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Ponce de Leon Inlet Light Station

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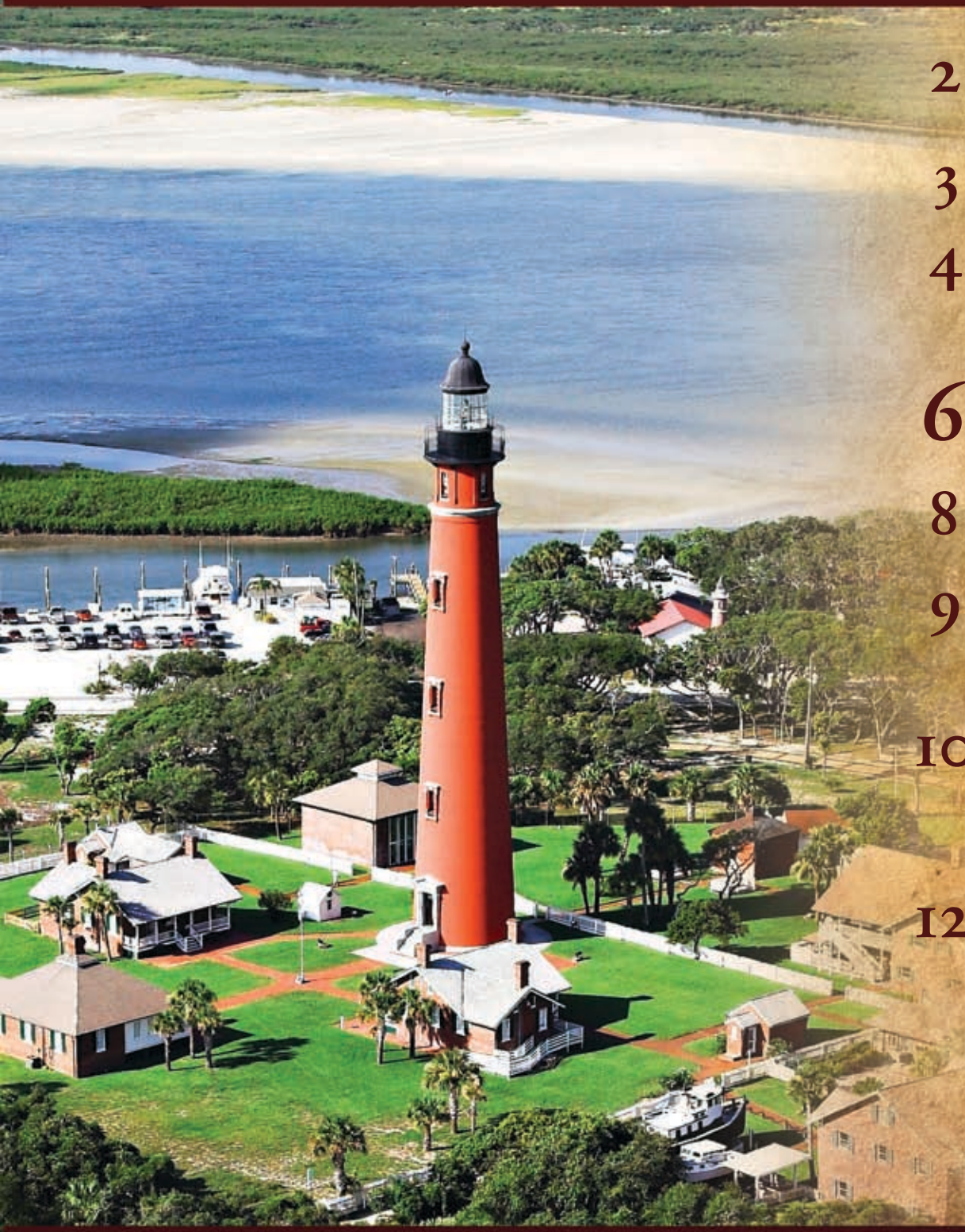

The Quarterly Newsletter of the Ponce de Leon Inlet Lighthouse Preservation Association, Inc.

I would like to take this opportunity to thank everyone who donated to the annual fund drive. Due to the current economic downturn available grant funding through the Florida Department of State, Division of Historic Resources has diminished considerably. Our ongoing endeavors to preserve and disseminate the maritime and social history of the Ponce de Leon Inlet Light Station would be impossible without the continued financial support of our generous members. Thank you once again.

On January 17, the Lighthouse hosted a night climb and tour of the museum for the Florida Lighthouse Association's strategic planning and quarterly membership meeting. The event proved to be a huge success, and provided the Association with the opportunity to celebrate the issuance of the Florida Lighthouse specialty license plate, *Visit Our Lights*, which is now available at tag and registration offices throughout the state.

The additional $25 for the plate is tax deductible and will provide sustained funding for Florida's remaining 30 historic lighthouses. At least 90% of all revenue generated by the sale of the Visit Our Lights specialty plate will go towards the continued preservation of our State's surviving beacons. Funds will be distributed to individual lighthouses through a Florida Lighthouse Association administered grant program. For more information, please visit: www.flhsmv.gov.

The Science of Light educational outreach program and exhibit continues to progress according to schedule. Staff has worked closely with Dan Spinella of *Art Works of Florida* in the design and drafting of new video script and graphics. When completed, this new inter-active exhibit will be taken into local schools free of charge as part of our expanding educational outreach programs.

