the arrival of the fleet, the scarring actions undoubtedly served to repollute the river. Testimony by environmental scientists during Congressional hearings in 1970 suggested that even at that late date to remove the hulls from the embayment might cause stifling of the bottom and the heavy metals and other pollutants therein and further pollute the river.

The methodology employed by WM&SC for the removal of scrap metal in Transect 2 is problematical. However, evidence of alterations of the terrestrial landscape suggest that it was during this period that at least one small craft marine slipway was erected in the water and on the shoreline approximately midway between the northern and southern extremities of the grounding areas landward side. A yarding facility, believed to have been modeled after Northwest Pacific Coast logging yarding operations, may have been utilized to haul salvaged scrap metals delivered by boat at the slipway. The offloaded scrap may have been moved up a ravine by a yarding cable system, possibly powered by a steam donkey engine, to a road at the crest of the bluff, from where it could be carried away by truck or carts. The only modifications of the terrestrial landscape extant in the archaeological record and relevant to the activity is the log and earth slipways site, PS No. 101, and the triangular-shaped earthen mound believed to have served as a steam donkey engine site, which is a component of PS No. 126, the yarding complex. As verification of the yarding complex hypothesis must be further tested archaeologically, and the attribution of the site to the period of the WM&SC is still circumstantial, it is impossible to address it with certitude.

Among the more significant alterations to the marine landscape was the levee concept designed to prevent ships from drifting from the grounding area. Although begun during the WM&SC regime, this undertaking was never carried to completion, and was, in fact, resurrected from time to time by the Army Corps of Engineers during the wildcat period. As part of its arrangement with the War Department, WM&SC had agreed ca. 1931, and probably earlier, to erect a levee around the entire grounding area to prevent hulks from drifting away, but failed to undertake the action. In 1937, the War Department explored a plan to dredge at Mallows Bay and to employ the spoil to erect a dike over each of the westernmost hulls in the bay, thereby anchoring them securely in place thereby confining the greatest number of vessels on the interior. Moreover, the seven hulls off Brent's Marsh were to also be filled with spoil to prevent their movement. The project was to be carried out by the hydraulic dredge boats *Talcott* and *Dalecarla* and the clam dredge boat *Atlas* [Shomette 1994: 92]. A photograph of the *Ida S. Dow*, taken during this period, shows a barge laden with spoil alongside.

The filling of hulls with dredge spoil during the wildcat period was funded, but the actual record of operations has to date not been found. Examination of the extant shipwreck population, however, indicates that at least nine USSB hulls, PS Nos. 1, 16, 17, 18, 19, 20, 21, 23, and 24, contain as much as several feet of loamy soil within them. It is of some significance that all nine vessels, during the period 1952-1986, were also among the most mobile vessels in the inner bay, most of which either drifted or were towed onto the shore or parallel with it from their 1952 positions. They are also the primary "flowerpot" wrecks in the fleet, with their soils providing fertile foundations for plant growth and animal habitats. Several sites in Tier 6, along the western perimeter of the grounding area, also had concentrations of sand in them, but these may be merely the result of sedimentary fallout.

The last significant intentional landscape changes in the transect were carried out between 1952 and 1986. These changes were undertaken by the U.S. Army Corps of Engineers in an effort to control the drifting of hulks from the embayment. By 1970 it was reported in Congressional hearings that the hulks had been filled with gravel and that a line of pilings had been driven around the periphery of Mallows Bay. By 1981, the piling line had fallen into disrepair. The Corps of Engineers then developed new plans for removal of the hulls by dredging 11 channels into the

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embayment (122,000 cubic yards), cutting up the hulks in situ and hauling the debris away by barge. An alternate plan called for a new piling line, consisting of 270 pilings (15 feet on center), to be constructed around the perimeter of the bay. The first plan was dropped. The record concerning the second has not been found [Shomette 1994: 105-8]. However, a line of pilings along the southern border of the grounding area was in place by 1986, and constitutes the last known intentional alteration to the landscape in this sector.

Landscape Alterations in Transect 3

The most dramatic alterations of the terrestrial and marine landscape at Mallows Bay were undertaken during the Bethlehem Steel Corporation regime. Bethlehem entered into an agreement with the U.S. Government in late 1942 to remove an estimated 20,000 tons of metal believed to remain in the hulks. To undertake this effort, the company excavated a massive basin estimated to be 250 by 900 feet in size at the outlet of Marlow's Creek. The basin's south wall was constructed of earth and corrugated iron, and an entrance was built of concrete. The basin was to be used as an enclosure into which hulks could be brought and, after the gates were sealed and the water pumped out, burned down entirely. Sometime prior to 6 March 1943, a costly breakthrough of the protective walls of the basin occurred, handicapping reduction operations undertaken therein, possibly causing the company to redirect scrapping operations on at least one vessel, PS No. 107, to nearby Liverpool Cove.

To date, no plan of the Burning Basin has been located. Enlargements and computer enhancements of a 1943 aerial photograph, Figure 18, provides sufficient data to extrapolate some outlines of the site, as well as of the breach that was suffered. A U.S. Army Corps of Engineers plan of the approaches to the Burning Basin, drafted in 1944, indicates the extent of dredging that was undertaken by Bethlehem Steel to provide access to the basin from the Potomac, and from the grounding area, as well as landscape changes in and around Liverpool Cove.

The design of the Burning Basin itself, as indicated in Figure 2, was clearly rectangular in form. An earthen wall was erected around the basin with a bypass cut circumventing it to relieve the pressure from Marlow's Creek. This artificial outlet was provided for the creek by routing the waters through the bypass canal along the outside of the northwest wall, and then south along the southwest wall. The path of Marlow's Creek around the wall, as well as several breaches in the wall itself is clearly exhibited by contemporary aerial photographs. Five USSB are lying within the basin, and two barges can be seen outside the main entrance gate. The 1944 Army Engineers plan of the channel approaches indicate that entrance into the basin was through a movable gate. A pump house, presumably the facility employed to remove water from the basin when necessary, was situated on the berm wall on the west side of the gateway. Four buildings, identified as "Office" and "Tool Shed" lay on the eastern shore side of the gateway.

Over time, the basin, which had been dredged to an estimated depth of nine feet, slowly filled in with sediments. The remains of the bypass canal berm on the northwest side was still extant in 1952, and the integrity of the northeastern and southern walls was still intact. By 1986, however, the northwestern section of berm wall had eroded away, and erosion had created a substantial gap between the northeastern wall and a line of piling reinforcements which were held in place by timber stretchers. By 1998 the depth of the basin was less than five feet.

The latest modification of the visible landscape was instituted in the mid-1980s when the Mallows Bay Boat Club erected a wharf and other facilities on the southern shore of the basin. Some debris and vessel materials from the Bethlehem Steel period, such as the grounded wreck of a small floating dredge was removed, even as other derelict vessels began to accumulate in the basin. In 1995 a small marine railway for small boats was erected on the seaward side of PS No. 100. These facilities were removed following the acquisition of the southern littoral by State and Federal agencies.

The visible archaeological record of alterations of the terrestrial landscape undertaken during the Bethlehem Steel Corporation regime are primarily centered in Transect 3, which incorporates the entirety of the Burning Basin. The spatial unit of the basin itself is the largest single archaeological entity of the entire area. As a major intentional alteration of the marine environment, both excavated and constructed, it represents a maritime archaeological site of central importance to

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the overall history of Mallows Bay as it provided the means for conducting the greatest organized shipbreaking operation in American history prior to World War II, an industrial archaeological site of national importance. The basin itself was found to have suffered considerable degradation, both natural and man-made, since the end of the Bethlehem Steel Corporation period. Extensive filling of the basin by sediments has reduced the estimated wartime depth of approximately nine feet to between four and five feet. The remnants of the constructed basin wall exists in three sections. The northeast wall, PS. No. 100, which once separated the basin from the outlet of Marlow's Creek, was found to be an earthen berm backed by a solid line of pilings erected on the inside of the basin. These pilings, which form a line 246 feet in length, were reinforced by timber stretchers extending from the base of the piling wall into the berm. The remaining earthen berm, which measured 350 feet in length in 1994, lies on the north side of the pilings, and although once buttressed directly against them, is now eroding and separated from its braces by an ever-widening, water-filled gap. The sole remnant of the northwestern canal bypass wall, PS No. 118, is also eroding rapidly on its extremities and filling in its channel. As the narrow remnant of the canal that once existed silts up the site is also accreting toward the mainland slope. The third remnant of the basin wall is PS to. 132. This structure consists of an earthen berm wall, partially reinforced by corrugated iron sheeting. At the entrance, the channel depth is still nine feet, but is reduced almost instantly upon entry into the basin and exit into the channel leading to the Potomac. The gateway is 50 feet across, just wide enough to permit passage of the widest USSB hulk. Each side of the gateway entrance possesses a concrete lip, but provides no indication of a gate or portal assemblage. It is thus surmised the gate was closed off by a floating gate similar to those employed in floating drydocks. On its eastern extremity the reinforced concrete gateway, with one side based in the wall, and the opposite side on the mainland shore, is still extant. No evidence of the pumphouse that once stood on the berm was located.

Investigation of the basin documented a substantial number of derelict vessels, only a few of which may be of any significance. Fragments of USSB vessels, as well as marine debris fields were discovered, and the remnants of the basin canal bypass, gates, and berm walls were also examined. All were found to be in a disintegrating state of preservation.

Landscape Alterations in Transect 4

The approach plan to the Burning Basin indicates that several channels converged at or near the vicinity of the entrance to the basin. Four islands were erected from the spoils produced by the excavation of the Burning Basin and the channels. To excavate the basin area to a depth of nine feet, a depth assumed necessary to facilitate the transport of floating of hulls, it would have been necessary to remove an estimated 75,000 cubic yards of soil. No estimate is possible for the channel dredging (if it was, indeed, carried out during this period and not during the wildcat period).

