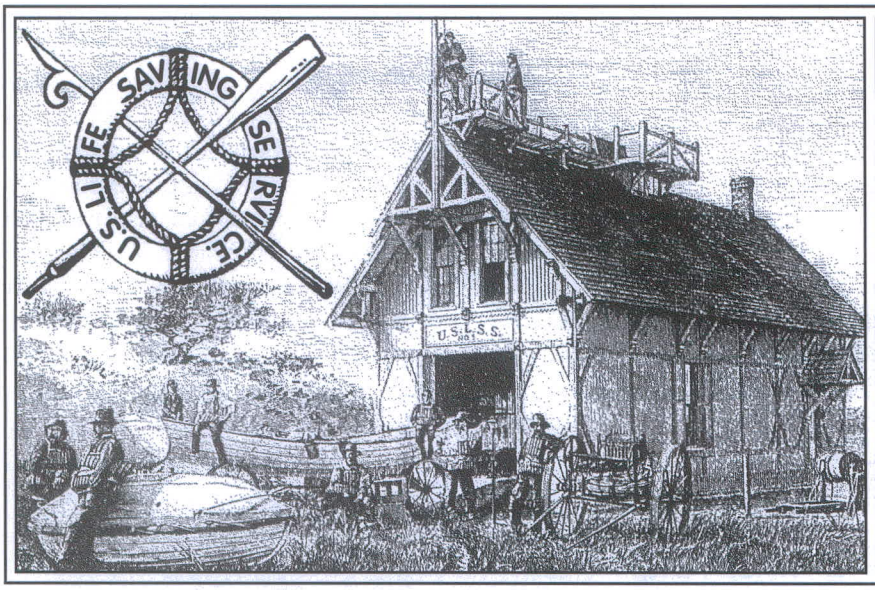
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OUR SISTER SERVICE

The U. S. Life Saving Service
1878-1915

The Breeches Buoy... Seat of Salvation

By Haynes R. Mahoney

When the 473-Foot Maltese freighter *Eldia*, driven helplessly by the 90-mile-per-hour winds and 12-foot waves, stranded on Nauset Beach, Cape Cod, MA in the late afternoon of March 29, 1984, Coast Guardsmen from nearby Orleans were already planning rescue operations.

Hunched against icy spray, the men on the beach feared battering seas would roll the vessel over, throwing its 23-man crew into towering breakers. Concerned that the Coast Guard helicopter would not get through and knowing that no boat could be launched in that storm, they found themselves considering an obsolete life-saving contraption - the breeches buoy.

Not that the Coast Guard any longer had the equipment once standard at every station. But they figured an M-1 carbine could be used to fire a lightweight line across the vessel, which would enable the crew to haul out block and tackle. With lines secured to the ship and to a truck on the beach, they could run a bosun's chair back and forth to take off the crew.

Fortunately, during their calculations, the helicopter beat its way to *Eldia*. In three perilous trips, it lifted captain and crew from the battered vessel and deposited them safely onto the beach parking lot.

The helicopter crew earned Air Medals for their efforts in the hurricane-force winds, and confirmed once more the efficacy of the Coast Guard helicopters. But before it is lost to memory, it is worth recalling that older rescue system which the Nauset Beach life savers were prepared to jury rig that darkening afternoon.

Old reliables

For 100 years, until the helicopter came into use, the breeches buoy and its heavier mate, the "life car," had been a main instrument of salvation on American coasts, rescuing thousands of seafarers from stranded ships.

Consider, for example, the two-masted Gloucester fishing schooner *Elsie M. Smith*, vainly tacking against a northerly gale and snow squalls on the night of February 13, 1902. Captain Charles L. Nickerson was unaware of the Nauset shore until his ship slammed across the outer shoal and was soon pounding on the inner bar, 150 yards off the same beach that claimed *Eldia* 80 years later. The captain ordered his men into the rigging to escape heavy seas sweeping the stricken vessel. Five of them panicked, however, and tried to get ashore in fishing dories which quickly overturned.

At 9:20 P.M. at the watch house on shore, Surfman Eldridge from the Old Harbor Life Saving Station to the south, had just exchanged checks with Surfman Young from the Orleans station to the north, when they glimpsed the light of a lantern through the snow. Cranking the phones to alert their respective stations that a ship was on the bar, they raced for the beach to fire a Coston light, signaling that help was coming.