Educational program development has remained one of the Association's most important missions, and has provided thousands of students with a wide range of educational opportunities each year. The Association has worked diligently over the past three years to expand its existing educational outreach offerings to accommodate the growing needs of area educators who are unable to bring their students to the Lighthouse due to ongoing budgetary cuts.

Landscaping material was generously donated by the family of Bill Petkus in his memory. The landscaping will provide much needed updating to the Lighthouse entrance beds. Bill loved the Lighthouse. This gift of landscaping will not only enhances the Lighthouse ground, but will also serve as a beautiful tribute to Mr. Petkus' life. The Association would like to offer their sincere condolence to all of Bill's loved ones and thank them for the wonderful gift in his honor.

Once again, I would like to thank all of you for contributing so generously to the Ponce de Leon Inlet Lighthouse Association. Your contribution will help support our important mission to preserve and disseminate the maritime and social history of the Ponce Inlet Light Station.

Respectfully,

Ed Gunnlaugsson

Executive Director

The Ponce de Leon Inlet Lighthouse Preservation Association is dedicated to the preservation and dissemination of the maritime and social history of the Ponce de Leon Inlet Light Station.

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The Light Station is published quarterly by the Ponce de Leon Inlet Lighthouse Preservation Association, Inc.

Subscription is a benefit of membership in the Association. The Light Station welcomes letters and comments from our readers.

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Upcoming Meetings:

Apr. 15, 2009 Wednesday	Budget & Finance/Endowment Fund Committee Meetings
Apr. 20, 2009 Monday	Board of Trustees and Quarterly Membership Meeting
May 18, 2009 Monday	Board of Trustees Meeting
Jun. 15, 2008 Monday	Board of Trustees Meeting

All meetings are held in the Gift Shop Conference Room

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Daytona Beach, FL

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Lighthouse Events April–June 2009

Apr 3 (Fri)
1:00 – 2:00 pm

Canaveral Lens Demonstration

Meet the old-time lighthouse keepers in the Lens Exhibit Building. Learn about the Cape Canaveral 1st Order Fresnel Lens and how weekly maintenance is preformed on this historic lighthouse optic. All activities included with price of regular admission. No advance registration required.

Apr 25 (Sat)
10:00 am – 2:00 pm

Florida Lighthouse Day

Enjoy family-oriented activities, demonstrations, and kid's crafts. Test your knowledge about Florida's many lighthouses and see the Canaveral Lens Maintenance Demonstration by 1930s era lighthouse keepers. Learn about the newly released "Visit Our Lights" Florida license plate and how revenue generated by this special tag will help fund the continued preservation of the State's 29 remaining historic towers. All activities are included with the price of regular admission. No advance reservations required.

May 9 (Sat)
10:00 am – 2:00 pm

Girl Scout Day

Calling all Girl Scouts! Come and enjoy the lighthouse and museum while working on requirements for the Lighthouse Brownie Try-It, the Junior Lighthouse Badge, or the Lighthouse Interest Project. Tickets are available online at www.poncelighthousestore.org beginning April 7th at 1:00 p.m. Contact Program Manager Bob Callister at bobcallister@ponceinlet.org for more information or by phone at (386) 761-1821.

2009 Spring & Summer Lighthouse Hours

Normal Hours of Operation

September 2, 2008– May 24, 2009	Open daily from 10:00 a.m. until 6:00 p.m. (last admission at 5:00 p.m.)
May 25, 2009– September 7, 2009	Open daily from 10:00 a.m. until 9:00 p.m. (last admission at 8:00 p.m.)

Newsletter Contributing Writers

Mike Bennett
Ellen Henry
Bob Callister
Tom Zane
Ed Gunn

Evolution of the U.S. Coast Guard

The United States Coast Guard is a multi-mission military organization within the Department of Homeland Security, and one of the nation's five armed services. Its core missions are to protect the public, the environment, and the economic and security interests of the United States in any maritime region both at home and abroad. Firmly rooted in the U.S. Revenue Cutter Service-Marine, the U.S. Light House Establishment, and the U.S. Life Saving Service, the Coast Guard can proudly claim the distinct honor of being the nation's oldest maritime service.

Founded on the recommendations of the Secretary of the Treasury and fervent Federalist leader Alexander Hamilton, the United States Customs and Revenue Cutter Services were two of the first federal agencies formed following ratification of the U.S. Constitution in 1789. Unlike Thomas Jefferson's Democratic-Republicans, Hamilton and other Federalists promoted the idea of a strong centralized government and maintained that the future success of the United States resided not on the shoulders of the celebrated "yeoman farmer" but in the nation's budding manufacturing and maritime industries.

The *USRC Harriet Lane* is said to have fired the first shots of the Civil War in Charleston Harbor

The Revenue Cutter *Massachusetts* was one of ten schooner-rigged vessels ordered by Secretary of the Treasury Alexander Hamilton. Commissioned in 1791 the *USRC Massachusetts* proved ill-suited for her role and was sold the following year.

All ship masters entering or exiting the United States were required to report to the Customs House. Although the size of the Customs House varied from one port to another, many were quite impressive, including this one in Charleston, SC.