Two islands were formed from dredge and excavation spoil at the entrance of Liverpool Cove. The larger of the two, designated No. 1, was approximately 820 feet long and 80 feet wide, and 3.04 feet in elevation above a mudflat. The smaller of the two, designated No. 2, was 150 feet long and 50 feet wide and average 1.82 feet in elevation in waters averaging a foot in depth. A third island, designated No. 3, was formed approximately 860 feet west of the Burning Basin gateway. This island was 200 feet in length and ranged from 20 to 50 feet in width. It averaged 2.76 feet in elevation, and stood in waters less than .50 feet in depth. Designated No. 4, the fourth island was formed around the southeastern border of the grounding area. The 1944 plan suggests that the Burning Basin's northwest bypass was also routed along the eastern side of island No. 4. This landmass, the largest of all, was 800 feet long and varied in width from but a few feet to 170 feet. Its average elevation was 13.71 feet, with a maximum elevation of 23.9 feet at its midpoint, and tapering down to 6.9 feet on its northern end and 4.6 feet on its southern end. It lay to the immediate west of a channel running into the grounding area cut to a maximum depth of 9.4 feet, but was itself situated on a shoal averaging 2.4 feet in depth. With a total visible area of coverage on the four islands, approximating 152,000 square feet, and the recorded average depths surrounding them having been computed, it is estimated that a total deposition of no less than 51,975 cubic yards of spoil would have been necessary to create them. [See Figure 3 and Maps 16 and 17]

By 1952, the two Liverpool Cove islands were covered by a substantial growth of vegetation, although on the larger

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of the two inroads were already being made by erosion on its western end and along its northeast shore. Island No. 3 had succumbed totally to erosion and was no longer extant. The fourth and largest island had begun closing with the mainland to the east, but the bypass channel was still open. Bights had formed at its northern and southern extremities, even as erosion began to level its western shore.

By 1986, all but island No. 4 had entirely eroded away. The surviving remnants had accreted to the mainland shore, and the eastern bypass channel had completely filled in. The western side had eroded to such a degree that two barges, apparently buried beneath the island during its formation ca. 1942-43, were being exposed. The northern bight had also eroded entirely, with but a vestigial outline suggesting its earlier existence. The southern bight had stabilized. By 1998, the island was almost entirely gone except for the southern bight and an elevated shore area covering the two barges.

Outside of the Burning Basin, in Transect 4, a substantial, eroded and reduced fragment of the southern and western section of island No. 4, created from dredge spoil, still remains. However, the bypass channel that passed along its east side has filled in and the landmass has become one with the mainland. The remaining three islands have entirely disappeared. The depth of water in Liverpool Cove has increased to five feet where islands Nos. 1 and 2 once stood. The main channel from the Potomac to the Burning Basin is six feet in depth (MLW) but barely ten feet in width. The remainder of the auxiliary channels are silted in entirely and could not be located.

Conclusion

The Mallows Bay study area, incorporating a section of the Potomac River formed by the waters within the Sandy Point-Liverpool Point-Widewater triangle, contain the largest known concentration historic shipwrecks and maritime shipbreaking facilities in one discrete locale in North America, and possibly the Western Hemisphere. The historical maritime and industrial archaeological resources discovered through archival and archaeological research to date therein are formidable indeed. On and near the Maryland shores of the river, they include at least 116 shipwrecks dating possibly from as early as the American Revolution through the 1970s, and even after, nine major disarticulated shipwreck component sites, two shipwreck debris fields, two historic wharf sites, a log and earth marine slipway, a cable system for removing scrap metal, the remnants of an industrial shipbreaking and burning basin (including gates, earthen berms and log walls), and two structure sites, all lying in the four main survey transects along the Charles County shoreline. On the opposite side of the river, off Brent's Marsh, near Widewater, Virginia, lay at ten more shipwrecks.

The most numerous segment of the shipwreck population are the wooden and composite steamships of the World War I era USSB Emergency Fleet, the largest such assemblage of steamships in the world. These wrecks represent a significant component of not only the 277 ships purchased by Western Marine & Salvage at government auction in 1922, but a major portion of the entire U.S. merchant marine built during the period 1917-1922. The USSB fleet includes a wide variety of typologically and historically significant vessels, such as the *North Bend*, the first wooden steamship built and certified in World War I. Moreover, the USSB shipwreck population contains seven of the eight principal wooden steamship design types built during World War I. Many were the Ferris class cargo ship, the principal ship design of the program. A few were experimental types, while some served as benchmarks of construction and technological achievement in the first major standardized templated shipbuilding program in America. At Brent's Marsh, in Transect 5, amidst seven sister steamers, lies the *Aberdeen*, a coal fired steamship built in a record breaking 17.5 days from keel laying to launch. The majority saw service in American waters, while some operated in European waters and the Pacific as well, albeit after World War I.

A total of 88 USSB wrecks (or 27.33 percent of the 322 wooden and composite steamships produced during the entire Emergency Fleet program) have been documented as extant among the entire wreck population in the Transect 1 through 4 study area, 68 of which can be identified by name, and three more by probable name. These 71 verified or probable named vessels represent the products of no less than 41 shipyards from 17 different states of the Union, and thus provide a superb cross section of maritime production and technological development during a single, pivotal point in American history. Indeed, the production of the USSB Emergency Fleet made the United States of

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America, for the first time in its history, the greatest shipbuilding nation in the world, with more ship tonnage constructed in a shorter period of time than had ever been produced before.

Of 218 vessels scheduled to have been brought into the Potomac River by Western Marine & Salvage Company for the purpose of shipbreaking and scrapping a total of 169 can be identified by name and verified as having actually been towed or sailed into the river. Of these, a total of seven named and three unnamed vessels are known to have been sunk off Widewater between 1922 and 1925, while 152 more were grounded at Mallows Bay prior to August, 1929, and two to five more at Sandy Point. Of the vessels grounded at Mallows Bay, two (*Battonville* and *Borad*), are noted as having been sent from the embayment to Philadelphia, Pennsylvania. The actual record, however, regarding their departure is yet undiscovered. The dispositions of an additional eight more vessels (*Chibiabos*, *Cresap*, *Dera*, *Fonduco*, *Mahaska*, *Makanda*, *Nashotah*, and *Waneyanda*) are unknown, although bond release records indicate that they too were brought to the Potomac River and undoubtedly burned to their waterlines during the WM&SC regime. Thus, the original USSB population left in the study area at the end of 1929 totaled 159 identified vessels with known dispositions, and eight more of unknown dispositions.

The shipbreaking and scrap operations carried out during the period 1922-1944/45 were among the most ambitious in American history, and the archaeological record that was left by these activities are abundant. These operations, and subsequent activities, may be divided into four discrete periods: (1) the WM&SC Period (1922-1932); (2) the "Wildcat" Period (1932- 1942); (3) the Bethlehem Steel Company Period (1942- 1945), and (4) the Post-War Period (1946-

1998). Each of these periods are typified by activities that provide an important sequence influencing the context, disposition, preservation, and typology of the extant shipwreck and industrial archaeological resource base within the study area.

The WM&SC Period

The WM&SC Period was an era of trial and error in the development of appropriate methodologies for shipbreaking on the Potomac and in America. This period was typified by maritime activities of an unparalleled scale in peacetime that required logistical and industrial applications never tried before. The movement of as many as 218 ships from the government anchorage at City Point and Clarendon, Virginia, on the James River, to a government designated anchorage on the Potomac River, off Widewater, Virginia, is largely undocumented, but was most certainly an undertaking requiring enormous organizational expertise. The first major component of the shipbreaking operation during the WM&SC regime was conducted during the period 1922-1925. The movement of ships from the designated Widewater Anchorage to Alexandria, Virginia, singly and in pairs, for the purpose of removing heavy machinery and other materials at the facilities of the defunct Virginia Shipbuilding Corporation, and then returning them to the anchorage was an effort requiring a well-lubricated organizational apparatus. By March 1925, all of the ships brought to the Potomac had been processed through the Alexandria shipyard, and all of their major metal components removed. The archaeological remains of the shipyard at which this enormous undertaking was carried out are still extant. The remnants of four giant concrete marine railways (the first such reinforced concrete marine facilities ever built in the world) and other structural features of the shipyard exist on both the land and in the water in the shadow of the Woodrow Wilson Bridge. These sites, lying in, on and adjacent to U.S. Department of the Interior land, have never been surveyed or fully documented.

The 1922-1932 WM&SC Period was marked by one major accidental multi-ship loss of vessels, several minor incidents, and at least three sequential organized regimes of intentional ship reduction. The various ship reduction phases were carried out by WM&SC to conform to federal guidelines for shipbreaking (on an unprecedented scale), accommodate bonding requirements, and to meet safety and navigational requirements under the oversight of the U.S. War Department. Protests by watermen against the scrapping operations also played a significant role in the evolution of subsequent wrecking and scrapping practices. These protests began even as the fleet was brought, in increments, to anchor off Widewater, and accelerated after the first major shipping loss caused by an accidental fire on 18 April 1923. This conflagration resulted in the burning and sinking of five vessels, *Okiya*, *Carawba*, *Quidnic*, *Gray Eagle*, and *Aberdeen* off Brent's Marsh. Later accidents would claim two more vessels, *Wasco* and *Blythedale*, both of which

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were eventually deposited amidst the first five wrecks, several of which were raised, burned again, and sunk once more. Three additional unidentified vessels would later come to rest there as well. Over the years reports of these sites have varied in numbers ranging from four ships to nearly a dozen. Aerial reconnaissance of the sector, however, indicates ten wrecks still extant in the shoals off Brent's Marsh, almost certainly the same as the only documented vessels on the site.

