

U.S Coast Guard: A Historical Overview

The United States Coast Guard is this nation's oldest and its premier maritime agency. The history of the Service is very complicated because it is the amalgamation of five Federal agencies. These agencies, the Revenue Cutter Service, the Lighthouse Service, the Steamboat Inspection Service, the Bureau of Navigation, and the Lifesaving Service, were originally independent, but had overlapping authorities and were shuffled around the government. They sometimes received new names, and they were all finally united under the umbrella of the Coast Guard. The multiple missions and responsibilities of the modern Service are directly tied to this diverse heritage and the magnificent achievements of all of these agencies.

AIDS TO NAVIGATION

One of the first acts of the young federal government was to provide for aids to navigation. On 7 August 1789, the First Congress federalized the existing lighthouses built by the colonies and appropriated funds for lighthouses, beacons, and buoys. Lighthouses generally reflect the existing technology of the time they were built. Each is also unique because their specific sites required special considerations. The earliest Colonial and Federal lighthouses were built of stone and had walls up to seven feet thick. Later advances allowed even taller structures made of brick. Screw-pile structures, reinforced concrete towers, steel towers, and caisson structures all added to the rich and unique architecture. There have been more than 1,000 lighthouses built and they provided the main guidance to mariners into the main harbors of the United States. For the first five decades there existed little bureaucracy, no tenders, only the lone keepers who kept the lights burning. The administration of the lighthouses bounced from the Treasury Department to the Commerce Department and was transferred to the Coast Guard in 1939.

While many of the lighthouses have changed little since their completion, the light sources have continually evolved to provide mariners with better guidance. Some of the earliest optics were merely multiple-wicked oil lamps with reflectors to concentrate the light. The French physicist Augustin Fresnel revolutionized the optics of lighthouses by inventing a lens with annular rings, reflectors and reflecting prisms that all surrounded a single lamp. These lenses proved to be so effective that many are still in use today providing safe roads for maritime travelers

Sound has also been used to guide ships. In colonial times cannons fired on shore warned ships away from land during fog. Improvements to the sound of gunfire followed. A fog bell first went into use in 1852, followed by a mechanical striking bell in 1869, a fog trumpet in 1872, and an air siren in 1887.

The men and women of the Lighthouse Service were among the most dedicated in government service. They frequently performed their duty in extreme hardship. Abbie Burgess served 38 years in lighthouses. Stationed at the Matinicus Rock and White Head Light Stations in Maine, she dutifully served while simultaneously caring for her family. Keepers were also cited many times for saving lives in shipwreck disasters. Ida Lewis saved 18 lives during her 39 years at the Lime Rock Lighthouse and Marcus Hanna the keeper of the Cape Elizabeth Light is probably the only man in history to have won both the Congressional Medal of Honor and the Gold Life-Saving Medal. Other acts of the service of keepers are inspiring. Indians attacked the Cape Florida Lighthouse and set it on fire. The keeper escaped with his life only after throwing a keg of gunpowder down the burning tower. Other keepers died on duty, being swept away in storms. The 1906 hurricane destroyed 23 lights along the Gulf Coast killing the keepers at Horn Island and Sand Island. An earthquake caused a tsunami in Alaska killing the crew of the Scotch Cap Lighthouse in 1946.

LIGHTSHIPS

Lightships also served to guide mariners where there was a need for a light but in a spot where lighthouses could not be placed. There have been over 120 lightship stations along the coast of the United States. The Lighthouse Service placed the first lightship in Chesapeake Bay in 1820. Hundreds of lightships have served along the coasts and usually in extremely exposed anchorages. The vessels carried virtually the same aids to navigation as lighthouses and lasted until 1974 when the Nantucket Lightship was replaced by a Texas Tower platform

Both storms and ships have taken their toll on lightships. Hurricanes have sunk and blown many lightships from their stations, while vessels passing through busy sealanes have collided with and sunk these floating aids. One of the deadliest collisions occurred on 16 May 1934. The 45,000 ton *Olympic*, sister of the ill-fated *Titanic*, struck and sank the Nantucket Shoals Lightship (No. 117) The liner approached the port of New York in fog and struck and drove the lightship to the bottom with the loss of seven of the eleven crewmen.

Law Enforcement

The Coast Guard's law enforcement responsibilities have been threefold. First, to ensure that the tariffs are not avoided. Second, to protect shipping from pirates and third, to intercept contraband. Today tariffs hardly seem controversial. But for the first Congress under the Constitution (1789), the imposition of these taxes was a bold act since such taxes had been a primary catalyst for the War of Independence. The young government's need for money was urgent. Trade revenue had to be the lifeblood of the treasury if the new nation was to survive. During colonial days and the War of Independence, smuggling had been a patriotic duty of maritime America. Seamen were admired who circumvented King George's trade laws, and later outran his fleet during the war. In 1789, a new respect for tariffs was needed.