Faced with numerous economic hurdles, including nearly 80 million dollars of war debt and an empty federal coffer, Secretary Hamilton advocated an ambitious fiscal program to finance the government's ongoing activities. Drawing upon its constitutional powers to levy taxes and regulate commerce, Congress passed the Tariff Act of 1789. Signed into law by George Washington on July 4th, this important piece of legislation authorized the collection of tariffs on imported goods and provided the U.S. Government with its first source of reliable income.

Founded four weeks after the signing of the Tariff Act, the U.S. Customs Service was the nation's first federal agency. Initially stationed at 59 mandatory ports of entry, Customs officials were given the responsibility of inspecting all vessels entering the United States and collecting the appropriate taxes for each vessel based on its size, cargo, and port of origin (foreign vessels were charged an additional 10%). Established for the express purpose of "regulating the collection of duties" the Customs Service addressed its mission with an efficiency and dedication of purpose that would generate over 90% of the government's annual revenue for the next hundred years.

The Great Seal of the United States Coast Guard, America's oldest maritime service.

The U.S. Light House Establishment was responsible for constructing, maintaining, and operating all aids to navigation including lighthouses, buoys, and channel markers until being absorbed by the U.S. Coast Guard in 1939.

Having recently concluded a war of independence sparked in part by the taxation of imports by the British Government, it came as no surprise that many Americans would resist the idea of federally imposed tariffs. Realizing the Customs Service might require some assistance in the performance of its duty, Alexander Hamilton petitioned Congress for an armed service to help enforce the law. The government granted the Secretary of the Treasury's request and authorized the establishment of the United States Revenue Cutter Service into existence on August 4th, 1790.

Originally consisting of ten lightly-armed vessels, the U.S. Revenue Cutter Service constituted the nation's only armed maritime service until harassment of American shipping off the Barbary Coast led to the founding of the United States Navy in 1798. Serving in a military capacity alongside the U.S. Navy during the Quasi-War with France, revenue cutters participated in the capture of more than twenty French vessels before hostilities came to an end in 1800. The collaboration between the two maritime services proved so successful that the determination was made to place the Revenue Cutter Service under the direct authority of the Department of the Navy in times of war from that time on.

Often working autonomously, revenue cutter captains wielded considerable power. Although authorized to search and seize any vessel or cargo suspected of breaking established Customs laws, Treasury Secretary Alexander Hamilton understood that the manner in which captains carried out these duties would be of paramount importance, especially in a society of independent citizens who had little patience for despots or narcissistic officials. Instructing them to endeavor to overcome difficulties with a cool and temperate perseverance, Hamilton warned his captains to "always keep in mind that their countrymen were freemen, and, as such, were impatient of everything that bore the least mark of a domineering spirit."

The United States Revenue Cutter Service was authorized to search and seize any vessel or cargo suspected of violating U.S. Customs Law either at port or at sea.

The Revenue Cutter Service performed its primary mission of enforcing customs laws with great efficiency and effectiveness. Signed into law on March 2nd, 1807, the Act to Prohibit the Importation of Slaves stipulated that any vessel suspected of smuggling foreign slaves into the United States would be subject to search and seizure by the proper authorities. By 1865, the U.S. Revenue Cutter Service had searched countless vessels suspected of transporting slaves and seized over 500 others including the infamous slaver Amistad by the Revenue Cutter Washington on August 26th, 1839.

In addition to its Customs mission, the United States Revenue Cutter Service had worked diligently since its inception to "render assistance and aid as needed for the protection of life and property at sea". Working alongside the U.S. Light House Establishment, established in 1789 to construct, maintain, and operate all aids to navigation within American territorial waters, the Revenue Cutter Service strove to safeguard the nation's waterways by charting harbors, rivers, and channels and removing derelict vessels from navigable waterways.

As America's maritime industry grew so too did the frequency of shipwrecks, especially in the north where violent winter storms turned the unpredictable North Atlantic into a churning wind-driven tempest of ice and snow. Alarmed by the growing number of wrecks littering the New England coast, Secretary of the Treasury Louis McLane ordered the Revenue Cutter Service to commence winter cruises of the area in 1832. The decision would prove to be one of momentous importance to both the maritime industry and the future of the service itself.

Armed with an unsurpassed knowledge of New England's treacherous coast and equipped with nimble vessels built specifically for shallow water operations, the Revenue Cutter Service quickly proved itself well suited to the unique mission. The frequency of shipwrecks occurring in waters patrolled by the revenue cutters dropped and the Service quickly developed a reputation for operating in weather conditions that drove most other ships to safe harbor. Made a mandatory mission of service in 1837, winter patrols soon became a hallmark of the Revenue Cutter Service and a source of pride for the exceptional men who sailed upon the cutters' storm swept decks.

Founded in 1871, the U.S. Life Saving Service was a federal agency that grew out of private and local humanitarian efforts to save the lives of shipwrecked mariners and passengers. Originally consisting of a handful of scattered unmanned facilities possessing only the most rudimentary equipment, the U.S. Life Saving Service grew under Revenue Marine Board Secretary Sumner Kimball to include a network of over 270 facilities consisting of Life Saving Stations, Life Boat Stations, and Houses of Refuge. Working in tandem with the U.S. Revenue Cutter Service and U.S. Lighthouse Establishment, the U.S. Life Saving Service established a system of national maritime safety second to none in the world.