The first major intentional effort to reduce entire ship hulls by fire to salvage their metal fittings was conducted in the Brent's Marsh area by WM&SC with *Aberdeen* being raised and then employed as a test subject to establish reduction procedures. The ship was hauled close to shore in a shoal area off the marsh and burned down, then hauled even further in and burned again. Subsequent efforts to duplicate the test, when *Gray Eagle* and then *Blythedale* were raised and burned, proved less than successful. Eventually two more vessels, probably *Okiya*, and *Catawba* or *Quidnic*, were later raised and burned in further testing, with mixed success. The effort was soon abandoned, although the wrecks of *Aberdeen* and the other six ships lost in the Widewater Anchorage remained as an obstruction to navigation, and are today believed to be the only major multi-ship cluster of USSB wrecks outside of the Mallows Bay-Sandy Point reach of the Potomac. *Wasco*, and the unidentified vessel that escaped raising and burning, because they were not burned to the waterline when sunk, may yet contain substantially greater architecture than the hulls at Mallows or the five vessels known to have been reduced.

The second major effort to reduce ship hulls began in April 1924 when WM&SC purchased a 566-acre tract surrounding Mallows Bay, in which reduction operations could be conducted without hazard to fisheries operations or to navigation, and in relative seclusion. To facilitate these efforts, four great marine railways were erected at Sandy Point, where the vessels were hauled out, and burned near the beach in five to eight feet of water. Two wharves were planned for construction at Sandy Point to provide logistical assistance for transshipment of scrap removed from the hulls. However, only a single wharf was constructed, but was condemned by Army Engineers for failing to meet specifications and for being built without benefit of a federal permit. The Sandy Point shipbreaking effort proved as unproductive as the Brent's Marsh episode, as only five vessels were pulled out, burned, and covered by dredge spoil inland or adjacent to the shore by April 1925.

The archaeological footprint of the Sandy Point episode is evidenced by the extant remains of a wharf, believed to be the WM&SC structure (but possibly the remnants of the Civil War era Cooke's Landing wharf, and extensive fields of marine-related detritus pertaining to the brief shipbreaking period at the point. A possible buried 265-foot long ship section was located by hand-held metal detectors beneath the soils at the point but was not effectively recorded at the time of discovery and will require further investigation for positive identification. Nor could the remains of the marine railways and a road support system be determined by subsoil radar survey, although their locations are evidenced by aerial photographs. Neither site could be tested without permission from the landowners. A USSB vessel site, a disarticulated rudder and a large bulkhead located at Sandy Point, which are possibly associated with the hulk, probably arrived in their present locations between 1943 and 1952. It is also possible, however, the rudder and bulkhead may have drifted off another wreck, either in Mallows Bay or an undiscovered site off Sandy Point.

Two of the five wrecks reduced at Sandy Point may include the two composite USSB steamers *Botsford* and *Obak*, as both are indicated in the 11 August 1929 Army Engineers plan of the Mallows Bay grounding area as lying beached on the point. Both vessels are known to have served as temporary barracks ships for WM&SC employees. At least one of these vessels may have been extant and discernible as late as 1982 as a visible wreck is recorded on a NOAA navigational chart of that date in the same location as the 1929 position of *Botsford* and *Obak*. Neither wreck appears in aerial photographs for the period 1936 to 1988, and it is presumed that the 1982 wreck was only periodically visible, or are of a more recent deposition. If either is the case, the submerged hull may still be extant. The location of the second vessel is unknown, but may be among the numerous hulls that are known to have drifted about owing to storms, high tides, and so forth. The first vessels to be released from bond following the failed efforts at Brent's Marsh and the initiation of the Sandy Point effort were *Colona*, *Saris*, and *Wonhabe*, all of which were officially discharged from bond on 3 July 1925. However, as all three vessels appear elsewhere in Mallows Bay following this period, the identity of the three unknown

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vessels at Sandy Point cannot be determined.

The third major effort to reduce hulls by fire was centered in the designated grounding area of the Mallows Bay embayment itself. On 24 July 1925 WM&SC was granted permission to “ground, burn and beach in Mallow’s Bay, Potomac River, about two hundred hulls” [Steinbreaker v. Crouse, 456]. The hulks were to be placed in the designated grounding area, and filled with dredge spoil. An embankment of dredge spoil was then to be thrown up against their riverward sides and in the gaps between the hulls to prevent them from drifting off and forming navigational hazards. On 7 November 1925, a total of 31 ships, nearly 110,000 deadweight tons, were tied together in a line by steel cables, and burned at one time, becoming the greatest peacetime maritime conflagration in American history. The reduction process that followed, however, was far more gradual. By 1929, of perhaps as many as 200 vessels that may have been brought into the embayment, 152 remained, and were identified by name in the 11 August 1929 Army Engineers map.

Although the period of activity is unproved, it was likely that it was during the WM&SC Period that the great cable hauling system (site No. 126) and slipway (site No. 101) were erected to facilitate the removal of metals from the midway point of the Mallows Bay shoreline to a road system along a nearby bluff. The surficial physical archaeological evidence of the cable system consists primarily of cables, shackles and blocks, iron detritus, an earthen mound, and highlead and lowlead trees with cables still attached. The methodology of movement of iron from the small shoreline receiving point slipway, constructed of logs, to the upland road, seems clear enough. Adopting turn-of-the-century Pacific logging industry techniques for moving logs up steep grades, such as boom and heelboom loading, slackline systems, tight skyline and tyler systems, highlead logging, and skidder operations, salvors were able to haul many tons of iron from the water’s edge to wheeled transport vehicles on the ridge road, both efficiently and inexpensively. As later wildcat scrappers are known to have employed vessels to haul their goods to scrap markets in Washington, D.C. and Baltimore, or to have pooled their resources for such movements, and the Bethlehem Steel Corporation relied on the reduction of hulks in the Burning Basin, it seems probable that the Pacific logging system was installed and employed by WM&SC (a California based firm incorporated at Alexandria, Virginia).

By March 1931, as the Great Depression settled in, WM&SC abandoned the scrapping efforts at Mallows Bay, and sold its equipment. On 20 January 1932 the Army Engineers declared all work by WM&SC completed. In December 1932 WM&SC was officially dissolved as a corporate entity. Yet, the great majority of the 154 vessels identified in 1929 remained, with much of their superstructures and fittings salvaged for scrap, and the remainder of their hulls burned down to the waterline.

The “Wildcat” Period

For the next decade, from 1932 to 1942, the USSB shipwrecks of Mallows, abandoned by WM&SC, served as a magnet for wildcat scrap salvors. As many as 50 to 75 salvors were reported working the wrecks on any given day. They apparently employed every means of non-industrial removal, from simple hand tools to dynamite, for there is no record of large scale equipment, such as steam shovels, cranes, or other heavy gear being used. The names of a few vessels, such as *Congaree*, were reported in federal records as being worked at the time by the wildcat scrappers. Still, the hull of *Congaree* and others assailed by the wildcatters are still extant, and may provide some indication of the methodology employed by the freelancers that differed from that employed by WM&SC. The use of acetylene blow torches, as evidenced on one site (PS No. 85), to cut away fittings deeply embedded in ship timbers, is one example of probable techniques employed by the wildcatters.

During this period, and for the first time, the lightening of ships by the removal of tons of iron fittings, began to cause some grounded hulls to refloat and drift away. It is also during this period that barges, flats and other vessels are first recorded as operating in the embayment, and in moving salvaged scrap to Washington and Baltimore. In July 1932, it was reported that as many as a score of boats were in the embayment at one time loading scrap, and in Liverpool Creek a small bugeye was being outfitted specifically for scrap hauling. Many of these same boats and barges would themselves eventually be abandoned in Mallows Bay.

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In 1934 the four-masted schooner *Ida S. Dow*, an already damaged hulk, was towed from Hampton, Virginia, to the Potomac and employed as a barracks ship for scrap workers and, according to Tilp, used later as a floating brothel. [Fred Tilp, p.c. 1982]. The *Ida S. Dow*, the most prominent artifact of the Wildcat Period, was abandoned in 1936 and sank in place, although the hulk apparently migrated somewhat afterwards. By the end of the period, only a few vessels had entirely disappeared from the scene, as 144 USSB hulks were still in evidence in the embayment, along with six barge wrecks, and the hulk of *Ida S. Dow*. Yet, even if the several vessel which had floated away are included, it appears that the Wildcat Period accounted for the total destruction of fewer than half a dozen ships.

It is during this period that federal concerns were continually voiced that the Mallows Bay hulks might pose hazards to navigation, and the first major efforts to stabilize the hulks in place were initiated. This off-and-on effort continued well into the early 1980s and resulted in the building of levees, the burial of some wrecks beneath spoil materials, and in the erection of a barrier wall of pilings around the entire embayment. Archaeological evidence of these efforts are still to be seen in a number of earthen filled hulls which have become veritable "flower pot" wrecks, barges covered by dredge spoil, and the remnants of a circumferential piling line still in place at the southern end of the grounding area.

The Bethlehem Steel Corporation Period

With the onset of World War II, the remaining shipwrecks of Mallows Bay were estimated to contain enough iron and other strategic metals needed for the war effort to make further salvage efforts worthwhile. The Bethlehem Steel Corporation was contracted by the federal government to undertake the task. The company's efforts focused upon the excavation of a great earthen basin at the mouth of Marlow's Creek. Gates at the outlet of the creek and at the seaward entrance of the basin were erected to permit the opening and closing of the sector for admission of vessels, and to permit the basin to be pumped free of water as a necessary procedure for hull reductions. The ships contained therein were thus able to be burned down entirely and their metals removed more efficiently and inexpensively. The basin was to have been 900 feet in length and 250 wide and, when filled with water, capable of receiving 15 USSB vessels at one time. Photographic and archaeological evidence indicate that a canal, separated from the basin, was created around the northwest side of the site to relieve the hydraulic pressure from Marlow's Creek when the basin gates were closed. To facilitate egress to the basin, a complex of channels were excavated from the Potomac and through sections of the grounding area to permit the more efficient movement of hulls into the basin. The dredge spoil was employed to construct several small islands. These islands served the purpose of turning Liverpool Cove into a sheltered, shallow water anchorage, and providing an extended shoreline on the northern lip of the entrance to the Burning Basin that might be employed as an extended work area for reduction operations. The integrity of the Burning Basin was seriously assailed when the northwest canal wall was breached and the established ship reduction procedures hindered. When the process became unprofitable for Bethlehem Steel, and scrap metal was no longer necessary for the war effort, the company's activities in the area were terminated.