Congress, guided by Secretary of the Treasury Alexander Hamilton, created a fleet of ten cutters whose responsibilities would be enforcement of the tariff laws. The spirit of the maritime service was captured in Hamilton's insistence upon thrift and responsibility to the public. Hamilton's creation collected money and did not spend it. Seven of the ten cutters were built for the allotted \$1,000 each. Two New England cutters exceeded the amount. Due to the severity of the winters, these vessels had to be larger than their southern sisters, Hamilton appreciated the unique problem, but insisted that the boats "be confined to the smallest dimensions...consistent with safety on ... [the Massachusetts] coast however eligible a larger one might be." The third cutter to exceed appropriations was *Philadelphia*. Costs exceeded the \$1,000 figure by \$500. Where the extra money came from is unclear, but it didn't come from Secretary Hamilton or the public treasury. The port revenue collector and the citizens of Philadelphia probably paid for the cost overrun. During the cutters' first ten years of service, the imports and exports of the nation rose from \$52 million to \$205 million. Along with financial responsibility, Hamilton demanded that the officers be servants of the people. "They [the officers] will always keep in mind that their Countrymen are Freemen & as such are impatient of everything that bears that least mark of a domineering Spirit."

National tariffs did not, go unchallenged. In 1832, South Carolina tried to nullify these laws. Five cutters were ordered to Charleston Harbor by President Andrew Jackson "to take possession of any vessels arriving from a foreign port, and defend her against any attempts to dispossess the Customs Officers of her custody." President Jackson added, "if a single drop of blood shall be shed there in opposition to the laws of the United States, I will hang the first man I can lay my hands on, upon the first tree I can reach."

Protecting commerce also meant suppressing piracy, still a trade practiced well into the 19th Century. In 1819 the cutters *Alabama* and *Louisiana* engaged and captured *Bravo*, commanded by Jean LaFarge, a lieutenant of the notorious Jean LaFitte of New Orleans. These same two cutters destroyed Patterson's

Town on Breton Island, a pirate stronghold. In 1822, *Louisiana*, cooperating with the Royal Navy and U.S. Navy, swept the Caribbean, capturing five pirate vessels. Intercepting contraband has been the Coast Guard's most controversial commerce protection responsibility.

Slavery was the tumultuous social issue of the first half of the 19th century. In 1794 cutters were charged with preventing the introduction of new slaves from Africa. By the Civil War, cutters captured numerous slavers and freed almost 500 slaves. An unpopular, embargo of imports was declared by President Thomas Jefferson in 1808 and cutters closed all ports in the nation.

Prohibition in the 1920s made the United States a "dry" nation; Coast Guard cutters conducted the unpopular "Rum War at Sea." During the early days of Prohibition, the Coast Guard was seriously handicapped by the lack of vessels, particularly fast ones. By 1924, "Rum Rows" not only graced New York's doorsteps, but fleets of rum-running craft from broken-down fisherman to freighters of considerable tonnage, hovered off the coasts of the United States, more or less, permanently.

On 20 March 1929, *I'm Alone*, of Canadian registry, was anchored off the coast of New Orleans with 2,800 cases of liquor on board. When the cutter *Wolcott* came into sight, *I'm Alone* moved seaward. *Wolcott* asked the Canadian to heave to so that she could be boarded and examined. *I'm Alone* refused. *Wolcott* fired several shells from her single three-pounder across the Canadian's bow. Then the *Wolcott's* gun jammed and she called for assistance. The cutters *Dexter* and *Dallas* responded. That evening *I'm Alone* hove to. An unarmed officer from *Wolcott* was allowed to come on board, but the Canadian skipper refused to permit any search. The officer returned to his cutter and the pursuit continued.

Next day, *Dexter* and *Dallas* joined in the pursuit. *Dexter* ordered the Canadian to "Heave to or I shall fire at you." The skipper of *I'm Alone* refused on the grounds that he was then on the high seas 14 or 15 miles from land or well beyond the legal limit of 12 miles. *I'm Alone* was sunk at Latitude 25 degrees, 45 minutes West by gunfire from the cutters, interrupted by repeated demands to "heave to." All but one member of the crew was rescued. The commander of the *Wolcott* insisted that *I'm Alone* was but 10.8 miles from the coast by his calculations. The Canadian government sent a strongly worded protest to Washington and the controversy dragged through years of legal and diplomatic bickering, finally being settled by arbitration.

In another celebrated case, the CG-249 overtook a motorboat off the Florida coast. The two men on board had 20 cases of whisky. A young Coast Guardsman and a member of the U.S. Secret Service were killed in a melee that ensued. One of the two rum-runners turned state's evidence and was sentenced to a year and a day in prison. The other was hanged at the Coast Guard Base at Fort Lauderdale, Florida, after the Supreme Court refused to review the case.