The United States Life Saving and Revenue Cutter Services functioned autonomously until the two were merged to form the United States Coast Guard in 1915. Essentially a continuation of the Revenue Cutter Service, the Coast Guard continued to perform all of its original Customs and maritime safety duties in addition to those of the late Life Saving Service. This mission was expanded to include the construction, maintenance, and operation of all aids to navigation when the Coast Guard absorbed the United States Light House Service in 1939.

With over two hundred years of uninterrupted service, the United States Coast Guard and its predecessors have served the needs of the nation with distinction and honor. From its humble beginning in 1789, with the commission of ten shallow drafted schooners, to its present-day compliment of over 41,000 personnel, 200 aircraft, and hundreds of vessels, the Coast Guard continues to perform its multi-faceted mission with the same dedication to service instilled by its founders those many years ago.

The United States Life Saving Service operated Life Saving Stations, Life Boat Stations (pictured above), and Houses of Refuge.

The United States Coast Guard and its predecessor, the Revenue Cutter Service, have served with distinction in every major American conflict since the nation's founding.

The Coast Guard continues to perform the time honored missions of the U.S. Revenue Cutter Service, the U.S. Light House Establishment, and the U.S. Life Saving Service to this day.

Restoration Complete!

On December 11, 2007, three crates arrived from California containing a Chance Brothers third-order-middle fixed lighthouse lens, a lens pedestal, fuel tanks, and an incandescent oil vapor lamp. These items had been in service in Australia and had made their way into a private collection that was now being sold. The fuel tanks, pedestal, and possibly the lamp, had come from the Cape Don Lighthouse. The lens itself had served at the Hannibal Island Lighthouse in the early 1920s. The lens was manufactured at the Chance Brothers factory near Birmingham, England, in the early 1850s. Although the ages of the other items are not known, they most likely date from 1915-1925.

Chance Brothers Nameplate

When artifacts such as these arrive at the museum they are allowed time to adjust to the climate before being unpacked. As soon as the cases were opened, however, our restoration team immediately went to work measuring, inspecting, and assessing the condition of the items. The pedestal, fuel tanks, and IOV lamp had undergone restoration while in the private collection, but the Chance Brothers lens had not been touched. It had undergone re-glazing of the prisms during its long history, but the bronze possessed a thick coat of patina as well as plenty of dirt and soot from its many years in service.

Before putting these new objects on display in the Lens Exhibit Building, it was decided that the lens would have to undergo some restoration and repair in order to preserve it in the best possible condition. The glazing around the prisms and lenses would be removed and replaced for the safety of the glass. It was also decided to aim the prisms in order to make the glass reinstallation as authentic as possible. Since there was evidence of active corrosion on the bronze frame, the entire lens would be taken apart once the glass was removed, and the metal would undergo a gentle cleaning prior to the reinstallation of the prisms and lenses.

Before any work was done, detailed photographs were made of every part of the lens.

As the lens was being measured, it was also necessary to identify, name, and number its various parts. For example, the lower portion of the lens consists of two panels, the door and the rest of the lens. The door was identified as panel 1, section 1. Panel 2 had three sections numbered 2, 3, and 4. The upper section of reflecting prisms, the "beehive," came apart in two panels, with two sections each.

Since the entire lens was going to be dismantled, each prism was given a set of identifying numbers and letters. The largest piece of glass in each of the four lower sections is the center dioptric, or D1. Each of these had to be marked to indicate the panel number, section number, and the top and bottom of the glass. Above the center dioptrics in each section are three upper dioptrics, or UD 2, UD 3, and UD 4. Below each center dioptric are three lower dioptric prisms. Below these are four lower catadioptric or reflecting prisms. The four sections that make up the two beehive panels contain eight upper catadioptrics each. All in all, the lens originally had 76 pieces of glass. Five were missing, having been broken and lost over the years.

Once every bit of the lens had been identified and numbered, it was time to train a group of volunteers to help with the painstaking task of cleaning and reassembling the pieces. The initial training class was made up of Helen Magale, Allen Bestwick, Jackie Mann, John Mann, Gerry Harris, and Art Hahn. Under the guidance of museum staff, John Mann, Art Hahn, and Gerry Harris performed most of the volunteer work, eventually amounting to nearly 500 hours.

It was decided to carry out this restoration in a gallery where the public could observe and interact with the team. The kitchen of the Principal Keeper's Dwelling was used as the restoration workshop and locked whenever restoration was not underway. Every Tuesday and Thursday from April through November, staff and volunteers could be found sharing their progress with our visitors.

The first challenge faced by our restoration team was the removal of old glazing in order to free the prisms from their bronze frames. This was accomplished by carefully picking away the old glazing with wooden skewers, dental

Hanibal Island and Cape Don; Hannibal island Lighthouse


The Chance lens is unpacked


Museum volunteers undergo training to help with Chance lens restoration.

Allen Bestwick works on the lens in gallery

Art Hahn & Jimmie V. install an upper catadioptric prism

Gerry Harris aims the upper catadioptric prisms.

John and Jackie Mann remove old glazing from lens

The restoration team use a laser to aim the prisms

The restored Chance lens is moved to the Lens Exhibit Building

Staff member Jimmie Vanover cleans the bronze frame

The lens is lifted onto its pedestal.

tools, and virtually any other type of plastic or wooden pick that would do the job. In many cases, the glazing was rock hard and incredibly difficult to remove.