Around 10:00 P.M., keeper Hezekiah Doane and five men from Old Harbor Station arrived, gasping from the strain of hauling their beach cart loaded with gear three miles through the soft sand against wind and snow. In the faint light of their lanterns, they swung into action with precision born of endless drills, joined shortly by the Orleans Station crew.

Keeper Doane fired his Lyle gun, a small brass cannon, expertly aimed to windward so that the projectile carrying the light "shot line" fell across the vessel's headstays. Soon unseen hands on the ship were hauling out the whip line with its tail block and talley board, bearing instructions to secure the

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Breeches Buoy shown in a nineteenth century drawing.

block to a mast. The 3-inch hawser quickly followed and "after what seemed a long time we got the word 'all fast' which made every man ashore shout for joy because everything was in our own hands then," wrote Doane in his "Wreck Report."

Secured to the sand anchor and supported with the wooden crotch, the heavy rope became a tenuous bridge to the heaving schooner.

Suspended from a running block, that crude seat of salvation, a pair of canvas breeches sewed into a cork ring, was run out to the vessel. Shortly, surfmen were lunging against the tremendous drag on the whip line as they hauled a man, dangling and twisting to leeward, sometimes swung into the air, sometimes buried in a wave, until a surfman could dash into the breakers to drag the gasping fisherman to safety.

Back and forth went the breeches buoy until 13 men were taken off the vessel. From the overturned dories, three others got ashore, but two drowned, who would have lived had they obeyed the life savers' maxim — stay with the ship until help arrives.

It was a classic rescue with this time-honored system of lines, pulleys, small cannon, and canvas breeches, operated in darkness under formidable obstacles.

At Quoddy Head, ME, in December 1882, the station keeper and crew had to haul their beach cart a mile over rocks and gullies before reaching the beach at daybreak where a bark was pounding offshore. Their first shot dropped the line right among the frightened mariners, and they soon rigged the breeches buoy, taking off 14 men. The captain, however, refused to leave, wanting to save his valuable nautical instruments, until the keeper went out in the breeches buoy and persuaded the captain to save his own neck.

In a storm in September 1888, the Lewes (DE) Station crew fired their gun from the upper window of a fish house and landed the crew of a distressed craft in the loft with a breeches buoy.

In three days' work on the Delaware coast in September 1889, life-saving crews from the Lewes, Henlopen, and Rehoboth Beach stations assisted 22 vessels and rescued 39 persons by boat and 155 by breeches buoy without losing a single life.

During a storm on Lake Ontario in 1879, the crew of a stranded schooner had hauled out the whip line, but their captain was stymied by the French instructions on the tally board. Not thinking to turn the board over to English instructions on the reverse side, he threw it away in disgust. A surfman on the beach finally hauled himself through the seas hand over hand along the whip line, until he gained the heaving deck and took charge of operations. All were landed safely.

Variations on a theme

Along with the breeches buoy, the Life Saving Services also developed the "life car," a small covered boat, which could be suspended from running blocks on the hawser, and used to haul in four to six persons, especially women and children who might have been thrown from a buoy. In the wreck of the immigrant ship *Ayshire* during a snowstorm off Squan Beach, NJ in 1850, rescuers brought in 201 persons (with only one fatality) with repeated trips of the life car.



A life car, capable of hoilding several people, often used when rescuing women and children. Photo courtesy of Rusty Nelson.

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Above – The breeches buoy in operation rescuing the crew of the freighter *Oakey Alexander* off Cape Elizabeth, ME in March, 1947. The ship, loaded with coal, lost part of her bow in a severe storm and was run up on the rocky shore by the captain.

Below – A 1910 view at Reboboth Beach. From the casual atmosphere of the bystanders, it would appear that this was a drill or demonstration. Photo courtesy of Robert J. Lewis



Skill and bravery in the use of life saving systems were a product of America's maritime past, when much of the nation's goods and passengers moved by ship along its coasts and rivers. Well into the twentieth century, the constant procession of sail and stream was a common sight on American shores. To deal with frequent disasters, the U. S. Life Saving Service (USLSS) matured from voluntary and rudimentary rescue organizations in 1871. By 1880, the service operated about 200 stations along the oceans, Gulf of Mexico and Great Lakes, usually with a keeper and six surfmen manning each station. On the most dangerous stretches, such as Cape Hatteras, the New Jersey Coast, and Cape Cod, the stations were a few miles apart, with surfmen patrolling the beaches and exchanging metal "checks" at watch houses halfway between.

