



# OVERFALLS LIGHTSHIP

LV118 (1938-1947)/

WAL539 (1947-1965)/

WLV539 (1965-1973)

Ship Tour Guide Manual

Overfalls Maritime Museum Foundation

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## OPENING AND CLOSING THE SHIP

First things first. Ship guides are expected to open and close the ship each day that tours are offered. The following are checklists for the tasks required.

### Opening the ship

- **Please arrive a few minutes before your shift.**<sup>1</sup>
- In the morning, **obtain the ship key from the Ship Store.**<sup>2</sup> The ship key is on a rubber frog keychain in the top drawer behind the counter. The **ship key works in three padlocks**, as follows: (1) the gate at the bottom of the gangway ramp; (2) the portside hatch leading to the breezeway between the wheelhouse and the radio room; and (3) the portside hatch farther aft leading to the officers' quarters. **Once these locks are open, leave them unlocked and in place. Return the key to the Ship's Store as soon as possible—do not, repeat, do not leave the key on the ship.**
- When opening the gangway gate, **make sure the flip sign on the gate reads "Open"**. Unhook and **swing down the hinged plate at the end of the gangway ramp**, and **secure the gate to the side of the gangway** with the chain and hook attached to the gate.
- **After opening the aft portside hatch**, secure it to the outside bulkhead with the attached hook.
- **After opening the forward portside hatch**, use the hook on the outside to secure the hatch to the outside bulkhead. Step into the breezeway and **open the starboard hatch from inside** and secure it on the outside, as well.
- In the forward breezeway you will find **two black, wood-plank information boards**. One has a picture of the fog horn on it: hang it on the vertical ladder outside the forward starboard hatch. The other is to be hung on the vertical ladder outside the forward portside hatch. These not only provide information to visitors, but also serve as a deterrent to visitors who might be tempted to climb those vertical ladders, which are off limits for the tour.
- **If the flags are not up** (and generally they will be), **you will find them in the forward breezeway. The State of Delaware and City of Lewes flags should be hoisted on the port side, with the State flag on top. The signal flags (which are connected in a specific order) should be hoisted on the starboard side; these flags spell out LV-118.**<sup>3</sup> As a rule, the flags are up throughout the season, but **if high winds are expected, they should be taken down and stowed in the forward breezeway.** The American flag (the ship's

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<sup>1</sup> This applies to guides in the morning, as well as in the afternoon.

<sup>2</sup> If the Ship's Store is not yet open, there is a key box by the door of the Store; you will be given the code for the key box. If you use the key box, there are two door locks that work on the same key, a dead bolt and on the door knob. Once inside the shop, leave those keys in the top drawer behind the counter; the Ship Store volunteer will use them to lock the Store at the end of the day and put them back in the key box.

<sup>3</sup> For several years, the flags spelled out WAL-539, which the Coast Guard designated to replace LV-118 in 1947, but the Overfalls Board agreed to return the original designation.

“ensign”) at the stern is generally always up. Also, there is normally a small union jack (50 white stars on a blue background) hoisted on the pole on the bow; the jack is flown whenever the ship is moored.

- **In the wheelhouse, the port side hatch leading directly to the small exterior ladder can be opened from the inside for ventilation.** The starboard side hatch in the wheelhouse remains closed. Portholes in the wheelhouse may also be opened, as needed.
- Overhead lights may be turned on in the wheelhouse, breezeway, and radio room, if needed, but daylight is usually enough in those areas. Just inside the radio room is a **CD player** that should be turned on—the CD provides continuous background engine and whistle sounds throughout the ship for a more authentic atmosphere.
- **Walk the crew’s deck below and turn on overhead lights** (including the red ones) **and open portholes for ventilation, as needed.** The **skylights in the Officers’ ward room may be cranked open for ventilation, as well, but you will need to loosen the “dogs” on the main deck first.** **Free-standing fans** are located in the forward area behind the anchor windlass (next to the washing machine); in the crew’s day room, in the crew’s mess outside the galley; and at the top of the vertical ladder in the officers’ ward room. **A deck fan may be used on the foredeck to pull warm air out of the fore peak area below it.**<sup>4</sup> If any fan does not work when you turn it on, check to see if it is plugged in.
- **\*\*Return the ship’s key to the Ship Store.**
- **Place a couple of chairs on the porch of the Ship’s Store** where guides can sit between tours. There is an **“OPEN” flag just inside the Ship’s Store** that you can place in the holder on the left exterior corner of the Store.

## **Closing the ship**

- **Turn off lights and fans on the crew’s deck.**
- **If the forward deck fan is used, unplug and stow the fan in the radio room and make sure the deck hatch is secured from below.**
- **Close and secure all portholes** on the crew’s deck and in the wheelhouse. Make sure all four porthole “dogs” are tightened on each one. Leaking portholes are not a good thing.
- **Make sure the skylights above the ward room are cranked closed and their outside dogs on the main deck are tightened.**
- **If need be, take down the flags and stow them** in the forward breezeway. As a rule, this will not be necessary most days during the touring season.
- **Remove the information boards** from the vertical ladders outside the forward breezeway hatches **and stow them in the forward breezeway.**
- **Turn off the CD player in the radio room.**

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<sup>4</sup> This fan, in a hexagonal wood frame can be found in the radio room. The deck hatch must be opened from below, and the fan plugged in below near the ladder in the fore cap.

- **Check with the Ship Store volunteer before locking up.** He/she will have an envelope to be placed in the locked “aquarium” in the wheelhouse at the end of the day.
- **Close and secure the portside wheelhouse hatch from the inside.** It has two locking mechanisms, the big black handle and a chain.
- **Close and secure the starboard breezeway hatch from the inside**—it has two locking mechanisms, a hasp and a chain.
- **Close and padlock the portside hatch to the forward breezeway.**
- **Close and padlock the portside hatch to the aft breezeway.**
- **Close and padlock the gate at the bottom of the gangway and secure the hinged plate at the end of the gangway to the gate.**
- **Flip the sign on gangway gate to read “Closed”.**
- **Stow the chairs from the porch,** either inside the Store or behind the steps leading from the Stephanie Anne behind the Store.
- **Go home and have a beer—you’ve earned it.**

## THE TOUR

It is not necessary to give a long history of lightships, in general, or of the Overfalls, in particular, to every tour group, but it is good for ship guides to have a good handle on that history.<sup>5</sup> You can draw on any or all of it to make your tour more interesting and, more importantly, accurate. The tour should be tailored to your audience—young children have a short attention span, older visitors have trouble with standing for a long time, heat may be a factor, etc. Normally, the tour should not last more than 20-30 minutes, but occasionally, you get a small group that is really interested in what you are saying and will ask a lot of good questions, so feel free to take extra time with them—they will show their appreciation for it. The tour steps outlined below represent best past practice, which has naturally developed with experience. These steps need not necessarily be followed in the sequence given, but the order seems to work well under normal circumstances. **Heat alert: On especially hot summer days, temperatures on the crew's deck below can climb quickly, despite open portholes and fans. If the temperature below rises above 85 degrees F, you should suspend tours and close the ship, for the safety of visitors and yourselves. Bottled water is usually available for guides in the Ship Store (at nominal or no cost, depending on who is manning the Store) or in the small refrigerator in the ship's radio room (free to guides).** Let's get started.