All work with the glass was stressful. If a prism was broken, it meant that an important historical object was lost or altered forever. Although replacement prisms have been made in the past, the cost of doing so and difficulty in finding an artisan willing to take on the daunting task has always been great. Whenever glass was being installed or moved, at least two people were involved, and someone always had a hand on the glass to protect it.

Each prism was given a careful cleaning once it had been removed from the lens frame. Volunteers began working on the tedious task of removing stubborn clumps of glazing material with non-abrasive tools. Surprisingly, the common everyday popsicle stick turned out to be the best tool for this and many other jobs performed during the restoration. Each side of the prism was then subjected to a gentle cleaning. Mineral spirits and rubbing alcohol were used to clean away dirt, oil, and finger prints prior to rinsing the entire prism in distilled water. Special lens towels were used to wipe the glass dry. The cleaned glass was then turned over to yet another volunteer who carefully examined the lens and recorded any damage in great detail. Each prism, marked with its code of identifying numbers and letters was then photographed, wrapped in protective foam, and stored out of harm's way.

After all the prisms were removed, the bronze frame was examined and damage reports were made for each piece. Residual glazing was removed from the bronze using wooden and plastic tools to prevent scratching the historic material.

After manually picking away the dirt, soot, paint spots, corrosion, and grime, the entire frame was examined for tell-tale greenish areas that could indicate bronze disease. A damaging form of corrosion, bronze disease can occur when copper chlorides in the bronze mix with water or water vapor to form hydrochloric or sulfuric acids which cause the metal to disintegrate. The early stages of bronze disease have a fuzzy green appearance that is easy to confuse with green patina, a beneficial surface oxidation that can protect the metal from harmful chemical reactions such as bronze disease.

Areas that proved by appearance or by pH tests to be active bronze disease had to be cleaned and stabilized. Since the restoration team had decided to remove as little surface patina as possible, a method of removing bronze disease while keeping most of the patina intact had to be devised. This involved hours and hours of painstaking manual cleaning with picks, pins, wooden popsicle sticks, rags, and distilled water. Some rubbing with Never-Dull, a wadding polish, was done. The heaviest areas of bronze disease were found along the undersides of the lower section support rings. The restoration team cleaned these sections using a walnut blaster. Similar to sand blasting but without the extreme abrasiveness, walnut blasting is actually a very gentle procedure that removes very little of the surrounding patina. A few areas were also treated with a weak (2%) solution of citric acid. Ultimately, the best cleaner proved to be Kroil rubbed into the metal with a rough linen rag.

The restored Chance Brothers lens is now on view in the Lens Exhibit Building.

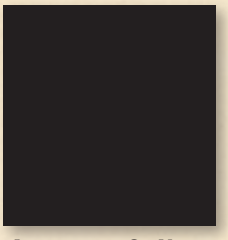
When the bronze was finished, it was time to put the glass back in place. This was certainly the most entertaining part of the restoration for our gallery visitors and the most challenging for our volunteers.

Step one was the creation of an aiming chart for the lens. This would be the target for a laser light that would be shone through each prism. When the laser passed through the prism and landed on the center line corresponding to it on the aiming chart, the installers would know

the prism was aimed correctly. Each piece of glass was carefully inserted in its frame. One team member would aim the laser through the prism's center while two other team members, one at each end of the prism, would adjust its position in the frame. Long, triangle shaped positioning wedges would be fitted between the glass and the bronze to hold the glass in place. When the correct position was found, each positioning wedge was replaced with a tiny walnut block called a finishing wedge. When each end of the prism was completely wedged in, the empty spaces between glass and frame would be filled with Dap 33, a special glazing compound. Trimming away the excess Dap turned out to be an art form that was quite difficult to master. Once the Dap dried, it was painted to extend its life for many years to come.

On December 19, 2008, almost exactly one year after its arrival at the museum, the Chance Brothers lens was moved to its new home in the Lens Exhibit Building. The largest panel was moved first. A cradle was constructed to help the restoration team move each portion of the lens from the gallery to the cart that would carry the heavy object across the Light Station grounds. Two men carried the cradle. Each man had a harness around his shoulders to help support the lens in case either man had to let go of the cradle handles. The lens was reassembled on the pedestal which had already been moved into the gallery. The IOV lamp was placed inside the lens once assembly was complete. The fuel tanks were installed adjacent to the pedestal.

In order to accommodate the new lens, a number of changes were made to the existing exhibit space. A new display window was added in the wall under the east staircase. New signs were installed on the railing and old wall signs repositioned. A fine example of a third order clockwork mechanism, built in the early 1900s and used to rotate a third order lens, was also added to the Fresnel lens display. The Preservation Association's collection now includes examples of Swedish, English, French, American, and New Zealand made lenses in sizes ranging from small buoy lights to those of the first order.