Bethlehem's operations proved effective in that at least 49 USSB vessels were completely removed from the Mallows Bay population. At least one additional vessel, the ex-USS *Nokomis*, was also brought in from Baltimore for scrapping. This vessel is believed to have been entirely reduced. Although most of the work was carried out in the Burning Basin, one vessel, and possibly more, were reduced in Liverpool Cove, as evidenced by the only composite hulk (site No. 107) discovered to date in this section of the study area. This hull was moved to its final resting place prior to October 1944, along with several smaller vessels that were apparently abandoned there as well. The hulk was disposed of near several buildings, designated "shed" and "shack" that may have been employed by Bethlehem Steel and which are no longer extant. A number of barges were also abandoned during or immediately following the company's brief presence in the area. Debris concentrations on the immediate shore suggests that reduction operations may have been conducted at this point rather than in the Burning Basin, where the ability to burn vessels down dry had been jeopardized by the breaching of the canal wall.

The Bethlehem Steel regime at Mallows Bay was a period of dynamic alterations of the terrestrial and sub-

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sea landscape, considerable evidence of which is still extant. In May 1943, the integrity of the basin operation was seriously compromised, as already noted, when a breakthrough in one of the earthen berm walls occurred. By January 1945 Bethlehem Steel had already ceased operations at Mallows Bay. Yet, a substantial segment of the basin remains today much as it appeared in World War II, albeit filled with sediments and no more than five feet in depth throughout. The vestigial remnants of the canal berm and log walls at the outlet of Marlow's Creek (PS No. 100), the concrete and corrugated steel gates (PS No. 132), a segment of the northwest canal berm wall (PS No. 118) and at least one structure extant in 1944, are still much in evidence and form a significant component of the archaeological record of the site. Fragmentary sections of USSB vessels that were reduced within the basin (PS Nos. 71 and 73) are found at several locales therein. Although the auxiliary channels leading from the main grounding area have also largely filled with silt and muds, the main channel cut from the river to the basin entrance is still extant and privately maintained to provide egress to a private boat club and a small commercial fisheries operation which are based within the basin.

The Post-War Period

The period following World War II was marked by substantial alterations in the terrestrial landscape, the migration or intentional movement of numerous USSB hulks in and about the embayment, and the utilization of the grounding area and Burning Basin as dumping grounds for numerous abandoned vessels of many types and periods. At least one hulk that had migrated from the main grounding area was eventually towed to Sandy Point and abandoned sometime between 1943 and 1952, and remains there to the present (PS No. 74). Two more unidentifieds (PS Nos. 38 and 80) drifted from the embayment and were returned to locales in the southwest frontier but outside of the grounding area. Efforts to prevent movement may be found at several sites, such as PS Nos. 16, 18, 38, and 74, which are attached to the shore or other vessels by steel cables. Many of the USSB hulks, filled with sediments to prevent movement, rapidly evolved into "flower pot" wrecks, with their own unique and developing mini-ecosystems. The surficially exposed areas of nine USSB vessels in Mallows Bay that had been hauled up on or near the shore (PS Nos. 1, 16, 17, 18, 19, 20, 21, 23, and 24), and to a lesser extent as many as a score of vessels in other sectors of the embayment, were covered by lush vegetation. Through accretion, the unidentified hulk at Sandy Point was partially covered by soils from the shoreline and detritus from the river. Although by an enactment of the U.S. Congress [Section 116, River and Harbors Act of 1968] the hulks were to have been moved from Mallows Bay, environmental considerations, political scandal, and funding problems prohibited the removal program.

In 1970, during hearings in Congress, the USSB population on the Potomac was reported at 99 vessels in Mallows Bay, one at Sandy Point, and ten near Widewater. No address was made to the vessel opposite Maryland Point, or at old Chatterton's Landing. A disparity between the U.S. Army Corps of Engineers' estimate of 99 vessels for the 1970 USSB population in Mallows Bay and the 88 wooden vessels and one composite documented during the 1986-1994 Mallows Bay survey may be accounted for in only two ways. As no vessels were scrapped after the Bethlehem Steel Corporation regime, the vessels either drifted off or sank in place. Comparison of dispositions of Mallows Bay for the periods 1943 to 1998 indicate that a number of vessels appear to have been locked in by surrounding hulks and would have been unable to be towed out during salvage work by Bethlehem Steel, or floated free from the grounding area on their own owing to natural causes. Although it is conceivable that they may have been entirely reduced in place, it is not likely given the methodology employed by Bethlehem Steel. It is thus possible that these hulks have settled so deeply into the bottom that they are no longer discernible from the surface, or by non-intrusive investigation. Five of these vessels are determined to be WD Nos. 23 (*Bonfay*), 25 (*Neeolah*), 67 (*Fort Stevens*), 72 (*Astoria*), and 95 (*Boynton*). The remaining vessels may also include WD Nos. 19 (*Saris*), 20 (*Colona*), 51 (*Laforge*), 52 (*Conewago*), 54 (*Bushong*), 56 (*Bushrod*), 57 (*Boilston*), 59 (*Wonahbe*), and 69 (*Fort Riley*). Although none of the latter could have been moved from the area, three of these are undoubtedly the same as several hulks (PS Nos. 54, 56, and 57) that are still visible wrecks in the same sector but are as yet unidentified.

Of the 88 USSB hulks in the four transect study area (one at Sandy Point, 86 in Mallows Bay, and one in

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Liverpool Cove), the verified vessel typologies included Ferris (52), Hough (10), McClelland (1), Peninsula (3), Pacific American (2), Supple-Baffin (2) and Grays Harbor (1): the remainder are of uncertain typology.

Fifty-eight of the named vessels were determined to be single screw ships and 13 were twin screw ships. Of the 17 unidentified USSB vessels, five were single screw ships, one a double screw vessel, and the 11 could not be determined.

All but one of the ship remains are entirely of wooden construction, and fitted with iron and galvanized fittings. A few contain bronze fittings such as shoes and gudgeons. The exception (PS No. 107) is a composite vessel.

A total of 56 ships (63.64 percent of the population) were examined for bulkhead remains. Of the 49 identified vessels examined for bulkheads, 7 had none remaining, nine had one, 15 had two, 8 had three, 9 had four, and 1 had five. Of the seven unidentified vessels examined, 1 had none, 2 had two, 2 had three, 1 had four, and 1 had either three or four bulkheads. Seven sites still contained their registered total of bulkheads: PS Nos. 9 (*Boone*), 27 (*Belgrade*), 30 (*Caribou*), 32 (*Aowa*), 33 (*Quapaw*), 34 (*Quemakoning*), 41 (*Buckhorn*), and 93 (*Kickapoo*). A total of 34 sites either contained no remnant of bulkheads or could not be verified. A single disarticulated centerline bulkhead (PS No. 103), possibly a component of PS No. 74, lay on the shores at Sandy Point. Additional bulkhead fragments were noted as detritus in PS No. 8.

Measurements of ship lengths were taken on 29 USSB wrecks (15 Ferris, four Hough, one Supple and Ballin, one McClelland, and eight undetermined types), but beam measurements were only acquired on 24 of these. The difference in given registered measures between perpendiculars as registered between 1918 and 1922 and those taken between extant extremities of vessels between the perpendicular at the bow and the extant stern remains varied markedly owing to the fact that survey measures were taken at the waterline and not between perpendiculars on the main deck. The standard Ferris hull length (267.3 feet) varied between nine and eleven feet shorter than the designated length. Most Hough types ranged from five to seven feet shorter. One Hough type ship, however, PS No. 129 (*Kasota*), exceeded the registered measure by one foot, an expansion of length that is undoubtedly due to the slow outward collapse of the ship's structure. One wreck (PS No. 19) believed to be *Dertona*, but not positively identified, a Supple and Ballin type hull, was nearly sixteen feet shorter, and more than two feet narrower abeam than the registered dimensions. The sole McClelland type hull (PS no. 34) was nearly nine feet shorter. As no original measure is known on the eight unidentified vessels (including the composite hull PS No. 107) upon which measures were taken, comparison between the extant waterline size and the as-measured dimensions between perpendiculars was not possible.

Recordation of the length of one unidentified vessel, PS No. 38, indicated an extant length of 284 feet and estimated beam of 45 feet. Only six vessels of the 1929 listing equaled or exceeded these dimensions: *Bushong*, *Bushrod*, *Calala*, *Dertona*, *Grayling* and *Horado*. *Grayling* and *Horado* are believed to have been totally destroyed during the Bethlehem Steel Period, and the extant wreck of *Calala* has been verified as elsewhere in the embayment. An additional site, believed to be the wreck of *Dertona*, has not been positively verified. As adequate exit areas for either *Bushong*, *Bushrod*, or *Dertona* were not extant and it is improbable that neither of the hulls moved far from their locales, they must be removed as contenders. PS No. 38, undoubtedly one of the unidentified hulls introduced to the embayment after 1929, was among the many drifters from the bay, and was deposited in its current location after 1952.

Eighty-two vessels (93 percent of the population) were examined for fastenings. All of these were fitted with iron. Three of these, PS No. 40 (*Panga*), PS No. 41 (*Buckhorn*), and an unidentified ship (PS No. 74), were also fitted with wooden treenails. Both *Panga* and *Buckhorn* were Ferris type vessels, and the third is a single screw vessel typical of length, beam and contour of a Ferris type, albeit not yet verified as such.