Having taken on board no less than half a million dollars worth of liquor at St. Pierre Island, *Holewood* ran down the coast to a point off New York where her crew proceeded to camouflage her to look like a well known American coaster, *Texas Ranger*. Disguised, she steamed up the Narrows and was reported as the latter vessel by marine observers. A careful Coast Guard officer, however, detected the fraud. He consulted a shipping news bulletin that reported the *Texas Ranger* was in the Gulf of Mexico that day. The pseudo-*Texas Ranger* was overtaken near Haverstraw, her captain and crew attempting to escape in a ship's boat. A search revealed the \$500,000 of choice liquors, the Coast Guard's largest single catch.

When the profit was taken from liquor running by the repeal of prohibition (5 December 1933), smuggling declined, but did not cease. Several small boats in the Gulf of Mexico continued to run guns to Central American countries and return with narcotics before World War II. It was estimated that 80 to 90 percent of the narcotics smuggled into the United States by 1937 were brought in from the Orient. The dropping of narcotics in waterproof containers by incoming vessels became so widespread that Coast Guard patrol boats were assigned to meet these ships far out at sea and trail them right in to their docks.

Intercepting contraband had been the Coast Guard's prime mission prior to World War II. This responsibility had been magnified by Prohibition, (1920-1933), and later in that decade by the prelude of World War II. Following the war, the Coast Guard's prime responsibility shifted largely to safety at sea and aiding navigation.

In the early 1960s, law enforcement once again assumed increased significance. In 1959, Fidel Castro took power in Cuba and within two years, the Coast Guard established patrols to aid refugees and to enforce neutrality, interdicting the transportation of men and arms. This responsibility peaked in 1965 due to increased restrictions on immigration from Cuba and then abated. During the early 1970s, an old law enforcement job, drug interception, took on increasing emphasis which continues today. From 1963 through 1979, the Coast Guard seized 304 vessels, confiscated over \$4 billion in contraband and made 1,959 arrests.

Military Readiness

The Coast Guard, through its forefathers, is the oldest continuous seagoing service and has fought in almost every war since the Constitution became the law of the land in 1789. Following the War of Independence (1776-83), the Continental Navy was disbanded and from 1790 until 1798, when the U.S. Navy was created, the revenue cutters were the only national maritime service. The Acts establishing the Navy also empowered the President to use the revenue cutters to supplement the fleet when needed. Laws later clarified the relationship between the Coast Guard and the Navy.

The Coast Guard has traditionally performed two roles in wartime. The first has been to augment the Navy with men and cutters. The second has been to undertake special missions, for which peacetime experiences have prepared the Service with unique skills. During the Quasi-War with France (1798-99), eight cutters operated along our southern coast in the Caribbean Sea, and among the West Indies Islands. Cutters captured 18 prizes unaided and assisted in the capture of two others. The cutter *Pickering* made two cruises to the West Indies and captured 10 prizes, one of which carried 44 guns and 200 men, three times her own force.

Augmenting the Navy with shallow-draft craft evolved out of the War of 1812 into a continuing wartime responsibility. During the opening phases of the war, Secretary of the Treasury Albert Gallatin addressed Congress. He said, "We want small, fast sailing vessels...there are but six vessels belonging to the Navy, under the size of frigates; and that number is inadequate." During the last two centuries, cutters have been used extensively in "brown water" combat. A cutter made the first capture of the war. One of the most hotly contested engagements was between the cutter *Surveyor* and the British frigate *Narcissis*. The *Surveyor* was captured. The British Captain wrote to Captain Samuel Travis on the following day,

Your gallant and desperate attempt to defend your vessel against more than double your number excited such admiration on the part of your opponents as I have seldom witnessed, and induced me to return you the sword you so ably used in testimony of mine... I am at loss which to admire most, the previous arrangement on board the *Surveyor* or the determined manner in which her deck was disputed inch by inch.

The defense of the cutter *Eagle* against the attack of the British brig *Dispatch* and an accompanying sloop, is one of the most dramatic incidents of the War of 1812. The cutter was run ashore on Long Island. Her guns were dragged up on a high bluff and from there the crew of *Eagle* fought the British ships from 9 o'clock in the morning until late in the afternoon. When they had exhausted their shot, they tore up the ship's logbook as wads and fired back the enemy's shot that lodged against the hill. During the engagement the cutter's flag was shot away three times and was as often replaced by volunteers from the crew on the hill. Finally, the British took the beached cutter with overwhelming numbers.

Revenue cutters fought a tenacious riverine war (1836-39) with the Seminole Indians in Florida. Cutters attacked parties of hostile Indians, broke up their rendezvous, picked up survivors of massacres, carried dispatches, transported troops, blockaded rivers to the passage of Indian forces, and landed riflemen and artillery for the defense of the settlements. These duties covered the whole coast of Florida.

At the outbreak of the Mexican War (1846-48), the Navy was once again critically short of small steamers and schooners; cutters filled the void. Charles Walke's beautiful lithographs of American amphibious operations accurately depict shallow-draft revenue steamers towing ashore naval craft packed with Marines and seamen.