**Bow, main deck.** Gather your group on the fore deck, introduce yourself, and let the group know that they will be touring the main deck and the crew deck below.<sup>6</sup> Also remind them to watch their step on any wet surface (e.g., a rainy deck), over high hatch thresholds, etc. This is a good time to impart some of that historical knowledge concerning lightships, in general—the purpose of lightships, naming protocols, how many built, how many stations, dangers faced, etc.—followed up by information on the Overfalls, in particular—stations served, a few sentences on the Overfalls station and the ships that served there, physical statistics, etc. Some key data for LV-118 are as follows:

- Keel laid in 1937, ship launched and commissioned in 1938, built by Rice Brothers Shipyard in East Booth Bay, ME, at a cost of \$223,900.
- Served at CORNFIELD POINT<sup>7</sup> (eastern end of Long Island Sound) during 1938-1957; CROSS RIP (near Martha's Vineyard, MA) during 1957-1962; and BOSTON (outside the harbor entrance) during 1962-1972. Decommissioned in 1972 and moved to Coast Guard facility at Curtis Bay, in south Baltimore on the Chesapeake Bay. Obtained by the

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<sup>5</sup> Historical background information in the last two sections of this guide was gleaned from various sources, including "A History of U.S. Lightships" by Willard Flint; "Lightships in the U.S." by James P. Delgado; "Lightships, Floating Lighthouses of the Mid-Atlantic" by Wayne Kirkland; the "National Historic Landmark Nomination" submitted for LV-118 to the US Department of the Interior, National Park Service; and various on-line websites.

<sup>6</sup> The engine rooms below the crew deck are generally not part of the tour, because the access ladders are steep, space is lacking, there are numerous hazards to avoid, etc. [N.B.: Once in a great while, however, we get a former engine-room veteran with first-hand knowledge; time permitting, we can take him below, both for his enjoyment and for us to learn something from him.]

<sup>7</sup> A print of LV-118 with CORNFIELD painted on its side hangs in the Ship Store Museum.

Lewes Historical Society in 1973. Turned over to the Overfalls Maritime Museum Foundation in 2001.

- LV-118 never served on the Overfalls station, but the Lewes Historical Society named the ship “Overfalls” in honor of the nearest station to Lewes; the last lightship to serve on the Overfalls station had been removed and replaced with a navigational buoy in 1960. The Overfalls station had been served by four lightships between 1898 and 1960; the first two of those have been scrapped, and the last two exist as museums in Portsmouth, VA (the lightship “Portsmouth”), and Oakland, CA (the “Relief”).
- Though commissioned as LV-118 (light vessel #118), the ship was re-designated by the Coast Guard as WAL-539 in 1947, and then WLV-539 in 1965.
- Six diesel engines on board: main propulsion--400 hp Cooper-Bessemer 8-cylinder engine (maximum speed 9 knots (10-11 mph); three generators (220-volt, DC electricity), two air compressors.
- Two mushroom anchors: main anchor 7,000 pounds, auxiliary anchor 3,000 pounds
- Length 114 ft.; beam (greatest width) 26 ft.; draft 13.4 ft.; displacement (weight) 412 tons.
- Navigational light: single mast light rated 15,000 candle power (about 1,000 watts; bulb on display in Ship Museum); 12-mile range on a clear night; flashed every 3 seconds from dusk until dawn.
- Fog horn (dual air diaphones), 5 mile range; sounded every 15-30 seconds, 24/7, as long as fog persisted.
- Diesel fuel storage capacity: 10,500 gallons
- Potable water capacity: 4,000 gallons
- 10 tanks on each side, effectively giving the ship a double hull at the waterline. From fore to aft on each side are found the following: a ballast tank, two fresh (potable) water tanks, a coffer dam; five diesel fuel tanks, and another ballast tank. Pumps were used to fill ballast tanks with sea water, and compressed air was used to evacuate the tanks.
- 14-man crew (4 officers, 10 crew), but only 11 on board at any one time; crew normally assigned for 18 months to 2 years; work schedule was two increments of time on board, with one increment off (e.g., two weeks on, one week off, two months on, one month off, etc.). On-board crew comprised three officers and eight crew (including the cook).

Some things to point out while on the foredeck:

- The steep **pitch of the deck**, to minimize the amount of seawater splashing over the bow in heavy weather.
- **Main anchor (7,000 lbs.)** on ground off port bow. **Auxiliary anchor (3,000 lbs.)**, on starboard side of foredeck rail, occasionally dropped for more holding power in heavy

weather.<sup>8</sup> Even with both anchors out, it was not unusual for the ship and its anchors to be dragged off position by high winds or moving ice, in which case it would be necessary to wait out the event, take in the anchors, start the engine to reposition the ship, and drop the main anchor once again.

- The **air vents** providing fresh air to the decks below. In heavy winds, they swivel to turn their backs to the wind, which prevents rain from going down the vents.
- The 42-gallon, **yellow gasoline tank**, used for starting cold diesel air compressors. Note the mechanism that could be used to drop the tank into the sea with a yank of the handle, in case there was a fire on deck.<sup>9</sup> A rope line was tied to the tank, so that it could be retrieved after the fire was put out. Archival photos show that there were two similar gasoline tanks on the port side of the stern.
- The **orange life raft on the flying bridge**.
- The **Stephanie Anne** addition to Ship Store, which now serves as the **American Lightship Museum**, the only land-based museum dedicated solely to US lightships and their crews. The structure was donated from a boat built in 1955 that had been named for the owner's daughter, who died at a young age. Restored by Overfalls volunteers and attached to Ship Store as a museum.<sup>10</sup>
- The **Ship Store** itself was a repurposed bait shop formerly located in what is now Canal Front Park.
- **Canal Front Park**, formerly a parking lot for the old boat ramp, which itself is now used only for putting in canoes and kayaks.
- The **Lifesaving Museum** on the other side of the Ship Store (maintained by Lewes Historical Society, which also offers tours from time to time).

**Starboard side amidships.** Things to point out:

- Point out the **fog horn** and how loud it was; 5-mile range. Blasted every 15-30 seconds 24/7 as long as fog persisted. Sound caused permanent hearing damage to many crew members. Shock waves were strong enough to break wings of sea birds that flew too close. Redundant compressed-air conduit system can be seen through round windows of the housing below the horn.
- **Signal flags** designating LV-118.

**Stern.** Things to point out:

- **Davits** where the lifeboat was hung;<sup>11</sup> the **deck-mounted windlass** facilitated raising and lowering the lifeboat. The lifeboat was fully rigged for rapid deployment, because

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<sup>8</sup> The auxiliary anchor would be dropped only as a last resort. The danger of having both anchors out in a storm was that their chains could be tangled with each other if the ship swung around with the tide or the wind.

<sup>9</sup> Archival photos show two additional gasoline tanks located on the port side of the stern. Part of their fire-safety release mechanism can still be seen there.

<sup>10</sup> The original boat (Stephanie Anne) still berthed across the canal from the Overfalls, with a new superstructure.

<sup>11</sup> A representative lifeboat lies on the children's playground off the starboard aft of the ship.

lightships damaged in storms or collisions could sink in 15 minutes or less.<sup>12</sup> The windlass operated on compressed air generated in the auxiliary engine room below decks.

- **Feeder pipes** for pumping fresh water (blue) and diesel fuel (yellow) from supply boats. Two other sets of feeder pipes can be seen on the starboard and port sides, amidships.
- **Top of rudder post and large wrench**—backup system, power-assisted by the deck-mounted windlass, **for emergency steering capability** in case the steering cables from the wheel house failed.
- **Propeller** 7 ft. 2 in. in diameter, located on the ground just behind the ship's stern. Restoration and display was a special project carried out by a local Eagle Scout.
- **Monomoy**, a Merchant Marine training boat, with places for 10 oarsmen,<sup>13</sup> displayed under the red-roofed structure (donated) behind the ship; boat restored by Overfalls volunteers in 2015.
- On the ground aft of the ship, **screw-pile support** for screw-pile lighthouses used in shallow waters of the Chesapeake Bay, and **various buoy channel markers**.

**Port side, amidships.** Point out the **hand-operated davits** used to raise and lower a 26-ft. diesel-powered motor launch, which was used to ferry crew and supplies to and from larger supply tenders or for occasional trips to shore. They could also be used to raise and lower the gangway when the ship was in port.

**Forward breezeway.** Saving the wheelhouse for last, point out the **radio room** before descending the ladder to the crew deck. In the radio room are two transmitters (one a backup), which broadcast a 4-digit code every thirty seconds 24/7; the code served to identify the lightship and its location and served as a homing radio beacon for other ships. Also note the **flag locker** area in the breezeway.