Incandescent Oil Vapor (I.O.V.) Lamps were often used in lighthouse beacons in days before electricity

Lighthouses of the World

Vinga Light Station

An Unusually Complete Light Station

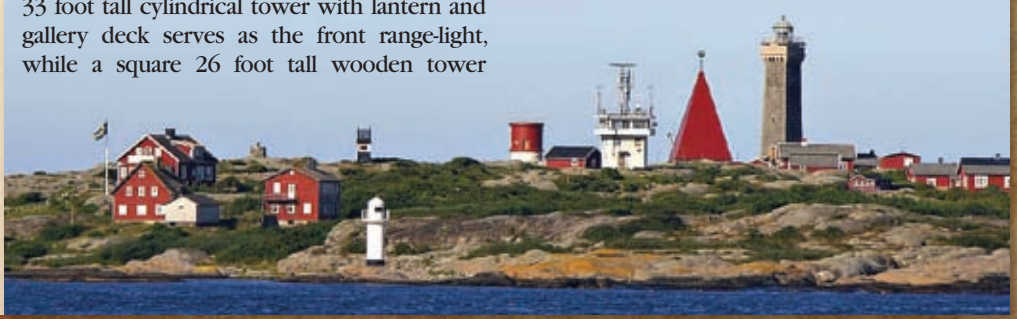
The Vinga Light Station, situated on the west coast of Sweden, is one of the most unusually complete lighthouse facilities in the world. Surrounding the historic tower is a "light keeper's village" which includes several light keeper dwellings, navigational structures, and additional support buildings.

The light station is located eleven miles due west of Göteborg at the entrance to the Kattegat, a sound separating Sweden from Denmark. It is the traditional landfall light, not just for Göteborg, but for all of Sweden. Along with Skagen Fyr (or lighthouse) on the Danish side, the Vinga Lighthouse marks the entrance to both Kattegat Sound and the Baltic Sea for ships arriving from the North Sea and Atlantic Ocean.

The station was first established in 1841, although only ruins of the earliest tower's foundation remain. In 1854 a round-cylindrical 39 foot tall stone tower was constructed to provide Vinga with a double light. The second lighthouse was deactivated and its lantern removed in 1890 following the completion of a new square-pyramidal granite tower. The new lighthouse stood 95 foot tall, featured a lantern room and gallery, and an impressive 1st Order Fresnel Lens. It remains the principal aid to navigation at the Vinga Light Station to this day.

A pair of synchronized flashing lights constructed at the Vinga Light Station in 1896, serve as the station's range lights. Range lights serve as important aids to navigation around the world, especially in areas where ships must remain centered in a narrow channel. A 33 foot tall cylindrical tower with lantern and gallery deck serves as the front range-light, while a square 26 foot tall wooden tower set upon pilings and surmounted by square slatted daymark constitutes the rear range-light. Approaching mariners know they are centered on the channel when the two range lights are aligned one behind the other.

In addition to the existing 1854 and 1890 towers and two range lights, the Vinga Light Station also features a host of other structures including a large, red, square-pyramidal daymark constructed near the lighthouse in the early 19th century. The surrounding "light keepers village" consists of several keeper's dwellings, a ship traffic control center, and an assortment of various support structures. Readily accessible by passenger ferry from Göteborg, the Vinga Light Station is one the most popular tourist attractions along the Swedish coast.



Lighthouse intern Ashley Wilt with Bob Callister

As many of you are aware, the faltering economy has been especially hard on educational organizations throughout the State including those in Volusia and surrounding counties. Faced with significant budgetary cuts, school boards have been forced to reduce or eliminate many programs that have been deemed non-essential including field trips. As a result, the Lighthouse hosted only one public school and eight private schools during the past quarter. Although we do not anticipate school group visitation to increase in the foreseeable future, the Association has been working hard to address the situation by developing several new and exciting educational outreach programs.

As many of our readers may remember from our January 2009 newsletter, the Preservation Association announced that Ashley Wilt, a history student from the University of Central Florida, would be completing her senior internship her at the Ponce Inlet Light Station. Since that time, Ms. Wilt has been working with Program Manager Bob Callister and volunteer John Mann in the development of a new educational outreach program that will be taken to local schools and presented to classes that are unable to come to the lighthouse.

The completed program will include three theme-oriented workshops. Each workshop will be comprised of several educational activities that address each theme. Participating teachers will be able to select any workshop from the program including: What is a Lighthouse?, Living at the Lighthouse, and Keepers' Duties by Night and Day.

With an anticipated length of 40 minutes, each workshop will take no more than a single class period to complete so as to allow for greater accessibility and scheduling flexibility. Participating teachers will be provided with a workshop lesson plan that will include an outline of all activities, procedural directions, and applicable Sunshine State Standards. Scheduled for completion in April, this new educational outreach program will be available to all local schools at the beginning of the 2009-2010 academic school year.

An extra Girl Scout Day was held for two large Girl Scout groups January 24th. Eighty-six Girl Scouts registered for this event and worked on the requirements for their Brownie Try-It badge, Junior Lighthouse Badge, and Cadet Lighthouse Interest Project Badge. Our thanks go out to volunteers Allen Bestwick, Bonnie Egertson, Joan Griffith, Art Hahn, Gerry Harris, Theresa Helfrey, Tom Hellem, Helen Magale, John & Jackie Mann, Elizabeth Peitz, Jan Reece, and Dawn White for helping the Girl Scouts have a fun-filled experience at the Lighthouse.

The Ponce Inlet Lighthouse held its fourth annual Beach Racing Day on February 13th with resounding success. As with all of our past Beach Racing events, Lighthouse visitors were given the unique opportunity to meet scores of drivers, mechanics, and owners from the early days of racing and examine many of the cars that once raced around the treacherous oval track in Ponce Inlet. Race fans reveled in the memories of these historic racing pioneers, took photographs, and received autographs from some of sport's most prominent figures from 50 years ago.