Military preparedness has never been limited to declared war. Second Lieutenant James E. Harrison, of the Revenue Cutter *Jefferson Davis* stationed in Puget Sound, accompanied Company C, 4th US Infantry, commanded by Lieutenant W. A. Slaughter, USA, during the Indian uprising in the state of Washington in 1855. The Service had been assisting the Army throughout the Puget Sound area and Harrison was acting as second in command. On December 3, while in camp, Indians ambushed the company and killed Lt. Slaughter, placing the command of a regular army company on Lt. Harrison. He immediately rallied the company and engaged in a hot firefight to beat off the attackers. Harrison then led his company back to Fort Steilacoom, arriving on 21 December 1855. In 1858, the cutter *Harriet Lane* was part of a naval squadron sent to blockade Paraguay.

“If any men attempts to haul down the American flag, shoot him on the spot.” Secretary of the Treasury John A. Dix telegraphed this message on the evening of January 15, 1861, attempting to retain under Federal control the cutter *Robert McClellan*, then lying in the port of New Orleans. As within the country, the sympathies of the cutter force were divided between the North and the South. Principal wartime duties of those cutters serving the Union were patrolling for commerce raiders and providing fire support of troops ashore; those serving the Confederacy were used principally as commercial raiders. Cutters were involved in individual actions. *Harriet Lane*, under the command of Captain John Faunce, fired the first naval shots of the Civil War. On 11 April 1861, she challenged the steamer *Nashville* with a shot across its bow. In December 1862, the cutter *Hercules* battled Confederate forces on the Rappahannock River. The cutter *Miami* carried President Abraham Lincoln and his party to Fort Monroe in May 1862, preparatory to the Peninsular Campaign. Cutter *Reliance* engaged Confederate forces on Great Wicomico River in Virginia in 1864. Her commanding officer was killed in the action. On April 21, 1865, cutters were ordered to search all outbound ships for the assassins of the President.

In the Spanish-American War, cutters fought in the Caribbean and Far East. Eight cutters, carrying 43 guns, were in Admiral William Sampson's fleet and on the Havana blockade. *McCulloch*, carrying six guns and manned by 10 officers and 95 crewmen, was at the battle of Manila Bay and, subsequently, was employed by Admiral George Dewey, USN, as his dispatch boat. At the battle of Cardenas, 11 May 1898, the cutter *Hudson* sustained the fight against the gunboats and shore batteries of the enemy side by side with the torpedo boat USS *Winslow*. When Ensign Bagley, USN, and half the crew had been killed and her commanding officer wounded, *Hudson* rescued the craft from destruction while under furious fire from the enemy's guns. In recognition of this act, Congress authorized that a gold medal be presented to Lieutenant Frank Newcomb, USRCS, a silver medal to each of his officers, and a bronze medal to each member of his crew.

Also during the Spanish-American War, the Navy assigned the coast watching mission to the U.S. Life-Saving Service. As a result, approximately two-thirds of the Navy's coastal observation stations along the coastline of the U.S. were Life-Saving Stations. At no time was the elusive Spanish fleet observed along our coastline, but the 24-hour-a-day job was accomplished by a Coast Guard predecessor.

On the morning of 6 April 1917, a coded dispatch was sent from Washington to every cutter and shore station of the Coast Guard. Within a few hours the entire Coast Guard, officers and enlisted men, vessels and units came under the operational control of the U.S. Navy. In August and September 1917 six Coast Guard cutters, *Ossipee*, *Seneca*, *Yamacraw*, *Algonquin*, *Manning*, and *Tampa* left the United States to join our naval forces in European waters. They constituted Squadron 2 of Division 6 of the Atlantic Fleet's patrol forces based at Gibraltar. Throughout World War I, they escorted hundreds of vessels between Gibraltar and the British Isles, and also performed escort and patrol duty in the Mediterranean.

On the evening of 26 September 1918, *Tampa*, having acted as ocean escort for a convoy from Gibraltar to the United Kingdom, proceeded toward the port of Milford Haven, Wales. At 8:45 p.m. a loud explosion was heard. *Tampa* failed to arrive at her destination and a search was made for her by U.S. destroyers and British patrol craft. A small amount of wreckage identified as belonging to the cutter and two unidentified bodies in naval uniforms were found. It was believed that *Tampa* was sunk by a German submarine. Every officer and enlisted man on board *Tampa* perished. There were 115 in all, 111 of whom were Coast Guard personnel. With the exception of U.S.S. *Cyclops*, whose fate has never been ascertained, this was the largest loss of life incurred by any U.S. naval unit during the war. The British Admiralty wrote to Rear Admiral William Sims, USN,

Their Lordships desire me to express their deep regret at the loss of the U.S.S. Tampa. Her record since she has been employed in European waters as an escort to convoys has been remarkable. She has acted in the capacity of ocean escort to no less than 18 convoys from Gibraltar comprising 350 vessels, with a loss of only 2 ships through enemy action. The commanders of the convoys have recognized the ability with which the Tampa carried out the duties of ocean escort. Appreciation of the good work done by the U.S.S. Tampa may be some consolation to those bereft and Their Lordships would be glad if this could be conveyed to those concerned.