**\*Set the example for your visitors by descending the ladder to the crew deck backwards.** It is safer and easier; there are two handrails with good gripping surface.

**Crew's day room and forecastle (forward of crew's day room).** Things to point out:

- **Crew's quarters.** Point out double bunks, half-locker storage, reading lights in sleeping areas. Since the ship operated 24 hours a day, not all crew slept at the same time. Radiator heat for cold weather (boiler in forward engine room below). No AC, but portholes could be opened and fans were run in hot weather.
- **Day room.** Common area for crew could be used for off-duty relaxation, games, reading, writing letters, basket weaving,<sup>14</sup> etc. Note grilled hatch leading below decks

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<sup>12</sup> More than half of collisions involving lightships occurred in daylight hours.

<sup>13</sup> The ten oars and four extras are displayed in the rafters above the Monomoy.

<sup>14</sup> Yes, basket weaving. On some stations, crew members became so good at it that their goods sold for high prices at auction. However, in the late 1800s or early 1900s, the Lightship command disallowed basket weaving because enthusiastic crew were neglecting their duties.

where large white accumulator tanks stored compressed air at a constant pressure of 100 psi, for powering the anchor windlass, the main-deck windlass, and the fog horn, and for starting the main propulsion diesel engine. Also point out man-hole covers in sleeping quarters (and all along both sides of the ship on the crew deck), which provided access to fuel, water, and ballast tanks.

- **Red overhead lights** served dual purpose. First, around 10:00p, white overhead lights were turned off in crew's quarters to facilitate sleeping, and red lights turned on, by which on-duty crew could perform their tasks. Second, in case of a night-time emergency requiring crew to hit the main deck in a hurry, the crew's eyes, being already used to the red light, could adjust to the dark conditions outside much more easily.
- **Vestiges of water fountain ("scuttlebutt")** under main ladder. Other water fountains were in the Officer's quarters and engine room.
- **Schematic of the ship's three decks.**
- **Duty board.**
- **Forecastle.**
  - **Anchor windlass.** Powered by compressed air. Left side chain leads to forward hawse hole for main anchor.<sup>15</sup> Right-side chain leads to starboard side for auxiliary anchor. Outermost spools on each end used for ships lines fed through upper deck, to assist docking and raising the auxiliary anchor to the starboard deck rail. Chain length varied according to the depth at station and weather conditions (extra chain was played out to help stabilize ship in hurricane weather).
  - **Chain locker** directly below the windlass (see feeder holes at base of windlass). "Flaking the chain" was a labor-intensive procedure for lining up chain links in the chain locker such that, when the chain was let out again, it would not snag at the windlass.
  - This is a **good time to mention the restoration and maintenance work of the Dirty Hands Gang**, which continues to work on the ship on Tuesdays and Wednesdays during the tour season and beyond.
  - **Crew's head**, with shower, sinks and commodes. Wastewater was flushed directly into the sea; one hopes that the currents or tides were running away from the ship.
  - **Food freezers.**
  - **Washing machine.** A 1930s vintage machine with attached wringer. Not taken from its original packing box until 1969, when it was installed on the ship. Used partly because it ran on 220 volt electricity generated in the forward engine room.

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<sup>15</sup> Since the main anchor is now on the ground next to the ship, the forward hawse hole is now occupied by a much smaller mushroom anchor, for the aesthetics and to keep weather and wildlife from entering.

- **Fore peak with emergency supports in case of collision damage.** This is a **good time to talk about** the collision in 1934 between *RMS Olympic* and the Nantucket lightship (LV-117). For background, see the last section, **The Sinking of LV-117**, below.

**Galley and crew's mess.** Things to point out:

- **Water-tight hatches vs. non-water-tight hatches.** Both engine rooms could be isolated by water-tight hatches which could be battened down in an effort to smother any fires that may occur there.<sup>16</sup> The galley hatches are not water-tight, possibly to avoid trapping anyone in the galley with a hot stove.
- **Galley stove**—a coal burner installed new on the ship and converted to burn the same diesel used for the engines. Note steel bar “fence” to prevent pots from sliding off in rough seas.
- **Typical menu for meals.** Regular meal schedule of breakfast, lunch, and dinner. Typical menu displayed. Crew working all night were supplied snacks during the night. The Cook was an established position, and he was sometimes assisted by another crewman who had other responsibilities.
- **Photo of supply boat.**
- **Art-deco design** on stainless steel cupboards.
- **Wind-up clock** on the post in the gallery.<sup>17</sup>
- **Bronze plaque in crew's mess.** Awarded by the Department of the Interior, National Park Service, when LV-118 was designated as a National Historic Landmark in 2011. LV-118 is the only National Historic Landmark in Sussex County, and the only maritime National Historic Landmark in the State of Delaware. There is a typographical error on the plaque—you may want to challenge your tour group to find it. A corrected plaque is mounted on the commemorative wall facing the Ship Store.
- **Main engine room**, where the main propulsion diesel engine can be seen through the deck grates. The main engine room (or aft engine room), is smaller than the auxiliary engine room, which houses more equipment. The **400hp, main propulsion diesel engine** was started using compressed air (with the addition of ether, if necessary), and was capable of moving the ship at a speed of about 9 knots (10-11 mph). The main engine room was quiet and unmanned most of the time, except when the ship was to be relocated, or during heavy storms, when the engine was started to have it ready in case of emergency and to prevent the dragging of the ship's anchor(s). In the upper engine room (on the crew deck level) various engine parts are displayed on the bulkheads. The **CO2 fire extinguishers** are equipped with hoses that can reach all areas

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<sup>16</sup> Water was also sprayed on engine room bulkheads to prevent excess heat from igniting flammable materials in adjoining compartments.

<sup>17</sup> This clock and those in the wheelhouse and radio room were picked up as surplus from other ships being scrapped. They require winding, but still keep time.

of the crew deck and engine deck in the aft half of the ship. A second set of fire-extinguishers is located in the portside passageway; the hose could reach the forward areas on the crew deck, as well as the forward engine room and chain locker below decks.

**Officers' ward room and quarters.** Things to point out:

- **Ward room table**, with real chairs (not benches), rings on the table for threading ropes to hold chairs in place during rough seas. Note skylights above the table, which can be cranked open for ventilation. Officers were usually served their meals at this table.
- **Note roomier, single-bed accommodations** for officers, with full-length closets, individual sinks, desks and chairs, etc.
- **Three officers on board**, including a Chief Warrant Officer (serving as "Captain") an Engineering Officer (whose importance to ship operations was probably greater than that of the Captain), and a petty officer.
- **Officers' quarters were generally off limits to other crew**, unless by "invitation" to serve meals, make necessary repairs, receive disciplinary action, clean the officers' head, etc. It has been reported, however, that some officers would dine with the crew on the mess deck outside the galley and show movies in the ward room for the whole crew to watch.
- **Separate ladder and breezeway to top deck.**
- **Ship's office.** Of note is the small safe mounted on the bulkhead, which was used to store secret war codes during WWII, when LV-118 was one of only six lightships operating between Philadelphia and Boston during the war. All administrative records for the ship were kept here.
- **Rudder post.** Surrounded by storage lockers. The mechanism at the top of the post is called a quadrant (i.e., one-fourth of a circle), to which the steering cables are attached and lead through the ceiling to the rack-and-pinion steering mechanism for the helm in the wheelhouse.
- **Gun locker.** Seldom used, but reportedly a rifle would be brought out to scare off sharks if crew were practicing lifesaving skills in the water or off-duty crew were swimming near the boat for recreation.
- **Open grate in passageway deck**, leading to more storage and another circular opening below, revealing the sheath around the ship's propeller shaft.

**Portside passageway.** Things to point out:

- The **Engineer's workbench**, where he could repair worn parts, make new parts, etc. What he was unable to do, given the limited tools and resources available to him on board, the regular supply boats could bring what was necessary. Off-duty crew might be offered training by the Engineer, as well.