The Association's March 11th Home School Day sold out in less than six hours proving once again just how popular this educational event has become over the years. 110 home school students laundered, sewed, and gardened their way through the day to learn what life was like for lighthouse families a hundred years ago. As with our past home school events, we heard nothing but laudatory comments from parents and participants alike. Our thanks go out to more than 25 volunteers who spent the day enjoying the workshops right along with the home school students.

The Association is always on the lookout for dedicated individuals who are interested in teaching young and mature alike about the rich social and maritime history of the Ponce de Leon Inlet Lighthouse. Those wishing to join the Lighthouse's "family" of volunteers are encouraged to contact Programs Manager Bob Callister at (386) 761-1821 or via email at bobcallister@ponceinlet.org. Snow-birds are welcome!

Object of the Quarter

Kinnaird Head Lighthouse, Scotland, clockwork weight cables in weight well

All lighthouse beacons possess a unique nighttime appearance called a characteristic. A beacon's characteristic can be that of a fixed steady light, a flashing light, a colored light, or a combination of all three. Flashing characteristics were originally achieved by means of glass "bulls-eye" panels set into a lens that focused the light generated by a central lamp into concentrated beams. The beacon would appear to flash whenever one of the bulls-eyes rotated past a mariner's field of vision. The beacon's unique flash pattern was determined by the number of bulls-eye panels installed in the lens and the speed at which the lens rotated.

Turn of the century urban development, the wide spread use of the incandescent light bulb, and the construction of taller and taller buildings along the coast made lighthouses with fixed lenses increasingly difficult to identify. Many of these, including the one at Ponce Inlet, were assigned new lenses that exhibited flashing characteristics. Rotation for many of these beacons was achieved using electric motors. But before sources of electricity were available at light stations, the rotation of the lens was accomplished by means of a clockwork mechanism similar to that of a grandfather clock.

A third order clockwork mechanism has been added to the lens exhibit

A rotating lens was usually seated on ball bearings or chariot wheels. In some lighthouses, the lens would float in a basin filled with mercury. The clockwork mechanism that rotated the lens was powered by heavy weights that descended through the center of the spiral staircase or through a shaft located within the tower wall. When the clockwork weights completed their descent, the keeper at the top of the tower would crank them back up again. It was typical to set the speed of descent so that the keeper was forced to crank the weights up every hour in order to keep the lens rotating. This would ensure that the keeper remained awake throughout his watch.

Sometimes the weight cables would wear out and snap, dropping the heavy weight to the ground floor far below. Lighthouse architects attempted to minimize the damage created by falling weights with sand filled pits located in the center of tower floor. Designed to provide falling objects with a safe place to land, these unique weight wells undoubtedly saved more than one floor from sustaining considerable damage.

The weight-driven clockwork mechanism in our collection was designed to rotate a lighthouse lens of the third order or smaller. It dates from the late 19th century and is made of bronze and brass. It is now on display in the Lens Exhibit Building.

Thank You

We would like to thank the Newport County, Rhode Island, Amateur Radio Club for the donation of a 1920s spark transmitter and Morse code key. The spark transmitter is a device for generating radio frequency electromagnetic waves. Two conducting electrodes are separated by a gap. When a sufficiently high voltage is applied, a spark will bridge this gap, ionizing the air and reducing its electrical resistance. This allows an electric current to flow and a Morse code transmission to be made. These artifacts represent equipment that may well have been used at Mosquito Inlet in its early years.

Volunteer docent Allen Bestwick has once again provided us with items and information to use in our education program. His latest contribution to our radio room exhibit is a reproduction of a World War II "foxhole" radio. Using 1940s materials, including the core from a roll of 1940s toilet paper, Allen has recreated something that many battlefield soldiers would have made from available materials. Visit our radio beacon exhibit to see both the spark transmitter and the radio.

In Memoriam Erma Doherty

The Ponce de Leon Inlet Lighthouse Preservation Association is sad to report that Erma Doherty, a founding member of the Association, passed away on February 7th, 2009, at the age of 104. Born in Dewitt County, Illinois, in 1904, Mrs. Doherty moved to Florida with her husband Charles following his retirement from the Chicago Police Department. Working as a nurse for many years, it comes as no surprise that Erma is remembered as a kind and caring woman by her many friends and neighbors in Ponce Inlet. Very active in the local community, Erma Doherty was a member of the Ponce Inlet Women's Club, a parishioner at Epiphany Catholic Church in Port Orange, and one of the Preservation Association's founding members. Erma worked with her husband and other local residents to found the town of Ponce Inlet and was instrumental in convincing the Department of the Interior to transfer ownership of the historic Ponce de Leon Inlet Light Station to the Town in 1972. Association board members Tony Girolami, Earl and Gladys Davis, and Ann Caneer all recall Erma's kindness, sincerity, and exceptional baking skills. Mrs. Doherty's love for the Lighthouse was evident in her dedication to saving the historic light station, her beautiful paintings of the tower and grounds, and the countless volunteer hours spent in the gift shop collecting 25¢ admission fees. Erma returned to Illinois in 2002 to be closer to her relatives. Mrs. Doherty's family has requested that memorial contributions be directed to the Ponce de Leon Inlet Lighthouse. Those wishing to make a donation in her name may do so online at www.poncelighthousestore.org.