Following the outbreak of war in Europe in 1939, the Coast Guard carried out neutrality patrols as set out by President Franklin D. Roosevelt on 5 September 1939. Port security began on 22 June 1940 when President Roosevelt invoked the Espionage Act of 1917 which governed the anchorage and movement of all ships in U.S. waters and protected American ships, harbors and waters. Shortly afterwards, the Dangerous Cargo Act gave the Coast Guard jurisdiction over ships carrying high explosives and dangerous cargoes. In March 1941, the Coast Guard seized 28 Italian, 2 German and 35 Danish merchant ships. A few days later, 10 modern Coast Guard cutters were transferred on Lend-Lease to Great Britain.

On April 9, 1941, Greenland was incorporated into a hemispheric defense system. The Coast Guard was the primary military service responsible for these cold-weather operations, which continued throughout the war. On September 12 the cutter *Northland* took into "protective custody" the Norwegian trawler *Boskoe* and captured three German radiomen ashore. This was the United States' first naval capture of World War II.

The Coast Guard was ordered to operate as part of the Navy on 1 November 1941. During the war, Coast Guard-manned ships sank 11 enemy submarines and Coast Guard aircraft sank one. Coast Guard personnel manned amphibious ships and craft, from the largest troop transports to the smallest attack craft. These landed Army and Marine forces in every important invasion in North Africa, Italy, France, and the Pacific. Coast Guard coastal picket vessels patrolled along the 50-fathom curve, where enemy submarines concentrated early in the war. While on shore, armed Coast Guardsmen patrolled beaches and docks, on foot, on horseback, in vehicles, with and without dogs, as a major part of the nation's anti-sabotage effort. Coast Guard craft rescued more than fifteen hundred survivors of torpedo attacks in areas adjacent to the United States. Cutters on escort duty saved another one thousand and over fifteen hundred more were rescued during the Normandy operation. During the war the Coast Guard manned 802 cutters (those over 65 feet in length), 351 naval ships and craft, and 288 Army vessels. Almost two thousand Coast Guardsmen died in the war, a third of those in action. Almost two thousand Coast Guardsmen were decorated, one receiving the Congressional Medal of Honor, six the Navy Cross, and one the Distinguished Service Cross. The Coast Guard returned to the Treasury Department on Jan. 1, 1946.

The Service performed primarily a supporting role during the Korean Conflict. Its principal contributions were improving communications and meteorological services plus assuring port security and proper ammunition handling. The Coast Guard also served in Vietnam performing duties uniquely suited to the specialized skills of the Service. In 1965, 26 82-foot Coast Guard cutters were ordered to Vietnam. These were used in the "brown water" war, attempting to interdict Vietcong and North Vietnamese infiltration and logistics. In 1966 the first ocean-going cutters augmented the Navy and Coast Guard surveillance forces already in Vietnam. Coast Guardsmen were also detailed to improve port security, especially in Saigon, to assist with problems involving the Merchant Marine, and to teach workmen the basics of safe handling of ammunition and other dangerous cargoes. An in-country navigation system was created and a Loran network was set up for Southeast Asia. "Vietnamization" began in February 1969 and was concluded by December 1971. In all, 56 Coast Guard cutters served in Vietnam.

Environmental Protection

The Coast Guard has helped to protect the environment for 150 years. In 1822 the Congress created a timber reserve for the Navy and authorized the President to use whatever forces necessary to prevent the

cutting of live-oak on public lands. The shallow-draft cutters were well-suited to this service and were used extensively.

The ecological responsibilities of the Service were greatly expanded by the purchase of Alaska in 1867. Fur seals were being hunted into extinction due to the value of their coats. Seal herds congregated each year to breed on the Pribilof Islands. The seals had been ruthlessly slaughtered. A quarter-million were killed during the first four years of American control. In 1870 Congress restricted the number that could be killed. Beginning in 1894, small parties of Revenue Cutter Service personnel were camped on the Pribilof Islands to prevent raids on the rookeries. On 11 May 1908, Revenue Cutters were given the authority to enforce all Alaskan game laws.

In 1885 the Revenue Cutter Service cooperated with the Bureau of Fisheries in connection with "propagation of food fishes." Twenty years later, cutters enforced the regulations governing the landing, delivery, cure, and sale of sponges in the Gulf of Mexico.

Clean waters have been a concern for many decades. The Refuse Act of 1899 was the first attempt to address the growing problem of pollution and was jointly enforced by the Army Corps of Engineers and the Revenue Cutter Service. Today, the current framework for the Coast Guard's Marine Environmental Protection program is the Federal Water Pollution Control Act of 1972.

In 1973, the Coast Guard created a National Strike Force to combat oil spills. There are three teams, a Pacific unit based near San Francisco, a Gulf team at Mobile, Ala., and an Atlantic Strike Team stationed in Elizabeth City, N.C. Since the creation of the force, the teams have been deployed worldwide to hundreds of potential and actual spill sites, bringing with them a vast array of sophisticated equipment. Their most notable "battles" were with *Metula* in the Straits of Magellan during August 1974, *Showa Maru* in the Straits of Malacca during January 1975, *Olympic Games* in the Delaware River during December 1975, and *Argo Merchant* during December 1976.