- **Fire-extinguishers** (fully operable) whose long hose can reach all crew deck and below-deck areas of the forward half of the ship.
- **Refrigerators for food.**
- **Open “cage”**, used to store asbestos suits for firefighting. [N.B.: Urban legend says this compartment could also be used as a temporary brig, if need be.]
- **Electric-powered sump pump** for removing water from the crew deck in case of flooding. It could also be lowered into the sea to pump water onto the ship to help firefighting efforts.
- **Submersible hand pump** (mounted on the outer bulkhead).
- **Coaling doors** on the outer bulkhead, which were never used and are welded shut. LV-118 was never designed to run on anything except diesel, so it is not clear why the coal doors were installed in the first place.
- **Forward engine room (or auxiliary engine room).** This room was the working heart of the ship, generating the bulk of the noise and heat in the ship and supplying the power, heat, and energy to keep all its critical systems and operating 24 hours a day. It is larger than the main engine room farther aft, because it housed, among other things, the following:
  - **three diesel electric generators** (which ran in sequence, producing 220-volt, DC current for electrical power, communications, and lighting components of the ship);
  - **two diesel-powered air compressors**, which maintained air pressure in large accumulator tanks below the crew’s day room at a constant pressure of 100 psi. As already noted before, compressed air powered the anchor windlass in the forecastle, the top-deck windlass (aft), and the fog horn, and was used to start the main propulsion engine when the ship needed to be moved to another location. Compressed air was also used to facilitate evacuation of ballast tanks.
  - **Pumps** for filling and emptying ballast tanks, and distributing diesel fuel and potable water.
  - **Boiler for the steam radiator heating system.**
  - **Hot water heater for crews’ use in galley, showers, sinks and washing machine.**

**Up the main ladder to the wheelhouse.** The bridge, or wheelhouse, was the control center of the ship and was manned 24 hours a day. **Alert visitors to the extra height and steepness of the steps leading from the breezeway to the bridge.** They are much more difficult to navigate than the ship’s main ladder. Things to point out:

- The **ship’s wheel** (or helm) was missing, when the Lewes Historical Society obtained the ship from the Coast Guard. The wheel was replaced by a newer wheel from a sailing vessel, but that wheel was soon stolen from the ship. The current replacement is closer to the original and more historically accurate for the time the ship entered into service in 1938. On the top of the helm’s post is an arrow indicating the angle of the rudder

controlled by the helm. The steering comprises a rack-and-pinion mechanism, with a cables attached to each end of the rack, each cable extending back to the rudder post and its “quadrant”.

- The **binnacle** housed the ship’s compass. The red and green iron balls could be shifted closer to or farther from the compass to calibrate it. This was necessary to offset the distortion of the earth’s magnetic field (upon which the compass relies) by the ship’s own steel structure. A **second binnacle is mounted on the roof of the wheelhouse**, partly as a back-up, and partly to assist the helmsman in steering the ship when it was necessary to relocate. This steering assistance, with a hand-held radio from above, may have been necessary because it is difficult to see over the steeply pitched bow of the ship from the wheelhouse interior.
- The brass **engine room telegraph** is mechanically connected by wires and what appear to be bicycle chains passing through the ceiling of the crew’s deck and leading to another telegraph in the main engine room.<sup>18</sup> As seen on TV and in the movies, the bridge could communicate orders to the engine room to increase or decrease ship speed, stop engine, reverse engine, etc.<sup>19</sup>
- The **surface radar equipment** (RCA, US Army surplus). The steel bars extending from the unit up through the ceiling are connected to the unit’s radar antenna mounted on the roof of the wheelhouse. The radar was installed on LV-118 in 1943, when it was still on the CORNFIELD station. This equipment was placed on all six of the US lightships still on station on the east coast during WWII. The radar had its limits: it could track other surface ships within its working range, but could not detect submarines (i.e., enemy U-boats) or aircraft.
- **Two radio telephones**, one a backup for the other, were used for ship-to-shore and ship-to-ship voice communication. These had a range of about 25 miles.
- **The ship’s bell** was missing from the ship when it was acquired from the Coast Guard. It was replaced with another bell from the same period, which is still mounted on the ship’s mast.<sup>20</sup> The original bell remained missing for more than 25 years, until one day, a telephone call from Boston brought news of its existence. Overfalls volunteers wasted no time or effort in driving to Boston to recover the bell, with no questions asked or answered, and bringing it to Lewes. The replacement bell is still on the mast, and the original bell is nicely lacquered and kept in a wood and glass presentation case for safekeeping. During the off season, the bell is stored and brought out for special occasions only. During the tour season, it now resides in the ship’s wheelhouse for all to see.

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<sup>18</sup> The engine room telegraph was also missing from the ship when it was towed into Lewes in 1973, but has since be replaced with a historically-accurate unit from the period.

<sup>19</sup> On LV-118’s main engine, there is no reverse gear. In order to back the ship up, it would have been necessary to stop the engine, adjust the gearing for the propeller shaft, and then restart the engine.

<sup>20</sup> This replacement bell was picked up as surplus from another ship that was being scrapped.

- **The 24-hour clock** mounted on the bulkhead above the binnacle. US military ships, police stations, hospitals and other entities still use a 24-hour time system, with 1 through 12 referring to the hours between midnight and 12:59p, and 13 through 24 referring to the hours 1:00p through midnight (for example, 1:00p becomes 13:00, 2:00p becomes 14:00 and so on until 24:00 or midnight; 2:15p would then read as 14:15.)
- **Alarm system panel** near the radio telephones.
- **Former placement of voice tubes to captain's quarters and to engine room.** The position of these tubes is marked by numbers on the forward interior bulkhead of the wheelhouse. As seen on TV and in movies, the helmsman or other bridge personnel would blow into a mouthpiece, imparting a whistle at the other end, where the responder would answer by speaking into his own mouthpiece. These tubes have not been restored, because replacement mouthpieces have not been located.
- **Navigation chart showing lightship stations in the local region.**
- **Photos, if available.**
- **Monkey fist knot and leader**, hanging on the helm. This is weighted on the inside, and though it could be used as an effective weapon, it had, in fact, a more mundane use. In short, the leader loop of the knot is tied to a long, light-weight rope line. The other end of the rope is tied to the end of the ship's heavier mooring line. The weighted monkey fist is flung from the ship to a receiver on the dock, who then pulls the light rope and the heavier mooring line to a bollard for tie-up.
- **The "aquarium"** on the table beneath the radio telephones is strategically placed for visitors to see. Having already paid for tickets, I find that satisfied customers will also throw a dollar or two in the slot. Of course, as we are volunteer guides, we do not accept tips occasionally offered by satisfied visitors, but instead encourage them to donate to the aquarium instead. Brochures for Overfalls membership should also be available on the table in the wheelhouse for those who are interested.

## A CONDENSED GENERAL HISTORY OF US LIGHTSHIPS

The **first US land-based lighthouse** was built at Boston in 1716 and used a cannon for a fog signal; this was during British colonial rule. After the United States gained its independence, the **US Lighthouse Establishment (USLHE)** was created in 1789, as part of the US Department of the Treasury. This organization was replaced by the **US Lighthouse Board** in 1852, and by the **US Lighthouse Service (USLHS)** in 1910. The **US Lifesaving Service**, a separate agency, operated from 1878 to 1915, when it was merged with the **US Revenue Cutter Service** to form the present-day **US Coast Guard**. The USLHS was absorbed by the Coast Guard in July 1939. Under the Government agencies listed, the United States would go on to establish an estimated 1,500 light houses.

**Lightships** were essential partners with lighthouses in providing safe navigation along US coastlines and in the Great Lakes. Lightships had already been employed in Europe for many years before the first US lightship, a wooden schooner, was put on station in 1820 at the mouth of the Chesapeake Bay (near Willoughby Spit, VA). Between 1820 and 1952, 179 lightships were commissioned by the Government and moored over treacherous shoals and reefs, where it was not feasible to build a lighthouse, or situated farther offshore, where a land-based light could not be seen effectively.

