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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.

From the Executive Director

Dear Members.

November 1st marks the 124th anniversary of the Ponce de Leon Inlet Light Station. For nearly one and quarter centuries, the tower's beacon has guided mariners along the Florida coast and through the treacherous sandbars of the inlet once referred to as Los Mosquitoes. Maintained by the United States Light House Establishment from 1887 until 1939, this historic beacon has remained under the conscientious care of the Ponce de Leon Inlet Lighthouse Preservation Association since its decommissioning by the United States Coast Guard in 1970.

We are pleased to announce the completion of the Principal Keeper's bedroom restoration project and the subsequent installation of the museum's newest interactive exhibit Reflections on Light. Located in the newly restored space, Reflections on Light explores the science of light and lighthouse illumination. We are confident this exciting addition is sure to become one the museum's most popular offerings.

With the restoration of the Principal Keeper's bedroom complete, the Preservation Association has begun the next phase of its multi-year plan to preserve the Principal Keeper's dwelling and rehabilitate its interior spaces. The upcoming months will witness extensive work within the Principal Keeper's parlor. Home to the museum's Native American exhibit, staff will restore the room's plaster ceiling, walls, windows, and doors, and refinish the room's historic pine floors.

Across the yard, the First Assistant Keeper's Dwelling will also undergo extensive work in the coming year. Scheduled for completion during Fiscal Year 2012-13, the complete restoration of the Gladys Meyer Davis House will include re-pointing of the building's exterior masonry walls and chimneys, as well as restoring all interior plaster walls, fireplaces, hearths, floors, doors, and windows. As the only

non-publically accessible historic building on site, the First Assistant Keeper's house provides visitors with the opportunity to examine what it was like to live in coastal Florida before electricity and other modern conveniences.

Due to the escalating cost associated with proper restoration and preservation and the continued decline in the availability of government grants, the Association turns to you its members for much needed financial assistance. There are many ways to show your appreciation, dedication, and support. A donation by check or credit card can be returned in the enclosed envelope. Ask a neighbor to become a member of the Lighthouse, or purchase a membership for a friend or family member. Our online store provides a safe and convenient way to process your choice of support.

As the Lighthouse adapts to meet the challenges of the 21st century, we remain committed to our mission and to the multiple communities that we serve — locally, regionally, nationally and globally. Whether on-site, via the web, or through educational outreach, the Association will continue to foster a wholesome, familyoriented environment that encourages people to come together to discover and appreciate our unique and fascinating history.

On behalf of the Association's Board of Trustees, I would like to express my heartfelt appreciation, for your continued membership, support, and trust. Your gift, along with the gifts of others, will help us to ensure that this beacon of hope continues to shine for generations to come.

Respectfully,

Junnlaugsson 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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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:

Oct. 17, 2011	Board of Trustees and
Monday	Quarterly Membership Meeting
Nov. 21, 2011 Monday	Board of Trustees Meeting

Dec. 19, 2011 Board of Trustees Meeting Monday

All meetings are held in the Gift Shop CONFERENCE ROOM.

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Keeper Listing

CORPORATE LAMPISTS

Brochure Displays, Inc. DAYTONA BEACH, FL

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PONCE INLET, FL

LIGHTHOUSE EVENTS OCTOBER-DECEMBER 2011

families over 120 years ago.

advanced registration is required.

p.m. (www.poncelighthousestore.org).

Oct 20–23 Biketoberfest

(THU-SUN) 12:00 - 2:00 PM

Nov 3 (Thu)

10:00 AM - 3:00 PM

Nov 25 (\mathbf{FRI})

10:00 AM - 2:00 PM

DEC 27

THANKSGIVING GIFTS AT THE LIGHTHOUSE

details. Online registration begins promptly on October 4, 2011 at 1:00

See turn-of-the-century household items at the Artifact Table, talk with

the "Old Lighthouse Keeper" in his office, and listen to a crystal radio

set from the top of the tower. Climb the tallest lighthouse in Florida

All activities are included with the price of regular admission, no

6TH ANNUAL HOME SCHOOL DAY

and tour the historic museum buildings where keepers lived with their

Attention Home School Students! Join us on November 3rd for our 6th

Annual Home School Day. Enjoy hands-on educational activities and

by former teachers and school administrators. Special admission

charges apply and advanced registration is required. Contact Bob Callister at bobcallister@ponceinlet.org or at (386) 761-1821 ext. 18 for

workshops at the Ponce Inlet Lighthouse.All activities are developed

Participate in family-oriented activities and try your hand at making authentic old fashioned ornaments. Visit with the "Old Lighthouse Keeper" and learn about turn-of-the-century life at the historic Ponce Inlet Lighthouse.