The 200-mile zone created by the Fishery Conservation and Management Act of 1976 quadrupled the offshore fishing area controlled by the United States. The Coast Guard has the responsibility of enforcing this law.

Search and Rescue

Ever since man has gone down to the sea in ships, great risks have been run to rescue those in danger. To improve the possibility of success, responsibility had to be delineated and means appropriated. In 1831 the Secretary of the Treasury directed the revenue cutter *Gallatin* to cruise the coast in search of persons in distress. This was the first time a government agency was tasked specifically to search for those who might be in danger. In 1837 Congress authorized the President "to cause ... public vessels ... to cruise upon the coast, in the severe portion of the season ... to afford such aid to distressed navigators as their circumstance and necessities may require; and such public vessels shall go to sea prepared fully to render such assistance." This addressed rescue on the high seas. Yet, during the age of wood and sail, most disasters occurred close into shore.

From colonial days, the coastal colonies, later states, had certain responsibilities for the salvage of goods tossed upon their beaches from shipwreck. Many states also imposed upon the salvagers the duty to rescue persons on board shipwrecked vessels as a prerequisite to obtaining salvage rights. Persons appointed by the states, called "wreckmasters," "commissioners of vendue," "commissioners of wrecks," etc., were specifically charged with assembling a volunteer boat crew at each wreck that occurred within the wreckmaster's jurisdiction for the purpose of rescue and salvage. These early efforts were closely tied to maritime interests at the large coastal ports of Boston, New York, and Philadelphia.

The middle of the 19th Century was the era of the immigration packet. Small sailing ships were packed with several hundred immigrants in Europe. As these ships neared New York, nor'easters, which prevailed in the winter months, drove many of the crowded vessels aground on the New Jersey shore. There, but a few hundred yards from safety, the surf would pound the sturdiest craft to pieces and the

freezing, tumultuous water would overcome the strongest swimmer. Many rescue attempts were made from shore under these circumstances but, on the average, only about half those people on board reached the beach alive. The losses were not for a lack of volunteers wishing to help but mostly because no means had yet been contrived to reach the wreck across the breaking surf and to retrieve the occupants of the stricken vessel.

An innovative solution was needed; techniques and equipment had to be developed in order to save those stranded so close to their new homeland. Beginning in 1848, a federal lifesaving service began to take shape. At first, the government provided a garage-like structure outfitted with rescue equipment. The coasts of New Jersey and Long Island had experienced the greatest numbers of wrecks with the result that these beaches were the sites for the new stations. The construction and equipping was a joint project carried out by a Revenue Marine officer, the boards of underwriters, and local citizens associated with salvage work. There was a fully-equipped iron boat on a wagon, a mortar apparatus for propelling a rescue line, powder and shot, a small covered "life car" for hauling in survivors, a stove, and fuel. The keys to the station were entrusted to a community leader, usually a wreckmaster, and he organized his volunteer crew.

There were successes — in 1850 the immigrant ship *Ayrshire* grounded during a snowstorm at Squan Beach, N.J. Under the supervision of wreckmaster John Maxon, the volunteers rescued 201 of the 202 persons on board.

There also were failures. During the Civil War all save one of the iron surfboats were commandeered for use in the Hatteras Campaign. The remaining one was being used to slop hogs! Nevertheless, over the period 1848 through 1870 about 90% of the persons on board vessels wrecked within the scope of this Life-Saving Service survived.

In 1871 following the war, the Life-Saving Service was "reborn" under the leadership of Sumner L. Kimball, ably assisted by Revenue Marine Captain John Faunce (who had had command of *Harriet Lane* at Charleston in 1861). New stations were built; new equipment was developed; the scope of the Service was expanded beyond New Jersey and Long Island and personnel were federalized.

Much of the equipment and techniques developed during the mid-1800s continued in use for a century. The Lyle gun, named for an Army captain who devised it, typifies this. This weapon of salvation was used to throw a line from the shore to a distressed ship operations of the Life-Saving Service. Each LSS District was assigned an Assistant Inspector, usually a first or second lieutenant, who reported to a Revenue Marine captain. He was assigned as the full-time Inspector of the Life-Saving Service. The inspectors performed training and administrative inspections, and conducted investigations in instances where lives were lost during shipwrecks.

In September 1888, the crew of Hunniwells Beach Station rescued fifteen persons from Glovers Rock in Maine. They had to lash the Lyle gun on the afterthwart of their lifeboat and set the shotline box on the stern. The gun was loaded with a one-ounce cartridge of powder, and fired, casting the line almost into the hands of those in danger. Removing the people by breeches buoy was impossible due to the rocks; a small dory was rigged instead, and the fifteen people were hauled to safety. During the same storm, the crew of the Lewes (Delaware) Station, fired their gun from the upper window of a fish house, and landed the crew of the distressed craft in the loft with a breeches buoy.