Starting in 1856, newly-commissioned lightships were given an official designation, e.g., LV-118 (“light vessel no. 118”, the designation of our Overfalls). Prior to that time, there was no consistent system for identifying lightships, except by their station names. In 1938 the USLHS retroactively assigned letter codes (A through ZZ) to lightships commissioned before 1856. The LV designation was used until 1947, when the Coast Guard moved to a WAL designation (i.e., WAL-539 for LV-118). The “W” was an indicator for the Coast Guard, and the “AL” stood for either “anchored light” or “auxiliary light”, depending on one’s source. In 1965, the Coast Guard again changed its designations for lightships to WLV (i.e., WLV-539 for LV-118), again with “W” indicating the Coast Guard, and the “LV” referring to “light vessel”.

While a lightship’s official designations were permanent, the ship was also temporarily named for the station where it was moored. Moorings were long-term and stationary. As an operating light, with the same importance as a land-based light, it was important that the ship remain in position for periods of months or years. Over the history of US lightships, there were 116 stations established by the Government around US coastal waters and the Great Lakes. However, given the changing nature of shoals and reefs, lightship stations would be established and disestablished over the years, such that there were generally no more than 50 stations actively operating at any one time, most of them along the eastern seaboard. All lightship stations were important to safe navigation, but the better-known and busier stations included “Ambrose” (at the southern entrance to New York harbor along the New Jersey coast); “Nantucket” (on the treacherous Nantucket Shoals and at the American end of the crucial transatlantic shipping lanes coming from Europe); “Chesapeake” (at the entrance to the

Chesapeake Bay); “Diamond Shoals” (in the dangerous shoals off the Outer Banks of North Carolina); “San Francisco” (west of the Golden Gate spanning the entrance to the San Francisco Bay); and “Huron” (6 miles north of Port Huron, aiding shipping in the Great Lakes).

Oftentimes, a succession of lightships would serve a single station. For example, there were twelve “Nantucket” lightships, each with its own unique LV/WAL/WLV designation(s). Similarly, an individual lightship might have served on more than one station, so that, in addition to its official designations, it would have several station names. The “Relief” name was used for lightships that were placed on various stations temporarily to replace an assigned lightship that needed to go into port for maintenance or repairs. LV-118 had three station names when in active service, but Overfalls was not one of them (see Overfalls (LV-118) History, below).

Between 1820 and 1952, lightship technology naturally evolved. Wooden ships gave way to iron and steel hulls; iron/steel hull construction evolved from riveted hull plates to welded hull plates; wind propulsion (sails)—many earlier ships were towed into position—yielded to steam (1891), diesel, and diesel-electric power; oil- and kerosene-fueled lamps were replaced by electric-powered lamps for the first time in 1936. Reflectors and Fresnel lenses extended the light’s reach. Fog signals comprised bells, cannons, steam whistles, sirens, steam-driven foghorns and foghorns driven by compressed air. Weighing anchor went from hand-cranked capstans to steam- and compressed-air powered windlasses. Radio beacons and radiotelephone technology came along in the 1920s and 1930s. Surface radar was added to six lightships in World War II.

No two lightships were exactly alike; some had one lighted mast, some had two. The sizes and deck layouts varied, but in the 20<sup>th</sup> century, they were all recognizable by their red-painted hulls with white station lettering on the port and starboard sides, their white superstructures, their mustard-yellow masts, stacks, air vents, etc. Because they were stationed on average about 25-30 miles from shore (the Nantucket was stationed as far as 50 to 80 miles off shore), they were normally seen only by anyone who was sailing near them or flying over them.

Starting in 1967, the era of manned US lightships began to wind down, as decommissioned lightships were gradually replaced by large buoys or “Texas towers” with automated lights, fog signals, and radio beacons. Eventually the Global Positioning System (GPS) (employing satellites) came along to enhance navigation. The last operating US lightships, “Nantucket I” (WLV-612) and “Nantucket II” (WLV-613), were sister ships that alternately served together on the Nantucket Shoals, and together weighed anchor at that station for the last time in 1983. While officially designated as a lightship for 2 years after that, the WLV-612’s mission was limited to non-lightship functions, and it was finally decommissioned in 1985, ending the lightship era after 165 years.

As a rule, when lightships were decommissioned, they were stripped of their equipment and sold or scrapped. Nevertheless, at least 15 lightships (the oldest dating to 1902) still survive. The following is a list of 17 “survivors” and their dispositions:

- **LV-75** (built 1902), sold in 1939 and converted into the power lighter *St. Clair* in New York harbor (homeport, Staten Island); greatly modified, including new engines and an additional mast.
- **LV-79** (“Barnegat”, built 1904), a museum ship being restored by the Philadelphia Ship Preservation Guild (as of 1989); last known to be docked in Camden, NJ. As of 2019, photos show that the ship is in very bad shape.
- **LV-84** (built 1907), also known as “Relief”, substantially modified for use as display vessel for Henry Lundeborg School of Seamanship; sold for conversion to a restaurant in Brooklyn, NY. As of 1989, there were plans to restore it to display in Jacksonville, FL.
- **LV-85** (built 1907), decommissioned in 1962, sold to Oceanology International and converted to research vessel “Recoverer”, home port in Chicago.
- **LV-87** (built 1907), also known as “Ambrose”, museum vessel at South Street Seaport, New York City; designated a National Historical Landmark April 11, 1989.
- **LV-101** (built 1916 in Wilmington, DE, by Pusey and Jones Corporation), first placed on Overfalls Station, now known as “Portsmouth”, dry-berthed in Portsmouth, VA, as part of Lightship Portsmouth Museum. Declared National Historic Landmark in 1989.
- **LV-102** (built 1916 in Wilmington, DE, by Pusey and Jones Corporation), known as “Brenton” (near Narraganset Bay), sold in 1965 and converted to crab processing ship, listed as fishing vessel *Big Dipper* in 1970 and as *Jamie Lynn* in 1978. **Present status unknown.**
- **LV-103** (built 1920), also known as “Huron”, dry-berth exhibit owned by City of Port Huron, MI.
- **LV-112** (WAL-534) (built 1936 in Wilmington, DE, by Pusey And Jones Corporation, following the sinking of the LV-117 (“Nantucket”) by *RMS Olympic* in 1934), also known as “Nantucket”, owned and operated by Nantucket Lightship Preservation, Inc. Declared a National Historical Landmark in 1989, berthed in Boston harbor since 2010. There had been negotiations to move the ship to Portland, ME.
- **LV-116** (built 1930), known as “Chesapeake” is a floating museum in Baltimore’s Inner Harbor.
- **LV-118** (WAL-539/WLV539), known as “Overfalls”, though it never served on the Overfalls Station (see Overfalls (LV-118) History below), is a floating museum in Lewes, DE, operated by the Overfalls Foundation. Declared a National Historic Landmark in 2011.
- **WLV-189** (built 1946) last served as the “Boston”, before it was decommissioned in 1974. She was a display ship at Atlantic City, NJ, until 1994, when she was **sunk as an artificial reef**.
- **WLV-196** (built 1946), known as “Umatilla”, last served on Umatilla Reef (WA). Sold in 1971 to private party, used as research ship, last reported as a barracks ship for logging crews.