Join the Ponce de Leon Inlet Lighthouse Preservation Association

A general annual membership includes:

- Free admission to the museum and lighthouse during regular hours of operation
- 10 percent discount in the museum gift shop and online store
- One subscription to The Light Station quarterly newsletter
- Invitations to special events
- Volunteer opportunities

Membership categories:

General $20
- The benefits listed above for one individual

Senior. $10
- All privileges of General Membership for one individual 62 years or older

Student. $10
- All privileges of General Membership for one individual 12 years or older with a valid student identification

Family $40
- All privileges of General Membership for the immediate family
- Immediate family is limited to one or two adults and your children under age 18. Grandchildren are not eligible.
- You will be issued one membership card for each parent, and each card will list the names of your children.
- Child under 12 must be accompanied by an adult

2nd Assistant Keeper $100
- All privileges of General or Family Membership
- Recognition of your membership in the quarterly newsletters' New Keepers List

1st Assistant Keeper $200
- All privileges of 2nd Assistant Membership
- Two gift General Memberships
- Recognition of your support in the quarterly newsletters' 1st Assistant Keeper List

Principal Keeper. $500
- All privileges of 1st Assistant Membership
- A personalized guided tour of the Light Station
- Recognition of your support in the quarterly newsletters' Principal Keeper List

Corporate Lampist $500
- All privileges of General or Family Membership for up to five company principals
- A personalized guided tour of the Light Station
- Use of the Light Station's conference room for one meeting.
- Recognition of your companies support in the quarterly newsletters' Corporate Lampist List

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Please complete the entire form to enroll, or join online at www.poncelighthousestore.org.

Select type of membership:

- ❑ General $20
- ❑ Senior $10
- ❑ Student (submit copy of ID) $10
- ❑ Family $40
  - ❑ Gift Membership From: _____
  - ❑ Renewal
- ❑ 2nd Assistant Keeper $100
- ❑ 1st Assistant Keeper $200
- ❑ Principal Keeper $500
- ❑ Corporate Lampist. $500

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Children: _____

(List any additional names on a separate sheet.)

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Or, make check payable to:

Ponce de Leon Inlet Lighthouse Preservation Association, Inc.
4931 S. Peninsula Dr., Ponce Inlet, FL 32127

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Florida: A Journey through its Colorful Past

Learn the interesting history of the Sunshine State from Pensacola to Daytona Beach to Key West. Narrative text and interesting pictures from yesterday an today make this hardcover book a must have for lovers of Florida history.
Item #: 865 Price: $24.95

The Lighthouse Keeper's Daughter

Follow the story of Miranda, the Lighthouse Keeper's daughter, in this wonderfully illustrated hardback book as she fights to keep the light lit in her father's absence despite the brutal weather and her own illness.
Item #: 0165 Price: $15.95

Ladies Waffle Tee with Hoodie

Featuring a wonderful winged nautical design beneath a Ponce Inlet Florida banner, this unique long-sleeve tee provides just enough warmth to keep you comfortable on a chilly day. Available in Glacier Blue, Plum, and Mocha. Please indicate desired color and size when ordering.
Available Sizes:
Medium – Extra Large Price: 18.99
Extra-Extra Large: Price: 19.99

Lenticular Ponce Inlet Lighthouse Print

This unique 8" x 10" lenticular print of the Ponce de Leon Inlet Lighthouse features a beautiful day and nighttime image of the historic tower. Turn it one way and the image of the tower appears against the blue Florida sky. Turn it the other way and the glow of the brilliant beacon's radiant beams cut through the dark of night. A wonderful gift for lighthouse lovers everywhere.
Item #: 0035 Price: $11.99

Sea Biscuit Seahorse Pitchers

Measuring 8.75"x 8.25"x 5.38", this whimsical ceramic pitcher featuring a colorful image of a seahorse will bring the magic of the sea to your next dinner party or social gathering.
Item #: 2550 Price: $36.99

Ponce Inlet Lighthouse Cutting Board

This beautiful glass 12" x 15" cutting board features Ponce de Leon Inlet Lighthouse. Custom made for the Preservation Association, this unique piece is available only through the Lighthouse Gift Shop.
Item #: 3725 Price: $19.99

Colorful "Miss Lorelie" Fish Salt and Pepper Shakers

Spice up your life with this whimsical salt and pepper set by Diane Artware featuring tropic fish and hibiscus flowers. Part of the Miss Lorelie collection.

Special Note: 7'x9'x5' matching teapot also available (Item #: 2490) for $32.99

Item #: 2494 Price: $18.99

Miss Lorelie Sugar Bowl and Creamer

Matching sugar and creamer bowls are a continuation of the popular Miss Lorelie ceramic series Diane Artware. Both pieces measure 5.38x7x3.64" and feature beautiful tropical fish behind hibiscus flowers.
Sugar Bowl: Item #: 2590 Price: $17.99
Creamer: Item #: 2592 Price: $17.99

The Ponce de Leon Inlet Lighthouse Gift Shop specializes in unique lighthouse and nautical themed gifts for people of all ages. Our wide selection includes clothing, house wares, toys, and collectibles including a wide selection of Harbour Lights and other miniatures. Customers may also shop online at www.PonceLighthouseStore.org, and place orders by phone at (386) 761-1821 ext. 21.

Please contact the Gift Shop at (386) 761-1821 or via email at connie@ponceinlet.org for more information. Usual UPS shipping charges and a $4.00 handling fee apply to all orders.

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