Crews had to be able to perform their duties in the dark. On Feb. 3, 1880 a storm wrought ruin upon the Jersey coast. At the height of the tempest, in the dead of night, Life-Saving crews rescued, without loss of life, the people of four ships. Beach apparatus was set up and worked in almost total darkness; the lanterns were thickly coated with sleet and were practically useless. The records of the Life-Saving Service are crowded with other remarkable rescues.

The schooners *Robert Wallace* and *David Wallace* were wrecked at Marquette, Michigan, 18 November 1886. The Ship Canal Station crew traveled 110 miles by special train and rescued the ships' crews. In three days' work on the Delaware Coast, 10-12 September 1889, the life-saving crews at Lewes, Henlopen and Rehoboth Beach Station helped 22 vessels, and saved 39 persons by boat and 155 by breeches buoy without losing a single life. The British schooner *H. P. Kirkham* was wrecked on Rose &

Crown Shoal 2 January 1892. The crew of seven was rescued after 15 hours exposure. The lifesaving crew was at sea in an open boat without food for 23 hours. There also were sacrifices. Seven surfmen lost their lives going to the aid of the Italian ship *Nuova Ottavia* on 1 March 1876.

Personnel from the Lighthouse Service and the Revenue Cutter Service also performed heroic rescues. On Dec. 31, 1839, the schooner *Deposit* was driven onto the Massachusetts coast by hurricane winds. T.S. Greenwood, keeper of the Ipswich Lighthouse, tied a line around his waist and swam through the roaring surf to the doomed ship. He then pulled a surfboat with a colleague in it to *Deposit* and the pair rescued the wife of the ship's captain. In 1897-1898, crew members of the cutter Bear drove a herd of reindeer 2,000 miles as food for 97 starving whalers caught in the Arctic ice.

The beneficiary of search and rescue operations continually changed. From 1830 through 1870, the immigrant packet proved to be the most vulnerable. The introduction of steel, steam, and improved aids to navigation significantly reduced coastal disasters affecting large passenger vessels. These innovations introduced more shipping into the high seas, resulting in a shift in the area of operation for search and rescue activity involving vessels with large numbers of persons on board. Smaller coastal sailing vessels remained as the primary focal point for Life-Saving Service operations until the turn of the century.

From 1871 to 1914, 178,741 persons received the services of the "Life-Savers." Although some of these people faced minimal risk, only 1,455 individuals lost their lives while exposed within the scope of Life-Saving Service jurisdiction.

"Blue water" cutters, joined by flying amphibians in the 1930s, became primary rescue platforms. Regular trans-Atlantic air traffic was initiated just before World War II, introducing new clientele. Ocean Stations were established, first in the Atlantic and later in the Gulf of Mexico and the Pacific. A cutter was stationed in mid-ocean to provide rescue sites and to report on weather. Increased aircraft reliability and improved electronics have removed the need for the stations and the last was disestablished in 1977.

"Search and Rescue" has been dramatically influenced by technology from that day in 1831 when the federal government assumed a responsibility. Ironically, during World War II the Coast Guard was charged with developing the helicopter for anti-submarine warfare. The Coast Guard trained all helicopter pilots, both British and American. As the submarine threat abated in 1944, the emphasis of helicopter development was changed from anti-submarine warfare to search and rescue.

Following World War II, the search and rescue scene shifted back to the tidewater, the new patron being the boating enthusiast. Pleasure craft grew in increasing numbers and the helicopter emerged as a primary rescue tool. Each era has required new equipment suited to the needs of that day.

High-seas search and rescue has long presented the Coast Guard with one of its greatest challenges. When disaster occurs, hundreds of lives may be at stake. In October 1980, while almost 200 miles off Sitka, the Dutch cruise ship *Prinsendam* was jarred by explosions and stopped dead in the water after a fire started in the engine room. In spite of rough seas and strong winds, four Coast Guard, one Air Force and two Canadian helicopters plucked more than 500 shipwreck survivors from crowded lifeboats in the cold Gulf of Alaska. Many of the survivors, mostly senior citizens, were lifted in rescue baskets to the awaiting Coast Guard Cutter *Boutwell* and the commercial tanker *Williamsburgh*. Not one life was lost; *Prinsendam* sank seven days later.

Preventive Safety

Safety at sea requires preventative and corrective measures. Too much is as bad as too little. A ship is similar to a delicately tuned instrument. If excessive cost and weight are devoted to safety, the ship will not be competitive and probably will never be built. Throughout the history of commercial vessel safety, there has been the constant struggle to provide a balance between the greatest degree of safety and reasonable cost.