- **WLV-604** (built 1950), known as “Columbia” is a floating museum, part of the Columbia River Maritime Museum, Astoria, OR. Still capable of moving on its own power. Declared a National Historic Landmark in 1989.
- **WLV-605** (built 1950), last known as “Relief” (and the last ship to serve on the Overfalls Station), is a floating museum in Oakland, CA.
- **WLV-612** (built 1950), last known as the “Nantucket I”; the last commissioned US lightship. Its rather unique post-lightship history is summarized as follows:
  - Removed from the Nantucket Station, which was closed in 1983.
  - Subsequently used in 1983 as radar and security-communications platform off Kennebunkport, ME, when the Bush family was in residence; then Vice President Bush was on board the WLV-612 when word came that Russia had shot down Korean Airlines flight 007 over the Sea of Japan.
  - Fall 1984, WLV-612 served off the southern coast as a fueling station for law-enforcement and drug-interdiction vessels. Finally decommissioned in Boston in March 1985.
  - Sold to Boston Educational Exchange later that year, but returned to General Services Administration because of financial difficulties.
  - Purchased by State of Massachusetts in 1987 for \$1500, intended for use as a floating museum, but funding was lacking. From 1987 to 1992, berthed at Quincy, MA, where volunteers (Friends of Lightship Nantucket) spent many hours restoring the ship (including twin engines) for opening it to the public in Boston Harbor.
  - Much to the chagrin of the “Friends” of WLV-612, the ship was declared surplus by the State of Massachusetts in 1999 and sold on eBay in 2000 for \$126,000 to William Golden, an environmental attorney and former Massachusetts state senator.
  - Golden hired 11 master craftsmen in New Bedford, who spent 3 years and millions of dollars to convert WLV-612 to a luxury charter boat, with a master suite, 4 guest suites, hand-carved mahogany and oak beds, 6 bathrooms, granite countertops, a completely refitted galley, dining room with maple table seating 12, entertainment/game room, library/den, office, American cherry planks on the top deck, and new engines.
  - The ship was chartered out of Nantucket Harbor and Boston Harbor. Golden put the ship up for sale in 2006, asking \$7.6 million, but there were no takers. Since that time, the ship has variously been available for charter in Greenwich, CT; Manhattan (Hudson River); Jamestown, RI; and Brooklyn, NY. In 2016, the ship was again put up for sale, with an asking price of \$5.2 million.
  - In August 2009, the ship was anchored off the Kennedy compound at Hyannis Port, MA, and flashed its light from dusk to dawn to honor the late Senator Ted Kennedy.

- **WLV-613** (built 1952), known as “Nantucket II”, the last operating lightship on Nantucket Shoals, the final station to be closed in 1983. Alternating with its sister ship (WLV-612) for 3-week stints, Nantucket II relieved Nantucket I at 2:30a, December 20, 1983. At 8:00a that same day, Nantucket II was relieved by a navigational buoy. Decommissioned in 1984. Like the Nantucket I, the Nantucket II was cared for by “Friends of the Lightship” in Quincy, MA. However, the Friends were short of funds, so the ship was purchased by Jack Baker in 1998; Baker personally funded a million-dollar-plus overhaul. The ship was subsequently sold to William Golden in 2014 (see WLV-612, above). Golden was planning to use WLV-613 as a floating restaurant and museum in New York City.

All lightships over the years performed a dangerous mission and constituted a proud segment of America’s maritime heritage. There are 237 official reports of lightships being blown adrift or dragged off station by severe weather or moving ice—in one instance, the lightship drifted 80 miles from its station after separating from its anchor. Five of those ships were lost. There are also 150 documented collisions between lightships and the larger ships they were meant to protect, resulting in the sinking of five lightships. The worst collision occurred in 1934, when the *RMS Olympic* collided in bad weather with the Nantucket lightship (LV-117), resulting in the loss of the lightship, which still lies in 30 fathoms of water off the coast of Massachusetts, and seven lives. The story of the Nantucket-*RMS Olympic* collision is explored further in a separate section below (The Sinking of LV-117).

## OVERFALLS (LV-118) HISTORY

LV-118 was built at the Rice Brothers Shipyard in East Boothbay, Maine. The keel was laid in May 1937; the ship was launched in February 1938 and commissioned on September 11, 1938. She can claim the following significant “lasts”:

- the last lightship commissioned by the US Lighthouse Service (which was absorbed by the US Coast Guard in 1939); as such, the last lightship to be assigned an “LV” designation
- the last lightship built before World War II; only six more lightships were subsequently commissioned by the US Coast Guard between 1946 and 1952
- the last lightship built with a riveted steel hull; later lightships had welded steel hulls
- the last lightship with direct-current (DC) electrical systems

She was officially LV-118 until 1947, when the Coast Guard (which had absorbed the USLHS in July 1939) re-designated her as WAL-539. In 1965, the Coast Guard again changed its designations, so the WAL-539 then became the WLV-539. The signal flags flown on the starboard side of the ship spell out the LV-118 designation. For the sake of simplicity and convenience, this summary will continue to refer to her as “LV-118” or “Overfalls”.

LV-118 served on the following stations, taking each time the name of the respective station:

- CORNFIELD POINT (south of Old Saybrook, CT, providing a beacon for shipping entering Long Island Sound), where she took up her position on April 25, 1939. During WWII, most east-coast lightships were removed from service to avoid the danger of German U-boats. However, the CORNFIELD (i.e., LV-118 during that time) was one of six lightships between Philadelphia and Boston that were critical to war-time navigation of supply and troop ships moving between the United States and Europe. Those six lightships were fitted with surface radar and remained in service for the duration of the war,<sup>21</sup> despite the fact that they were not armed. LV-118 operated there until 1957, when she was reassigned and moved to the CROSS RIP station.
- CROSS RIP (originally named Tuckerman Shoal, but the station was later moved westward to Cross Rip Shoal, about 7.5 miles from Martha’s Vineyard, MA). After a relatively short stay (1957-1962), LV-118 was moved to Boston.
- BOSTON (approach to Boston Harbor). A former crewman of LV-118 reported that the ship suffered damage in a severe storm in 1970, though researchers have since been unable to find any concrete evidence of that event. Before the ship was decommissioned in 1972, there were five ribs showing damage on either side of the keel

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<sup>21</sup> Despite the fact that these six lightships were not armed and vulnerable to attack, none of them were attacked during WWII. Two possible reasons come to mind. One is that U-boats carried only a limited number of torpedoes, which were expensive and required a long voyage from Germany, and lightships were relatively small prey compared with US military and cargo ships carrying troops and materiel. Secondly, U-boats could make use of the lightships as aids to their own navigation near the US coastline.

forward, though that could have been caused by rust and corrosion. In any event, by 1972, LV-118's main engine was pretty much worn out, and there were more lightships around than stations on which to place them, so LV-118 was taken out of service and moved to the Coast Guard's Curtis Bay facility in south Baltimore, MD. She was donated to the Lewes Historical Society in 1973.

So, why the name "OVERFALLS" for LV-118? In fact, there was an Overfalls Station (between Cape Henlopen, DE, and Cape May, NJ, at the mouth of the Delaware Bay), which operated from 1898 to 1960, at which time the station was closed, and the last "Overfalls" lightship was replaced by a navigational buoy. However, LV-118 never served on that station.

Four lightships did serve the Overfalls station, the first two of which (LV-46 and LV-69) have been scrapped. The third, LV-101, which served there during 1926-1951, is now dry-berthed (in a bed of concrete) in Portsmouth, VA, as part of a lightship museum; she now carries the name "PORTSMOUTH", though there was never a Portsmouth station. The fourth and last official Overfalls lightship was WAL-605/WLV-605, which was removed from the station in 1960 and reassigned to the BLUNTS REEF station off the California coast until 1969, and then assigned as a RELIEF lightship on the west coast until she was decommissioned in 1976. Since 2009, WAL605/WLV-605 has been a floating museum in Oakland, CA; she still carries the name "RELIEF".

In short, the Overfalls Station had been closed since 1960, 13 years before LV-118 was acquired from the Coast Guard by the Lewes Historical Society (LHS). When the ship arrived in Lewes in 1973, the LHS named her Overfalls in honor of the station closest to Lewes.