During the USSB Emergency Fleet shipbuilding program, various types of steel reinforcing was employed. The use of steel strapping in wooden steamship construction was among the many innovations of the Emergency Fleet program, and with justifiable cause. In all vessels built of wood, there is a continual tendency for the longitudinal members of structure to alter their shape and, especially in large vessels, no amount of additional wood material is capable of resisting this tendency to alter longitudinal shape as efficiently as steel straps will. It therefore became a component of the shipbuilding

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program to insert diagonal straps outside the frames of the steamers. In the larger vessels these were supplemented by steel arch straps fastened inside or outside the frames. Section 29, Lloyd's Rules (1918), specified that proportion of breadth to length and depth to breadth must regulate the number of straps, that tonnage must regulate the dimensions of straps, that lower ends of straps must reach to, at least, halfway between long floor heads and first futtocks and upper ends to upper tiers of beams. All straps were required to be flush with the outside edge of frames by removing a proper depth and width of wood from each frame where strap crosses. Once the steel straps were let into the frames and fastened to the works, the process of planking the hull could begin.

In many cases, the reinforcing wooden ships consisted of simple deck straps, with steel lined hatch combings. However, the design work of Theodore E. Ferris for the standard wooden vessels of the Emergency Fleet Corporation provided for the system of diagonal steel strapping adopted for almost all wooden ships of the period. The Ferris strapping was to be $\frac{3}{4}$ X 4-inches in cross section and extended around and under the bilge. They were to be riveted at the top to a $\frac{3}{4}$ X 8-inch steel chord, or band. The straps were arranged in the form of a diagonal lattice and were riveted where they cross. They were lined up to sheet the top band (or chord) at every other frame space and were fastened to the frame timbers by 8-inch bolts. Two other forms of steel strapping were in general use on the Pacific Coast. One style, designed by M.R. Ward, general manager of the Grays Harbor Ship Building Company, of Aberdeen, Washington, consisted of two arches of $\frac{3}{4}$ X 14-inch universal plates let into the sides of the frames and securely bolted in place. The second type, designed by Fred A. Ballin, of the firm of Supple and Ballin, of Portland, Oregon, involved the construction of a steel bulwark or topside over the upper ends of the frame timbers. The steel topside construction was riveted to a deck stringer plate of suitable dimensions [Estep 1918: 26].

A total of 43 vessels (48.87 percent of the population) were examined for strapping, 34 of which were identified by name and nine were unidentified. Two types of strapping were noted, iron cross strapping, and band strapping. Thirty-eight of the study group were fitted with cross straps, three among this same number were also fitted with band straps. Five vessels provided no sign of strapping. Among the identified vessels, cross strapping was noted on Ferris, Hough, Peninsula and McClelland type vessels, and on several unidentified ships. Band (or chord) strapping appeared on only the Ferris and Hough type vessels, and also on one unidentified vessel.

The strapping evident in the sample population indicates that only the Ferris design straps are extant. No examples of either the Ward or Ballin designs were found on any vessels investigated, including Grays Harbor or Supple and Ballin type ships. The Ferris type strapping, both cross and band (or chord) conform in size and usage to the plans of the designer. The absence of band strapping, which was normally employed as a component on most USSB wooden hulls, is undoubtedly a consequence of position. Band strapping served as an anchor line for cross straps, usually at a midway point on the hull wall, and at the cap of the wall. As most vessels were burned down to the waterline, leaving between six and nine feet of the lower hull extant, the support areas for band straps was removed, and most of the metal was undoubtedly removed by scrappers.

Among the most unique and unexpected features employed in the construction of many of the USSB vessels was concrete. The utilization of concrete in the structural fabric of many vessels has not, to date, been found documented in the archival record, although its evidence in the archaeological record is substantial. A total of 39 vessels (32 named and seven unnamed) were inventoried to ascertain the presence or absence of poured and formed concrete in the bow and stem areas. In 21 ships of the study group, concrete frames, platforms, or other structures were observed in the bow. Bow concrete was most prominent in Ferris type vessels, although it was also noted in both Supple and Ballin and McClelland types. These features varied dramatically in size, shape, and density. In some cases, the forepeak bulkhead area was filled with tons of concrete. Thirteen ships featured frames or blocks in their stern areas, primarily on the sides of shaft tunnels. These varied in size from a foot in height to six feet or more. Although sparsely represented, concrete platforms in the bow or forepeaks of several vessels may well have been the results of efforts to weigh down hold ships in place to prevent them from drifting free, although no such efforts are mentioned in federal documents. Interestingly, no vessel site indicated the presence of concrete structural features amidships, although piles of bricks were

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noted on several sites. The use of concrete in other vessels, as components of architecture built into the very fabric of their structures, however, is without question. The relationship of various forms of concrete structures as being a representative traits of specific vessel typologies is uncertain but possible.

The utility of concrete structures in the USSB vessels of Mallows Bay has been variously justified as stiffeners, and as supports for deck guns on the forepeak and afterpeak areas, or as collision frames. One naval architect has noted that it was not uncommon to pour concrete in the bilges and between the floors (lower frame sections across the keel) to prevent bilge water from lying about in these recesses and to make a smooth limber track for bilge water to drain to a sump pump [Thomas Gilmer, p.c. 1992] This, unfortunately, does not explain the frame-like projections, and, indeed, the incorporation of concrete as actual frames, and the absence of concrete in bilge areas and lower sections across the keel. The use of concrete as frames may well have been an economy in construction or used as a substitute for wood or steel, which were often in short supply during World War I. It is possible that concrete may have been employed by contractors to provide trim, thus accounting for the variations of size, shape, and disposition from vessel to vessel. Some vessels would have required none, while others needed exceptionally large weights to correct trim problems. Yet, many concrete features appeared to be architectural components, often similar in design and location, albeit of variable of sizes, rather than corrective add-ons. The matrix of concrete often varied from vessel to vessel, with some having been produced from sand and small pebbles, while large gravels were used in others. This might indicate that the concrete was not produced to any specific guidelines, but was determined by individual ship constructors on a case-by-case basis.

A review of 67 ships of the fleet (76.14 percent of the population) indicated that the stem was still extant at the bow in 65 vessels. The shape of the stem was usually obtained from mould lofts. By using templates and bevels made in the mould loft, the various pieces of material could be properly shaped, beveled and partially finished at the sawmill. The stems of the USSB fleet ships in Mallows Bay, and as best exemplified by the stem on PS No. 74, appear to have been composed of several pieces of material fastened together with through bolts. With the stem assembled and rabbeted to receive planking, it was positioned, plumbed and properly fastened. The through timber fastenings, utilizing holes drilled by air-operated machines specifically developed for the purpose during the Emergency Fleet program, have been noted only as of galvanized metal. However, PS No. 74 clearly revealed that wooden fastenings, dowels or treenails, were also employed. The use of wooden fastenings may have been an indirect result of the use of air-operated augers in drilling fastening holes. Desmond [1919: 91] notes that "when air-machine augers are used the high speed of rotation, combined with the difficulty of [the] holding drilling machine perfectly steady and the necessity of withdrawing [the] auger a number of times while boring a hole for a fastening, usually causes the auger to bore an oblong hole that is materially larger than the auger." The consequence of this was loosely fitted fastenings when metal was used. "A fastening," said Desmond, "that will drive easily into its hole is worthless and aside from its insecurity is liable to leak." Wooden fastenings, however, when inserted and swollen, compensated for the oversized bore hole and provided a watertight fit.

Of 52 ships inventoried for sternposts, all possessed them. However, of 52 vessels counted for rudder posts, only 19 still retained them as architectural features. Of 51 vessels surveyed for rudder remains, only five vessels still retained partial or even vestigial remnants. Of 47 vessels examined for gudgeon and pintal remains, only 11 were extant. The lower rates of survival of rudder posts, rudders, and gudgeons and pintals is probably attributable to early removal of rudders (and the necessary destruction of the rudder post in the process) as a means of accessing easily removed scrap iron and access to the propeller. The rudder strapping, pins, gudgeons and pintals would have been among the most handily removable structural components of the hulks, hence the most profitable. Of the extant rudders directly attached to vessel sites, none are more than fragmentary in nature. Two large but disarticulated rudder fragments were also encountered: one onboard a hulk in Transect 2, and another (PS No. 102) possibly associated with PS No. 74, on the shore in Transect 1. No propellers have been found.

A number of sites, such as PS No. 19, reveal evidence of fire trauma. As most or all of the USSB vessels were reduced to their waterlines by burning, this is not in itself unique. Fire damage has, in fact, provided on some sites an interesting "cutaway" view of features that would not have otherwise been evident to the investigation. The badly

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burned hull of PS No. 19, which still stands at least six feet above the water, revealed a herringbone pattern of double cross planking and the best preserved concrete bow framing with wooden sister frames in the entire fleet, and one of the best preserved cross sections of a hull discovered in Mallows Bay. On other sites, the probable use of dynamite is suggested by large gaps in the hulls, usually at or near the stern. The employment of acetylene torches to remove a gudgeon, as evidenced by the wood burns around the gudgeon site area in PS No. 85 is indicative of smaller scale efforts at scrap removal.

The many regimes of shipbreaking and scrapping, as well as acts of nature, have left clusters of vessel parts scattered about the study area. The operations of scrap salvors at Sandy Point, PS. Nos. 101 and 126, and in and around the Burning Basin are reflected in the archaeological record still extant. The origin of one cluster site, PS No. 8, is problematic. The location of the site was once occupied by the grounded bow of a USSB vessel and was later the site of a shoreline created from dredge spoil by Bethlehem Steel. It is possible the cluster of ship parts was once on the shore, and with the ongoing erosion of the shore, gradually sank in place. It is also possible that the site predated the development of the artificial shore and was later covered by it, and is only recently becoming exposed again.

Barges and Other Watercraft

Although no comprehensive archaeological survey of barge wrecks in the Mallows Bay study area was carried out, enough data was assembled to suggest that they were quite similar to at least two scow barges excavated at Battery Cove, Alexandria, Virginia, in 1989, and are of a vessel typology that has been documented as early as 600 B.C. in Lincolnshire, England [Johnstone 1980: 159, 160]. In Zwammerdam, Netherlands, flat-bottomed, square ended barges dating from the second century A.D. have also been excavated. The first mention of such vessels in America appear ca. 1670 [Chapelle 1951: 151].