Each station was equipped with a surfboat a 22- or 24-foot lightweight but sturdy double ender, mounted on a cart and always ready for instant use. But often the boat could not be launched against powerful breakers, and breeches-buoy apparatus was the only hope. When reporting a wreck, the surfman would indicate what kind of gear was needed. The improbable shore-to-ship rig evolved from a British artilleryman's successful firing of a projectile carrying a line from a cannon to a stranded ship in 1810. In 1871, an American army ordnance specialist Captain David A. Lyle, developed a brass mortar, weighing 185 pounds, to fire an elongated projectile with a light line attached. This was used by the USLSS and its successor organization. The breeches buoy system was phased out with the arrival of helicopters after World War II.

Although the gun had a maximum range of 700 yards, practical operations were limited to 200 yards. Beyond that, benumbed crews

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could hardly haul the lines, nor could victims survive the long trip shoreward.

But within its limits, the apparatus was effective, due in part to the constant drilling of crews. Every Thursday, was breeches-buoy drill day at each station, when the beach cart was hauled to a nearby site where a "wreck pole," a spar with a yard arm, had been erected on the beach to represent a wrecked ship. The keeper and each surfman had assigned duties in rigging the gear within the five minutes prescribed by USLSS regulations. Such precision was essential in stormy darkness when light barely flickered through the sand-blasted lenses of lanterns.

Lyle's smoothbore mortar fired a cylindrical shot, with a shank protruding from the gun muzzle to which the shot line was attached. The light bleached linen rope was coiled layer above layer around pins in a faking box. When the pins were pulled, the line lay loose, ready to pay out smoothly behind the flying projectile. Various sizes of powder charges and line were used depending on conditions.

Calculating wind and distance, the keeper aimed his gun to lay the shot line across the rigging of a vessel, where the crew could reach it.

When he felt the tug on the shot line from the stricken vessel, he ordered the whip line, a heavier rope with a tail block, tied to the shot line and signaled to the ship to haul away. A tally board, attached to the block, instructed the stranded seamen (in English and French) to make the tail of the block fast to the mast and signal the shore. With this done, the rescuers were now in communication with the ship through the whip, an endless line running through the block. They then hauled out a 3-inch hawser with another tally board with instructions to tie the heavy rope to the mast two feet above the whip line.

Tenacious life line

When done, the rescuers secured the shore end of the hawser to block and tackle attached to a sand anchor of bolted crossed timbers buried in the sand. Now they raised the hawser on crossed uprights, called the crotch, pulled it taut, and attached a running block from which was suspended the breeches buoy. With whip line attached to the running block, they could move the breeches buoy along the hawser back and forth between shore and ship, carrying off one seafarer at a time - women and children first.

In the worst winter storms, when the tenuous apparatus was used in lieu of the surfboat, it often became a nightmare of exhaustion and danger for the surfmen. A strong current frequently ran along shore, tangling lines or sweeping them so far down stream that only the most powerful, heel-digging lunges of the crew could haul in the loaded buoy. Lines became immovably frozen or snapped by wildly swinging masts, requiring rescuers to re-rig the whole apparatus. Ropes became so abrasive with frozen sand that mittens were shredded and hands lacerated. Or when running free, friction of the burdened rope in the wooden sheaves would sometimes set the block afire.

Sometimes, the breeches buoy became useless, and surfman dragged the hapless mariners, tied to the whip, directly through the sea. When they became entangled in the ships flailing rigging or wreckage, a surfman plunged through the breakers with life line around his waist to extricate them.

Despite all the contingencies, however, if the life savers could get a line on the ship, they usually saved its occupants. According to a Coast Guard history, the USLSS aided some 178,700 persons between 1871 and 1914, and only 1,455 lost their lives. While not all of these services involved mortal danger, it is certain that many thousands among them were saved from watery graves with the breeches buoy or life car.