Between 1973 and 1999, the ship lay with an ungainly tilt in a muddy ditch on the Lewes-Rehoboth Canal in Lewes, with only minimal maintenance. Despite her neglected state, she was listed on the National Register of Historic Places in 1988, but because of her neglected state she was precluded from consideration as a National Historic Landmark the following year. By 1999, LV-118's condition had reached a crisis point, and the LHS began to look for a responsible organization that might ensure the ship's preservation. The answer came from within the LHS itself, when a group of interested volunteers formed as the "Friends of the Lightship Overfalls." The "Friends" aimed to develop and implement a ten-year plan to restore the ship and embarked on building a fiscally responsible organization to support that restoration and sustain her long-term preservation. In 2001, the "Friends" formally organized as a 501(c)(3) (non-profit) organization, the Overfalls Maritime Museum Foundation (now commonly known as the Overfalls Foundation), which then took full possession and ownership of the ship.

Between 1999 and 2008, a group of dedicated volunteers (known as the "Dirty Hands Gang"<sup>22</sup>)—supplemented by professional and beneficent contractors--scrapped, painted,

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<sup>22</sup> The Dirty Hands Gang continues to maintain the ship on a regular basis.

cleaned, rewired—in short, cleaned up the entire ship, from the hull (above the waterline) to the top of the light, as well as all three decks of the interior of the ship. The last remaining task was to rehabilitate the hull below the waterline. This entailed towing the ship in 2008 to the Colonna shipyard in Norfolk, VA, where new hull plates were installed over the old corroded ones. In May 2009, the ship was towed back to Lewes and into a newly-dredged slip, which was eventually shored up with steel bulkheads. This project is detailed in an Overfalls publication called “The Big Lift”.

On June 14, 2011, LV-118 was designated a National Historic Landmark by the US National Park Service, US Department of the Interior. This designation was commemorated with a bronze plaque, which now hangs in the crew’s dining area. After a public presentation ceremony by local dignitaries, it was discovered that there was a typographical error on the plaque, and a corrected plaque was subsequently provided by the Park Service. The corrected plaque is now proudly displayed on the plaza wall outside the ship’s store. The original plaque was retained on the ship and is presented as a challenge to visitors to find the typographical error.

In late October 2012, Hurricane Sandy made its way from the Caribbean north along the Atlantic Coast, eventually bringing high winds, heavy rains, and higher-than-normal tides to the Lewes area as “Superstorm Sandy”). LV-118’s lines held fast to her bollards throughout the storm, the ship bobbing like a cork in her berth on the Lewes-Rehoboth Canal, but remaining unscathed. After the storm had cleared, it became apparent that mud and silt had become roiled up in the Delaware Bay and was carried by incoming tides into the canal. Slowly, but surely, the silt settled around the ship in her berth, so that by mid-2016, she was lying once again at an awkward tilt in the mud at low tide. Arrangements were begun to have her towed out of her berth to the Dorchester Shipyard in New Jersey for an exterior makeover, comprising repainting and hull cleaning and maintenance, including replacing sacrificial (anti-corrosion) zincs on her barnacled bottom. While she was in the shipyard, her berth would be dredged before her return. However, there were unforeseen delays in lining up permits from the Coast Guard and the US Army Corps of Engineers, scheduling the dredger, and scheduling the tow boat, so the ship remained in Lewes over the winter of 2016/2017.

In May 2017, the ship was opened for another season of tours, and work continued behind the scenes to have her towed to the Dorchester Shipyard on the Maurice River, at Bricksboro, NJ. Further delays ensued, but finally, on November 29, 2017, after a DENREC dredge had cleared the mouth of the ship’s berth, the tow boat, *Northstar 10* (based in Cape May, NJ) began its first attempt to pull LV-118 off her muddy bed at around 3:30p, as the afternoon high tide began to rise.

It was a tense 45 minutes, as the powerful *Northstar 10* needed to make several roaring attempts to pull LV-118 out of the mud, while a crowd of camera-wielding onlookers and the hardy five-man Overfalls crew “captained” by Don Gansauer (head of the Dirty Hands Gang) began to wonder whether she was going to come loose. A little after 4:00pm, the ship finally began to break free from her berth, as the crowd cheered and waved with relief, dogs barked,

and cameras clicked. Towboat *US Indian River* assisted in positioning the ship in the Canal and keeping her stern steady as the ship, with all flags flying, was towed up the Canal to Roosevelt Inlet, where another crowd of well-wishers waved and took photos. *Northstar 10* and LV-118 headed out into the Delaware Bay as a chilly night began to fall. The trip across the Delaware Bay was deliberately slowed and timed for arrival at the mouth of the Maurice River at sunrise, to allow easier navigation up the winding river to the shipyard.

Soon after the ship's arrival, media blasting began as she lay dockside, and the mast and other similarly painted fixtures on the top deck were given a fresh coat of paint. Before long, LV-118 was put on blocks in dry dock for cleaning her hull and media blasting the rest of her exterior. She was given an all-over coat of grey primer, which made her look like she was being mothballed, though the effect was actually quite attractive. She was subsequently given her finishing coats of exterior paint, before being placed once again in the water dockside for painting the OVERFALLS lettering on her port and starboard sides.

The ship was towed back to Lewes on April 26, 2018. The trip home took about 15 hours, zig-zagging at a snail's pace across the Delaware Bay, because the crew had to wait for high tide in the Lewes-Rehoboth Canal, and one of the support boats was called away for an emergency call while the ship and *Northstar 10* waited an extra hour at the mouth of Roosevelt Inlet. Around 9:30p that night, a crowd of patient, diehard fans welcomed LV-118 home, and the crew and volunteers secured her to her bollards and raised her gangway. In less than three weeks, she was ready to receive her first special group tour; the official tour season began, as usual, over the Memorial Day weekend.

## THE SINKING OF LV-117

Of the more than 150 reported collisions between lightships and larger ships they were in position to protect, the unfortunate encounter between LV-117 (the “Nantucket”) and the *RMS (“Royal Mail Ship”) Olympic* on May 14, 1934, was the worst, with the fatalities of seven of the LV-117’s eleven-man crew.

The *Olympic* was the first of three “Olympic-class” steamships built and operated by the White Star Line; her maiden voyage was in June 1911. The second was the *RMS Titanic*, which was launched soon after the *Olympic*, had the same dimensions and was only slighter heavier—seen side by side, *Olympic* and *Titanic* were almost identical twins. The third member of the class, *HMHS (“His Majesty’s Hospital Ship”) Britannic*, was launched in 1915. *Titanic* became the stuff of books, folksongs, movies, and general lore when she hit an iceberg on her maiden voyage and sank with the loss of at least 1,500 lives.<sup>23</sup> *Britannic* was launched as a hospital ship during WWI and in November 1916 she hit an underwater explosive mine in the Aegean Sea and sank, with the loss of 30 lives. *Olympic*, however, continued to operate between New York and Europe until 1935.

In early April 1934, a crewman on LV-117 took a photo from her icy deck of a “close call” encounter with *Olympic* as she steamed by in foggy weather on her way to New York City. Nantucket’s radio man, John Parry, was quoted by friends at the time as saying (prophetically), “Someday we are just going to get it head on, and that will be the finish. One of those big liners will just ride through us.”

In the early hours of May 14, 1934, *Olympic* was homing in on Nantucket’s radio beacon, approaching at about 20 knots, when thick fog forced her to reduce speed to 12 knots. *Olympic* was unable to reach LV-117 by radio, but LV-117’s fog signals could be heard. When *Olympic*’s lookout finally spotted LV-117, it was too late to avoid collision. *Olympic* was able to slow to just 3 knots, but her 52,000-ton weight was too much for the 630-ton Nantucket. Though passengers on *Olympic* hardly felt it, the collision was devastating for the Nantucket’s crew.

With about 500-foot visibility, the lightship crew had time to don their life jackets and await the inevitable. After the collision, *Olympic* dropped three rescue boats into the water. They rescued seven of the Nantucket crew and brought them on board the *Olympic*. Three of the survivors died in *Olympic*’s hospital before the ship reached New York later that day.