In the United States, scows, variously described as flats, gondolows, radeaux, lighters, but most commonly as barges, have served in a variety of employments. Although the term barge, during the colonial period and early 19th century, usually referred to a ship's boat, by the era of steam power, it began to be associated with the flat-bottomed, square ended vessels commonly addressed in the modern era by that name. Terrell [1990: 9] noted that barges may be divided into two classifications: (1) scow barges used as ferries, workboats, and in the fishing industry; and (2) as bulk carriers. They were propelled manually, towed or pushed by tugs, or fitted for sails. During the colonial period, the term "flat" was usually applied to scows. These vessels were generally propelled by push poles or oars, and carried goods between warehouses and shipping lying in rivers and sounds, or for work on inland canals. In southern states such as South Carolina and Georgia they were referred to as "box boats" or "cotton boxes" [Fleetwood 1982: 87]. The stable scow hull design also made the craft type suitable for employment as ferries, usually between narrow points on rivers and streams, where they were propelled by oars, poles, or pulled by ropes and cables [Perry 1957].

With the arrival of steam power, the scow found new employment, and was generally referred to as the scow barge, or simply barge. The square hulled, flat-bottomed barge became a bulk carrier that augmented the carrying capacity of the steam vessel. Rafted together, or tied end to end on a cable, many barges could be moved at one time by a single steam vessel. With their flat-bottomed stability, they were also quite suitable to serve as platforms for pile drivers and were often used as stages to drive pound stakes for fish traps, and for myriad other forms of waterborne industry. Today, barges are usually associated with the movement of bulk materials such as coal, wood, rock, sand, scrap metal, lumber, cordwood, bricks, railroad ties, or dredge spoil, items that are not spoiled or damaged by exposure. In the 19th century, they were also used on the Potomac River to haul garbage [Terrell 1990: 11; Up 1982: 34; Tilp 1978: 65].

The earliest evidence of the employment of barges in wrecking operation at Mallows Bay is a photograph of one such vessel on the port side *Ida S. Dow* ca. 1936. However, barges were most certainly employed early on by WM&SC, and were definitely fielded by the Bethlehem Steel Corporation during World War II. A total of 12 wooden barge wrecks in Transects 1,2 and 3, of varying dimensions, provide mute testimony to the utility of these craft types during the salvage work in the study area. These vessels (PS Nos. 2, 3, 6, 7, 22, 25, 43, 48, 78, 104, 110, and 130) were abandoned in the

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study area within a very short period (ca. 1936-1943) and are undoubtedly the largest assemblage of barge wrecks on the Potomac abandoned during a discrete time period. It is possible that some may have been employed in fisheries operations for driving pound net pilings, or were simply abandoned in the remote study area after having outlived their usefulness in other parts, although their appearances only during the shipbreaking and scrap salvage era (1925-1945) at Mallows Bay is undoubtedly not coincidental.

Albeit with few notable exceptions, such as Terrell (1988, 1990), Watts (1986), and Lawrence (1990), few efforts have been made to document domestic scow and barge architecture from the archaeological record, and almost no address has been given to such vessels of the early 20th century. This may perhaps be the unintentional bias in the professional archaeological community towards such simple, mundane working class vessels. However, the barges of Mallows Bay provide a large and varied population from a quite short period in time, in a local environment that is both convenient and accessible for study. They offer a superb opportunity for a comprehensive analysis of a vessel type and period that is neither well known or documented.

Another vessel/structure type encountered was a possible Potomac River Ark (PS No. 50). The Potomac Ark is essentially a houseboat on a scow barge hull. These vessels were usually 24 feet in length, 10 feet abeam, with a 12-foot draft. When floating free, the owner was able to avoid paying property taxes. Such vessels often served as ship chandleries and stores, and provided myriad service for maritime industries on the river, particularly around Alexandria and Georgetown. Gamblers, bootleggers, and prostitutes are also known to have employed Potomac Arks at least from the Civil War era until well after World War II [Tilp 1982: 56; Tilp 1978: 308]. The last known use of floating houseboats or barges for the purpose of prostitution occurred at the Washington Marina, near the Pentagon, in the mid-1960s.

PS No. 50, which appears in Transect 4 sometime after 1952, possesses many similarities in design to the Potomac Ark, although it was, when discovered, mounted on small pilings and maintained as a fixed facility. Unfortunately, there is little that can be said to either verify or deny the identity of the site as such a vessel since the utility of the Ark type was multifaceted. Because such vessels served many purposes, and were generic to houseboats and other barge-like dormitory or barracks vessels, and because the site does not appear at Mallows Bay until after 1952, no definitive statement may be made regarding the site's service. That it was employed as a domicile, either recreational or otherwise, is certain, primarily from its architecture. With living room replete with fireplace, multiple bedrooms (with built in bunk beds), a shower and toilet, and galley, it was most certainly intended for domestic use rather than as a store, chandlery, or other business related activities. That it was later abandoned and then used as a convenient equipment storage site for watermen is also certain, as evidenced by the miscellaneous marine gear, nets, crab pots, floats, anchors, and line. The site has unfortunately fallen victim to the Maryland Department of Natural resources Wreck Removal Program, and exists as a disarticulated debris pile.

Small commercial fishing and freight hauling vessels, as well as possible recreational vessels, constituted a unique and important component of the shipwreck population of the primary study area. These vessel sites, ranging from probable mid-19th century log canoes and plank-on-frame schooners to the last of the American four-masted schooners and motorized seagoing menhaden fishing ships, represent a superb cross section of regional and national maritime traditions, architecture, and industry perhaps unequaled in any other locale in such a confined and accessible area. The possibility of one of the non-USSB wrecks being an 18th century longboat belonging to the Virginia State Navy, and sunk during the American Revolution, is of singular significance. The presence of a steel-hulled, seagoing ship that served on the high seas as a freighter, and finally as a car ferry on Chesapeake Bay (one of the last to be made obsolete by the interstate highway system), completes the extensive array of vessel types in the Mallows Bay - Widewater population. Several of the more fragile sites were subjected to a non-intrusive survey during the course of the project, while many more await documentation. From the array of non-USSB vessels encountered or discovered through the limited investigative efforts carried out during the project, and the numerous vessel debris fields identified in Transects 3 and 4, it is likely that additional small craft wrecksites remain yet undiscovered.

Each of the non-USSB wrecks identified during the survey represent both indigenous and imported vessel

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types, widely varied in architecture, design, and purpose. Each has a place in the matrix of regional maritime history too broad, and as yet too little understood, to address within the confines of this document: all but one are wooden vessels. Each of five of the wooden vessel sites represents less than 10 percent of their original structure. Three wooden vessel sites, all of 20th century construction, retain some vestige of structural integrity, but are rapidly degenerating. All three are of questionable origins, age, importance, and of uncertain significance by National Register criteria. One vessel site, *Mermentau*, was largely reduced during the course of the survey to less than an estimated five percent of its original structure by the Maryland Derelict Boat Removal program only two years before it would have been eligible for nomination to the National Register and is representative of governmental threats to significant sites. The site was determined to be ineligible for nomination by the Maryland Historical Trust prior to permitting the reduction of the site by DNR.

The steel-hulled car ferry *Accomac*, site No. 35, already substantially reduced to the car deck by scrapping operations, is a fragile site that is gradually succumbing to the elements. The site contains a wide array of equipage suitable for recovery and museum interpretation, but also some hazardous materials. Many places on and within the ship are still accessible, but not without some danger to the casual visitor. Asbestos-lined pipes are present in several locations on the ship, and the metal hull, floors, bulkheads and stanchions supporting the superstructure have become corroded and constitute a hazard to any individuals unfamiliar with the site. As a historic ship site, however, No. 35 is significant. Only two car ferry hulls that served on Chesapeake Bay are still extant: *Accomac*, which served as the Kiptopeke ferry, and the Choptank ferry, the latter of which is ashore at Highlys Beach, opposite Cambridge, Maryland, serving as an antique emporium.

References Cited

- Allard, Dean. "The Potomac Navy of 1776," in *The Virginia Magazine of History and Biography*, Vol. 84, No. 4 (October 1976).
- Beitzell, Edwin W. *Life on the Potomac River* (Abell, Maryland: 1979).
- Robert H. Burgess. *This Was Chesapeake Bay* (Cambridge, Maryland: 1963).
- Burgess, Robert H., and H. Graham Wood. *Steamboats Out of Baltimore* (Cambridge, Maryland: 1968).
- Chicago Tribune* (Chicago, Ill.).
- DeZafra, Carlos. "Revival of Wooden Shipbuilding as a War Industry," in *Transactions of the Society of Naval Architects and Marine Engineers*, Vol. XXVI, 1918.
- Dictionary of American Fighting Ships*, Vol. V, (Washington, D.C.; 1970).
- Donnelly, William T. "Problems of the Wooden Cargo Ship: Description and Calculations of 5,500 Deadweight Carrying Capacity Cargo Vessel," in *International Marine Engineering*, May 1917.
- Donnelly, William T. "Wooden Ships and the Submarine Menace," in *International Marine Engineering*, June 1917.
- "Estimate and Actual Performance," in *Shipbuilders Bulletin*, Vol. 1, No. 5 (April 10, 1919).
- Evening Star* (Washington, D.C.).
- Ferris, Theodore E. "Standard Wooden Steamships for United States Shipping Board Emergency Fleet" in *International Marine Engineering*, July 1917.
- Ferris, Theodore E. *Yellow Pine Ship: Specifications for the Construction of a Standard Wood Steamship, Hull Only, for the United States Shipping Board Emergency Fleet Corporation* (Washington: 1917).
- Fleet, Henry. "A Brief Journal of a Voyage made in the Bark Warwick to Virginia and other parts of America," Manuscript Division, Library of Congress, Washington, D.C.
- George Goethals Papers, Library of Congress, Washington, D.C.
- "Harry Steinbraker v. Lorenzo D. Crouse," No. 46, October Term, 1935, Charles County Court, La Plata, Md.
- Hermann, Augustine Hermann, *Virginia and Maryland, 1670 [1673]*, Geographic and Map Division, Library of Congress,