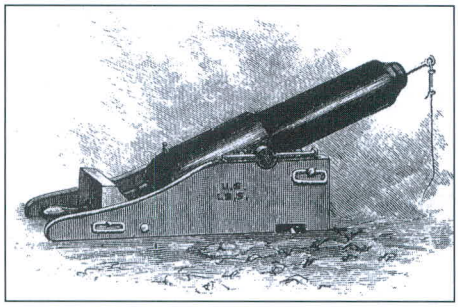
Heroism in retrospect

Today, the memory of this heroic phase of maritime history is kept alive at U.S. national seashores at Race Point (Provincetown), Sandy Hook, Fire Island, and Cape Hatteras, where park rangers and volunteers conduct regular breeches-buoy drills.

The Old Harbor Station, now moved to Race Point on the northern tip of Cape Cod, has been restored to its circa 1900 condition, with life-saving equipment reconstructed to the specifications of gear used by the station crew at the wreck of *Elsie M. Smith.*

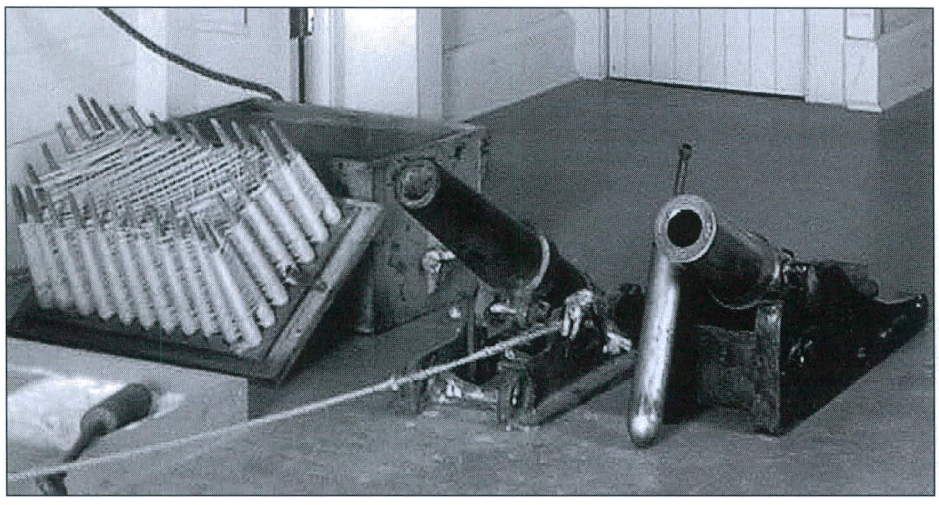
On summer Thursdays, the weekly drill day of the old USLSS, a park service team, clad in the traditional uniforms of keeper Hezekiah Doane and his surfman, churn through soft sand, straining against the tow topes of the beach cart. The Lyle gun barks, the shot line flies, the whip and hawser run out and a volunteer from the fascinated spectators, comes swinging in the breeches buoy from the wreck pole to "safety".

Even the dullest imagination is stirred with images of old heroism. For a few, it revives memory. A lady with misted eyes approached Park Ranger Ken Shea after one of his demonstrations. "Young man, you'll never know what that means to me," she said. "I was rescued by breeches buoy from a wreck off the Carolina coast in 1915."

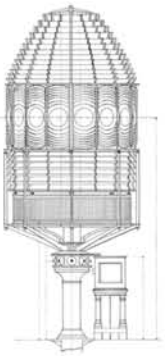


Left – A diagram of the Lyle Gun showing the projectile in the muzzle with a line attached.

Below – Two examples of Lyle guns. Note the elongated projectile leaning on the gun at right. A "faking box" containing the light line to be fired to a ship is shown at left. Photographer unknown.



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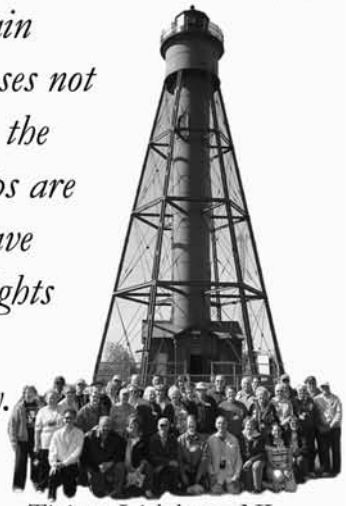
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