The steam engine was married to the sailing ship in the early 19th century. Beginning in the second

decade of that century, there was a series of shipboard boiler explosions, resulting in huge losses of life. Almost immediately two schools of thought concerning commercial vessel safety crystallized. There were those who favored strong federal regulations and those who opposed government interference into transportation. At first, the federal government followed a laissez-faire philosophy. Secretary of the Treasury Richard Rush remarked in 1825, "Legislative enactments are calculated to do mischief rather than prevent it..."

State governments attempted to establish safety standards for steam vessels; these due to the interstate nature of waterborne commerce. The catalyst for federal action occurred in 1837 when the steamboat *Pulaski* exploded in North Carolina; 100 lives were lost. Congress passed an act "For the better security of the lives of passengers." This was the birth of commercial vessel inspection. The act provided the installation of fire-fighting and life-saving apparatus. Enforcement was the weak link; district judges appointed local persons to be inspectors. Obviously, in this small blossoming industry, the local individual competent to pass judgment must have had close ties with the shipowners. Also, no standards were set. Each inspector used his own judgment as to what was the maximum steam pressure permitted, and so on.

The evolution of technology outstripped these mild legislative controls even though updated, and disasters continued. From December 1851 through July of the following year, there were seven major disasters, costing nearly 700 lives. Congress responded with the Steamboat Inspection Act of 1852. This expanded the responsibilities of the Act of 1838 and corrected the major flaw of the earlier law by controlling inspections and licensing. This new law had its shortcomings as well. Only steamships carrying passengers were subject to its provisions. Thus, steam tugs, freighters, canal boats were exempt from the provisions of the 1852 law, although still remaining subject to those of the 1838 one.

The Civil War diverted America's efforts from commercial vessel safety, as it had from life-saving, and an awesome price was paid. Fifteen hundred people perished on board the stern-wheeler *Sultana* in 1865 in the largest U.S. commercial maritime disaster. *Sultana* embarked nearly all of the 376 allowed passengers. Taking advantage of the wartime environment, 2,000 Union veterans, most of whom were recently freed prisoners of war, were also packed on board. While plying the river between Memphis and Cairo, Ill., a boiler exploded and the ship went up like a torch.

Future disasters brought in sharp focus areas needing improved safety regulations. Almost 1,000 lives were lost on *General Slocum* in 1904; as a result, safety regulations and inspection equipment were improved. More than 1,500 lives were lost on *Titanic* in 1912; certification and life-saving devices were improved. More than 100 lives were lost on board *Morro Castle* in 1934 and another 45 on *Mohawk* the following year. Partly as a result of these two disasters, more marine legislation was passed in 1936 and 1937 than during the previous twenty years. To the novice, commercial vessel regulations seem a reaction to disaster. In fact, disaster has proven a catalyst for perfecting efforts previously undertaken.

The Coast Guard is a 20th century agency. The United States is an active member of the International Maritime Organization, an arm of the United Nations. IMO, composed of more than one hundred nations, has focused on such problems as safety at sea, prevention of pollution from ships, and technical cooperation among governments. These problems are under continual study and as solutions emerge, IMO sponsors conferences to draft international conventions and agreements. The Department of State looks to the Coast Guard as the agency having the expertise to enable effective U.S. participation.

Safety at sea depends upon competent mariners as well as safe ships. Since the early 1700s, harbor pilots had been licensed by colonial and later state governments. Illustrative of their widespread use, George Washington's presidential barge was manned by local pilots as he traveled throughout the country in the early 1790s.

The first federal licensing of mariners was required by the Act of 1852, which authorized the Steamboat Inspection Service to issue licenses to engineers and pilots of steamers carrying passengers. Licensing has been refined and expanded throughout the decades to include masters and chief mates plus others in positions of responsibility on board all types of ships. Licensing and certifying of U.S. maritime personnel is another of the safety functions of the Coast Guard.

Today, one of the most visible missions of the Coast Guard is boating safety. Yet, the beginnings of this responsibility are obscured by indecisive legislation. In 1896 the Secretary of the Treasury was authorized "to prescribe regulations to insure the safety of passengers on ... [all] craft ... attendant ...upon regattas..."Although a very narrow law, it was the first attempt at regulating pleasure boat safety. In 1908 this modest responsibility was transferred from the Treasury to the Department of Commerce and Labor, which had only a single vessel to enforce the law!

The Motorboat Act of 1910 finally established a creditable boating safety program. The act required boats to be equipped with navigation lights, whistles, fire extinguishers, and life preservers. Although enforcement was still a problem, the number of accidents immediately declined.

The next milestone occurred in 1939 when the volunteer organization, known today as the Coast Guard Auxiliary, was created. The Auxiliary, working side by side with the regular Coast Guard, has significantly contributed to solving the enforcement problem. The 1940 Motorboat Act improved safety standards. Advances in technology have required constant updating in the law, with major changes occurring in 1958 and 1971. The Coast Guard's philosophy toward boating safety has been to educate the public rather than carry out punitive measures. The boating fatality rate during 1981 was 8.3 deaths for each 100,000 craft as compared to 21.4 deaths during 1965. There are fourteen million boats in American waters requiring constant vigil.