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National Park Service

National Register of Historic Places
Continuation Sheet

Mallows Bay – Widewater Histal and Archaeological District
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Section 9 Page 28

- Washington, D.C.,
“Hough Type Wooden Steamship,” in *International Marine Engineering*, September 1917.
Hoxton, Walter. *Mapp of the Bay of Chesapeak with the Rivers Potomack, Potapsco, North East, and part of Chester*, 1735, Maryland Historical Society, Baltimore.
Hurley, Edward Nash. *The Bridge to France* (Philadelphia: 1927).
In the Anacostia Watershed, Vol. VI, No. 1 (Winter 1993)
Jones, Carleton. “Mining a New Treasure Trove of Civil War Relics,” in *The Sun Magazine*, January 27, 1980.
Liber WHA 56, Folio 306, Charles County Court, La Plata, Md.
Liber 73, Folio 537, 538, Charles County Court, La Plata, Md.
Liber 77, Folio 463, December 31, 1942, Charles County Court, La Plata, Md.
Lippson, Alice J., Michael S. Haire, A. Frederick Holland, Fred Jacobs, Jorgen Jemsen, R. Lynn Moran-Johnson, Tibor T. Polgar, William A. Richkus, *Environmental Atlas of the Potomac Estuary* (Baltimore: 1978).
Lucas, Jr., Fielding. *Geographical, Statistical, and Historical Map of Maryland*, 1822 [1823].
Lyman, John. “Wooden Freighters of World War I,” in *The Marine Digest*, December 29, 1945.
Maryland Gazette, Annapolis, Md.
Massman, William H. “A Potomac River Shad Fishery, 1814-1824,” (photocopy), Calvert Marine Museum Library Collection, Solomons, Md.
Morris, Paul C. *American Sailing Coasters of the North Atlantic* (Chardon, Ohio: 1973).
Narratives of Early Maryland, 1633-1684, Clayton C. Hall, ed. (New York: 1910).
Naval Documents of the American Revolution, Vol. 5, William James Morgan, ed., (Washington: 1970)
Netherton, Nan, Donald Sweig, Janice Artemal, Patricia Hicldin, Patrick Reed, *Fairfax County, Virginia: A History* (Fairfax, Virginia: 1978).
New York Times (New York, N.Y.).
“Our Unexampld Ship-building Activities,” in *The Literary Digest*, Vol. LIII (August 12, 1916).
Papenfuse, Edward C., and Joseph M. Coale, III, *The Hammond Harwood House Atlas of Historical Maps of Maryland, 1608-1908* (Baltimore and London: 1982)
Port Tobacco Times and Charles County Advertiser, Port Tobacco, Md.
Potomac River at Mallows Bay Survey of Grounding Area August 11, 1929, U.S. Army Corps of Engineers file copy, Baltimore District, Archives, Baltimore, Md.
Record Group 32, U.S. Shipping Board Emergency Fleet Corporation, Alphabetical List of All Types That Are Now or Have Ever Been Under the Ownership or Control of the United States Shipping Board, Washington, 1924, National Archives and Record Service.
Record Group 32, U.S. Shipping Board General File, 605-1-921, National Archives and Record Service.
Record Group 77, Office of Chief of Engineers, Civil Works, Record of the Chief of Engineers, Record Group 77, 1923-1942, Potomac River, (7245-7249) Serials 81-140, Box 1401, Folder 7175, Part I, Rivers and Harbor File, National Archives and Record Service.
Record Group 179, File 179, Box 916, War Production Board, Salvage Program, July-December 1942, Military Reference Branch, National Archives and Record Service.
Record Group 234, Minutes of the Metals Reserve Company, 1940-1945, Vol. 14, 357-59, October 21, 1942, Records of the Reconstruction Finance Corporation (37 Vols.), Record Group 234, Civil Reference Branch, National Archives and Record Service.
Red Book, XV, Maryland Archives, Annapolis, Md.
“Reports Splendid Record in Trial,” *Shipbuilders Bulletin*, Vol. 1, No. 5 (April 10, 1919).
“Ship Timber Wanted,” in *International Marine Engineering*, October 1917.
Shomette, Donald G. “The Shipwrecks of Mallows Bay: Historic Overview. The Mallows Bay Submerged Cultural

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National Park Service

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Mallows Bay – Widewater Histal and Archaeological District
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- Resource Survey.” Report prepared for the Maryland Historical Trust, Crownsville, mD, December 1994.
- _____. “The Shipwrecks of Mallows Bay: Historic Overview. The Mallows Bay Submerged Cultural Resource Survey.” Report prepared for the Maryland Historical Trust, Crownsville, mD, December 1994.
- Smith, Anthony. *A New and Accurate Chart of the Bay of Chesapeake*, 1776, Geographic and Map Division, Library of Congress, Washington, D.C.
- Smith, Darrell H., and Paul V. Betters, *The United States Shipping Board: Its History, Activities and Organization* (Washington: 1931)
- Smith, John. *General Historie of Virginia, New England, and the Summer Isles* (London: 1624).
- Spelman, Henry. *A Relation of Virginia, 1609* (London: 1872).
- The Aberdeen* (photocopy), enclosed in letter from Harold Huycke to Fred Hopkins, March 30, 1994.
- The Daily World* (Aberdeen, Wash.).
- The National Tribune* (Washington, D.C.).
- The Washington Post* (Washington, D.C.).
- “The Wood Emergency Fleet,” in *International Marine Engineering*, February 1919.
- Tilp, Frederick. *This Was Potomac River* (Alexandria, Virginia: 1978).
- “Two More Ships For Recruiting Service,” in *Shipbuilders Bulletin*, Vol. 1, No. 4 (March 25, 1919).
- U.S. Congress, House, *Hearings Before Select Committee on United States Shipping Board Operations, 66th Cong., 2d and 3d Sess., 1920-21* (Washington, D.C.: 1921)
- U.S. Congress, House of Representatives, *Report No. 91-1761, Protecting America’s Estuaries: The Potomac, 91st Cong., 2d Sess., 1970.*
- U.S. Congress, Senate Committee on Commerce, *Cost of Ship Construction, Letter from the Acting Chairman of the United States Shipping Board Transmitting in Response to a Senate Resolution of November 21, 1918, Information Relative to Existing Contracts for Ship Construction, the Cost of Such Construction, in Both Private and Government Shipyards, 65th Cong., 3d Sess., 1919, 5. Doc. 315.*
- U.S. Congress, Senate Committee on Commerce, *Hearings Directing the Committee to Investigate All Matters Connected With the Building of Merchant Vessels Under the Direction of the United States Shipping Board Emergency Fleet Corporation and Report Its Findings to the Senate, Together With Its Recommendations Thereon, 65th Cong., 2d Sess., 1918.*
- U.S. Congress, Senate, *Government Owned Ships, Letter from the United States Shipping Board in Response to a Resolution of the Senate, Dated October 14, 1919, Submitting Reply as to the Number of Ships Sold, Offers to Purchase, and the Policy of the Board in Disposing of Ships, 66th Cong., 1st Sess., 1919, 5. Doc. 146.*
- U.S. Congress, Senate, Committee on Commerce, *Report of the United States Shipping Board, Letter from the Chairman of the Shipping Board Transmitting in Response to a Senate Resolution of December 27, 1920, A Report Covering the Transactions of the United States Shipping Board and the Emergency Fleet Corporation From Its Inception to February 28, 1921, 67th Cong., 1st Sess., 1921, 5. Doc. 38*
- U.S. Congress, House, *Report of the Select Committee of Inquiry into Operations, Policies, and Affairs of the United States Shipping Board and Emergency Fleet Corporation, 69th Cong., 1st Sess., 1925, H. Rept.*
- U.S. Shipping Board. *Certificate of Incorporation and By-Laws of the United States Shipping Board Emergency Fleet Corporation* (Washington: 1917).
- U.S. Shipping Board, *Second Annual Report* (Washington: 1918).
- U.S. Shipping Board, *Third Annual Report* (Washington: 1919).
- U.S. Shipping Board, *Fourth Annual Report* (Washington, 1920).
- U.S. Shipping Board, *Seventh Annual Report* (Washington: 1927).
- Virginia Gazette* (Purdie), Williamsburg, Va.
- Webb, William Joe. “The United States Wooden Steamship Program During World War I,” in *The American Neptune*,

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October 1975.

Williams, William J. *The Wilson Administration and the Shipbuilding Crisis of 1917: Steel Ships and Wooden Steamers*
(Lewiston/Queenston/Lampeter: 1992).

Wills, Mary Alice. *The Confederate Blockade of Washington, D. C. 1861-1862* (Parson, West Virginia, 1975)

Young, J.J., and W. Hesselbach, *Map of Northern Virginia and Vicinity of Washington, Compiled in Topographical
Engineers Office At Division Headquarters of General Irwin McDowell, Arlington, 1862*, Geographic and Map
Division, Library of Congress, Washington, D.C.

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UTM coordinates continued:

Verbal Boundary Description

The boundary of the Mallows Bay – Widewater Historical and Archaeological District begin at the low water maker at 38°29'01.98" N, 77°16'24.79 W, off the shoreline of Charles County, Maryland, above Sandy Point, and extends 4,489.52 yards westward across the Potomac River to the low water line just east of the Maryland-Virginia border at 38°28'22.44 N, 77°19'07.10" W, near Clifton Point, Virginia. From there the district boundary extends southward following the Maryland-Virginia border to 38°25'50.17 N, 77°18'37.32" W, near Brent's Point, Virginia. From there the boundary extends northeastward to 38°24'58.07" N, 77°15'56.20" W, at Smith Point, Maryland. From Smith Point, the boundary extends northward following the low water mark of the Maryland shoreline to the beginning point. The Maryland side of the district includes both the waters of Wades Bay, Blue Banks, Mallows Bay, Liverpool Cove, and the Mallows Bay "Burning Basin" as far east as the egress for Marlow Creek into the basin itself.