The White Star Line agreed to pay for the construction of a new Nantucket lightship (LV-112) as reparation for the accident. The shipbuilder was Pusey and Jones of Wilmington, DE. LV-112 was designed with separate water-tight compartments separating the outer hull from a water-tight inner hull. Other safety features were introduced to make LV-112 less likely to sink were it

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<sup>23</sup> The actual number of fatalities remains unclear, because of confusion in the original passenger manifests. In any event, less than 1/3 of passengers and crew survived.

to be hit. The US Lighthouse Service's next commissioned lightship would be our own LV-118, which also incorporated the new technology of the LV-112.

**Postscript.** The *Boston Herald* sensationalized the May 1934 collision with artists' renderings of *Olympic* cutting LV-117 in half. This was not the case, however, although the lightship was heavily damaged and sank quickly. LV-117 lay about 200 feet deep until she was discovered by a fishing boat in the 1970s. However, the wreck was not definitively identified as LV-117 until July 1998. She still lies on her port side, relatively intact, with both her masts lying nearby.

*RMS Olympic* was taken out of service in 1935 and dismantled during 1935-1937.

## THE FIRST U.S. SHIP-TO-SHORE WIRELESS TRANSMISSION

The date was August 23, 1899, the ship was US Lightship LV-70 (San Francisco). The first ship-to-shore wireless in U.S. history was sent from LV-70 from its location about 9 miles from its assigned station to a receiving station on the San Francisco headland at the famed Cliff House. The Cliff House had been built by a real estate mogul in 1863 as a restaurant, which before the end of the 19<sup>th</sup> century expanded to boast a veranda, card room, ladies' parlor, bath house and dance floor. It burned down in 1894 but was rebuilt and reopened in 1896. During the years 1863-1899, the Cliff House's visitors included Samuel Clemens (Mark Twain), the last king of Hawai'i Kalakaua, Presidents Ulysses S. Grant and Rutherford B. Hayes, and a 4500-lb sea lion named "Ben Butler" who occupied the Seal Rocks just west of the Cliff House for 40 years. The Cliff House has a storied history that continues to the present day.

The message sent by the LV-70 on that August day in 1899 read simply as follows: "Sherman is sighted". The US troopship *Sherman* was returning a San Francisco regiment from the battlefields of the Spanish-American War. A local newspaper, the *San Francisco Call*, wanted to scoop the competition when it set up a transmitter on the LV-70 and sent word to the Cliff House receiver when the *Sherman* was passing by on its way into port. This marked the first use anywhere outside of England of ship-to-shore wireless communication. This event was re-enacted one hundred years later, on August 23, 1999.

The British patent for wireless had been obtained by one Guglielmo Marconi, who was in heated competition with Heinrich Hertz, Alexander Popov, and Nicola Tesla in developing wireless communications that we now know as radio. In the early 20<sup>th</sup> century, radio communications at sea quickly evolved into an indispensable aid to mariners, who could now communicate with each other at sea and with shore-based stations.

The Japanese navy profited from the technology by tracking the Russian fleet during the Battle of Tsushima in 1905, a key turning point in the Russo-Japanese War. The failure to use the technology played a major and disastrous role in 1912 when the lone radio operator on the *SS Californian* switched off his set for the night before distress signals were sent out from the *RMS Titanic*, which was sinking only 20 miles away.

## VIGNETTES OF LIFE ON A LIGHTSHIP

Life aboard any ship can be challenging, but aboard a small ship that didn't go anywhere, it could be even more challenging. The following are bits of information, the sources of which are not specifically cited, but which ring true to many who served on lightships over the years.<sup>24</sup>

- Most tours of duty lasted 18 months to 2 years, but some crew served multiple tours.
- Most crew members viewed lightship duty as boring and monotonous, even when the sea was behaving itself. In good weather, off-duty crew could relax in the day room, fish or swim off the side of the ship, or take sun on deck. In bad weather, the day room was a more confining place for passing the time. Day room activities might include card games, letter writing, even basket weaving; reading or napping could be done in one's bunk. At least one artistically-inclined crewman drew a near-life-size picture of a female form on the supporting canvas on the bottom of the bunk above his own. That canvas has been archived in Lewes, DE, but, given its graphic nature, is not considered by some as being suitable for showing to younger members of tour groups.
- A television was on board LV-118 at a time when cable or satellite television did not exist. Since the ship lay some distance from land, the television's reception was probably questionable.
- Having a week off for every two weeks on board was seen as a benefit many working stiffs did not have.
- Crew morale was generally good, but could plunge when fog settled in and the fog horn made its presence known. Some crew could sleep through the blaring fog horn, but most could not. Those who could would sometimes find that, once the fog horn went silent again, **then** they could not sleep. Permanent hearing damage was not unusual.
- Crew members' ages generally ranged from 17 to 50; officers and senior enlisted men were usually in the older age brackets.
- Saluting was often not *de rigueur* on board, except when boarding or during formal inspections. Uniforms were worn, but military discipline generally was loosely applied.
- Seasickness was not a widespread problem, but some did suffer during rough weather or for a few days after boarding ship following time off on shore.
- At least one cook aboard LV-118 was reported to have weighed 300+ pounds. The crew apparently had no complaints about the meals he prepared.
- One former crewman who served on LV-118 on the CROSS RIP station visited LV-118 to tour a few years ago. His main task on board had been to stand watch in the auxiliary engine room (6 hours on, 6 hours off, for two weeks at a time). Though he could stand the heat<sup>25</sup> and noise, he could not tolerate the boredom. He was experienced enough to know if one of the generators or compressors was malfunctioning, just by their

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<sup>24</sup> If you have any other vignettes to add to this list, please contact the Overfalls Board so that they can be included in this manual.

<sup>25</sup> Temperatures climbed to over 100 degrees F.

sound, so he alleviated his boredom by reading. His “captain” came down the ladder one day, found him reading and reprimanded him for not giving full time and attention to his job—the upshot was that there was to be no more reading during work hours. After his best “Aye, aye, Captain”, the crewman—knowing that the hatch at the top of the ladder was generally kept closed—the noise and heat bothered the other crewmen—tied a string to the bottom of the hatch, extended it behind the ladder and wrapped it around his finger while he read in the engine room. If the hatch above opened, he simply slipped the string off his finger and looked busy for anyone descending the ladder. In this way, he finished his tour of duty on LV-118 with no more trouble from the captain, and no more problem reading his favorite novels. He encountered that same commander some years later in an unofficial capacity, at which time he confessed his amusing reading ruse, but the captain reportedly had no sense of humor about the matter.

- LV-118 had at least three drinking fountains on board, the most evident being under the main ladder in the day room. According to the visitor noted in the previous vignette, the drinking fountain was called a “scuttlebutt” during his years on LV-118. He explained that, in the days of multi-mast wooden sailing ships, fresh water was stored on board in wooden casks called “butts”. When the cask was tapped, it was called “scuttling” the butt. Over time, the scuttled butt became known as a drinking fountain, around which, in more recent times, office employees would gather to exchange gossip and information. The information itself subsequently became known as scuttlebutt.
- Funding for building LV-118 reportedly came from a legal settlement in the 1930s. A wooden lightship had been assigned to the CORNFIELD POINT station, but the tow line of a tugboat pulling a barge had cut the wooden ship in half. The legal settlement with the tow boat owner resulted in an award of the \$223,900 needed to build the replacement lightship for CORNFIELD POINT, i.e., our own LV-118.
- The lightship Boston used to get Sunday visits from a local yachtsman who would throw the Sunday newspaper on the lightship’s deck for the crew. The yachtsman reportedly had a provision in his will for a \$10,000 donation to continue the practice after he died.
- One lightship crewman in the 1800s was interviewed about his life on board. To paraphrase, he said that, if it would not bring shame on his family, he would rather go to prison than get back on board a lightship.
- Somewhere in a self-published source on lightships, the following poem was attributed to one “C. Tucker”:

“When a sailor gets to thinking he is one of the best,  
Let him ship out on a lightship and take the acid test.  
If he still feels like bragging, I don’t think that all his tales  
Will be of deep sea sailing, but of the ship that never sails.”