Boundary Justification

Within the boundaries noted above a total of 187 vessels have been documented in the archival record and/or archaeologically as having been shipwrecked or otherwise lost to various causes, with the majority, mostly World War I U.S. Emergency Fleet [EFC] wooden steamships, having been intentionally abandoned. The northeastern-most of the 134 archaeologically identified vessel sites lies at Sandy Point, along with numerous known and potential sites related to the EFC fleet and salvage operations from the period 1923-1945. The northwestern-most extremity of the district is believed to contain a number of vessel remains, yet to be discovered, resulting from various periods when EFC vessels are recorded as having drifted from their containment area at Mallows Bay during storms and were sunk. A few survived and were returned to the Maryland shores, but not all. The central section off the Virginia shore, in a reserve area known as Arkendale Flats, contains at least ten known (and almost certainly more) vessels belonging to the EFC fleet that were accidentally lost while at anchor or intentionally reduced. The southwestern extremity, just north of the entrance to Aquia Creek, may also contained drift vessels, as well as small craft remains related to Civil War activity in the area. The same may be said for Wade's Bay, in which drift vessels are believed to exist, as well as at least one Confederate blockade runner, the *T.W. Riley*, which has yet to be discovered. The smaller area comprising Mallows Bay proper, including Liverpool Cove, and the man-made "Burning Basin" contains the largest assemblage of historic vessels in North America, and possibly the Western Hemisphere.

Wisconsin Word Processing Format (Approved 1/92)

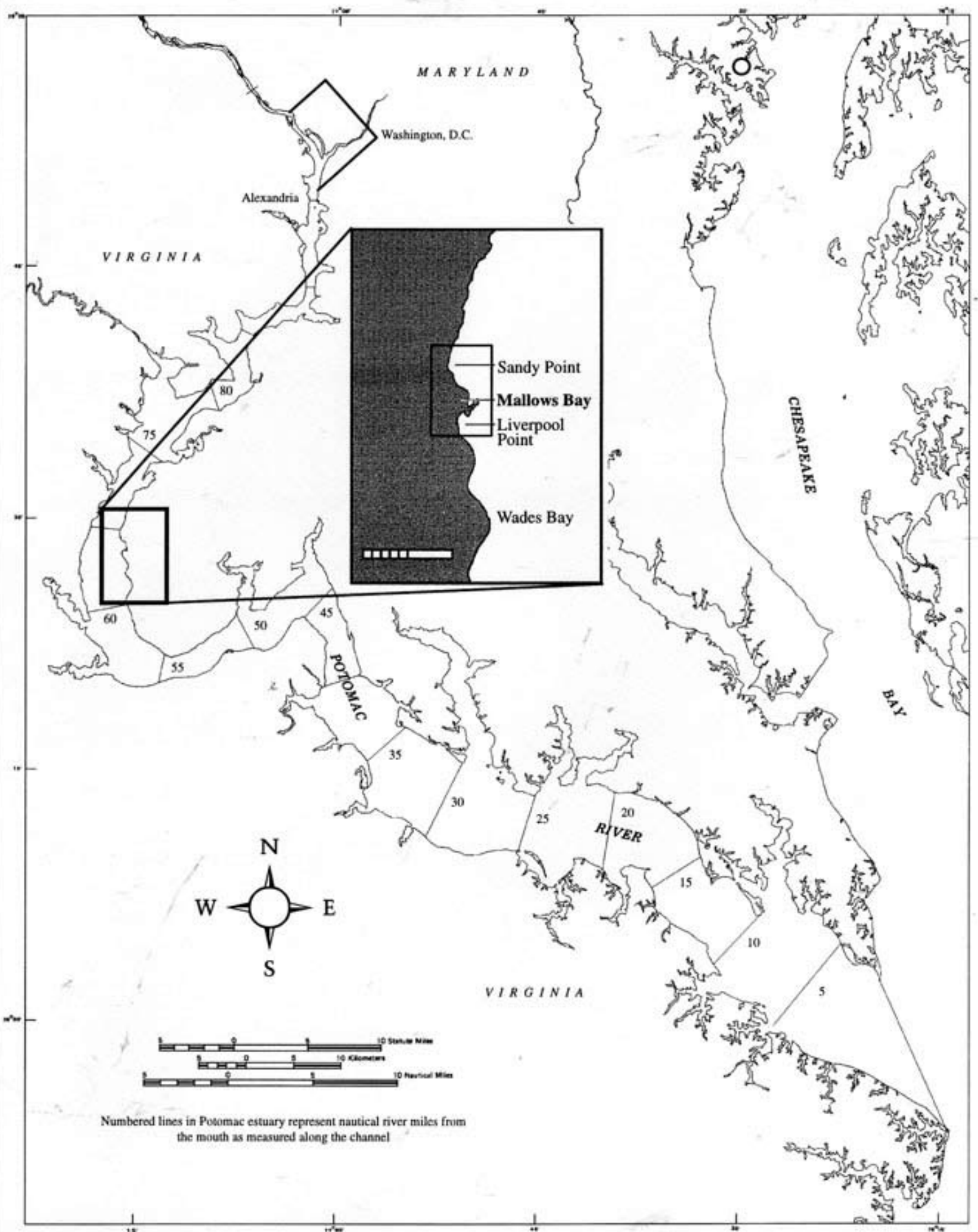
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Mallows Bay – Widewater Histal and Archaeological District
Charles County, Maryland

Section photos Page 1

Map 1. The Mallows Bay Primary Study Area



Numbered lines in Potomac estuary represent nautical river miles from the mouth as measured along the channel

Map 3. Disposition of USSB Steamship Hulks in Mallows Bay 11 August 1929

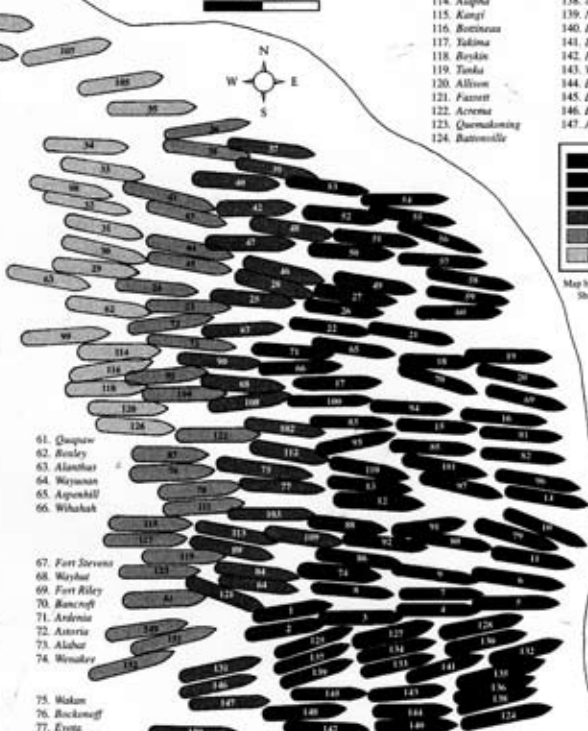
Note: All numbers shown were assigned by the Army Corps of Engineers

Scale in Feet 500



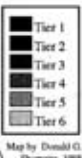
NAME KEY

1. Grayling
2. Ianza
3. Akala
4. Kolomo
5. Fort Hill
6. Honale
7. Bin Secour
8. Brompton
9. Darrak
10. Cabera
11. Clodia
12. Marshfield
13. Kickapoo
14. Mahout
15. Abbeville
16. Boone
17. Balaban
18. Kanaker
19. Saris
20. Celona
21. Cocconino
22. Aiken
23. Bonjey
24. Florin
25. Neerlak
26. Anale
27. Angelina
28. Muckito
29. Bobbing
30. Bonaria
31. Onatama
32. Calala
33. Kwash
34. Casmulla
35. Blue Eagle
36. Adway
37. Boligan
38. Moraine
39. Acvalde
40. Bayou Teche
41. Pampa
42. Cumberland
43. Aqueo
44. Dantz
45. Bellbrook
46. Charon
47. Dungeness
48. Broadburn
49. Laticia
50. North Bend
51. LeForge
52. Conwago
53. Mossabbe
54. Bushong
55. Dentona
56. Bushrod
57. Bolston
58. Aphanis
59. Winkabbe
60. Forster



112. Bralimister
113. Cabeta
114. Alpha
115. Kangl
116. Bottinara
117. Tallina
118. Boykin
119. Tanka
120. Allison
121. Fuzzett
122. Acroma
123. Quenamoking
124. Battsaville

136. Balana
137. Gullford
138. Unastita
139. Nematta
140. Brentwood
141. Escour
142. Hahak
143. Wakkajam
144. Bantley
145. Blandon
146. Brentonia
147. Anoka



Map by Donald G. Shomon, 1998

61. Quapaw
62. Buxley
63. Alantbat
64. Wayman
65. Apushkill
66. Wihahak

67. Fort Stevens
68. Waybur
69. Fort Riley
70. Bancroft
71. Aralnia
72. Antaria
73. Alabar
74. Winkley

75. Wakan
76. Beckenoff
77. Eyzon
78. Andru
79. Kinta
80. Mafre
81. Quinard
82. Katmah
83. Capitar
84. Buttsbacher
85. Couler
86. Arandul
87. Honnar
88. Aldir
89. Bonicia

90. Woyaca
91. Afulley
92. Oulka
93. Medford
94. Fernandina
95. Boynton
96. Tika
97. Barrington
98. Buckhorn
99. Monr
100. Swampscoot

101. Lenake
102. Sewickly
103. Aha
104. Bahusan
105. Towanoka
106. Ravel
107. Dulgado
108. Alctor
109. Lewinton
110. Kreta
111. Folson

125. Compave
126. Nemecki
127. Renu
128. Amoren
129. Balino
130. Falonath
131. Anthera
132. Rarobin
133. Pancagzonia
134. Dancry
135. Onaton

148. Belgrade
149. Arno
150. Kanite
151. Napoleia
152. Carbow

Note: Obak and Bockford are at Sandy Point