All activities are included with the price of regular admission, no advanced registration is required.

Winter Holiday Program

Ring in the new year with a trip to the Ponce Inlet Lighthouse on December 27th. Participate in family-oriented activities including the Artifact Table and Kids Crafts. Visit with the "Old Lighthouse Keeper" and learn about turn-of-the-century life at the historic Ponce Inlet Lighthouse.

All activities are included with the price of regular admission, no advanced registration is required.

CLIMB TO THE MOON EVENT CALENDAR OCT 12 (WED) Climb to the Moon at Florida's tallest lighthouse! Treat your significant



other, family, and friends to breathtaking views of the ocean, beach, and coastal wetlands under the golden glow of the setting sun. Nov 10 (Thu) Toast the full moon as it rises above the distant horizon with a

DEC IO (SAT) 4:45 – 6:45 рм

4:45 — 6:45 рм

sparkling beverage and enjoy panoramic views of the World's Most Famous Beach under its silvery light. Join the Old Lighthouse Keeper as he leads you on your journey into the past and discover the unique history of this National Historic Landmark.

Prices are \$20 per person for Association Members and \$25 per person for non-members. Participation is limited to 25 people per event. Contact Mary at (386) 761-1821 ext. 10 or via email at mary@ ponceinlet.org to learn more about this special opportunity. Additional information about the new Climb to the Moon program may also be found online at www.ponceinlet.org.

2011–2012 Hours of Operation

Normal Hours of Operation

SEP 6, 2011 – MAY 27, 2012 Open daily from 10:00 a.m. until 6:00 p.m. (last adm. at 5:00 p.m.)

Special Hours of Operation Nov 24, 2011 (Thu) **THANKSGIVING DAY**

	Closed in Observance of Holiday
Nov 25 & 26, 2011	Thanksgiving Weekend Extended Hours
(Fri & Sat)	Open 10:00 a.m. until 7:00 p.m. (last adm. at 6:00 p.m.)
Dec 24, 2011 (Sat)	Christmas Eve Early Close
	Open 10:00 a.m. until 4:00 p.m. (last Admission at 3:00 p.m.)
Dec 25, 2011 (Sun)	Christmas Day
	Closed in Observance of Holiday
Nov 25–27, 2011	Christmas Holiday Extended Hours
(MON-WED)	Open 10:00 a.m. until 7:00 p.m. (last adm. at 6:00 p.m.)

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10:00 AM - 2:00 PM

PONCE INLET, FL Bennett Brothers Construction

Feature Article

Lighthouses For Airplanes Revisited: The Montana Lighted Airways

Since its opening in early 2010, well over 200,000 visitors have seen the Ponce de Leon Inlet Light Station's exhibit *Lighthouses for Airplanes*. This exhibit, which also includes the history of early aviation in the Daytona Beach area, chronicles the

initial developments of aviation in the United States and the establishment of a system of lighted airways that covered the country and enabled pilots to navigate at night and in bad weather by following a trail of navigational beacons through the dark.

In the early 1920s, the War Department had requested the United States Lighthouse Service (USLHS) to help develop beacons that would shine skyward for use as guideposts by pilots, who had at that time only their compasses and visual skills for navigation. Pilots had been using lighthouses as markers since the earliest days of aviation. The Lighthouse Service was already equipped with structures, beacons, and a system of districts that could, it was hoped, easily and with minimal expense be adapted to provide more effective navigational landmarks for pilots.

During the 1920s and 1930s, hundreds of beacons were installed in an expanding network

of thousands of miles of air routes. The Lighthouse Service Airways Division had an active part in the design development of many types of airway and airport lighting, and Lighthouse Service engineers and mechanics worked to oversee and advise on



Lighthouses for Airplanes exhibit at the Ponce Inlet Lighthouse. From left to right: Sperry AGA landingfield flood light, FAA Code Beacon, DCB-24

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the installation and maintenance of the new air route beacons.

In a report dated December 4, 1928, F C. Hingsburg, the USLHS Airways Division Chief Engineer, explained that night flying

> was essential for successful air transportation operations in the United States, as the basic source of revenue was the transportation of air and express mail which required night flying to be profitable. Lights had already been installed on more than 7500 miles of airways, and an additional 4000 miles were being lighted during the fiscal year ending June 1929. Those additional miles would include the completion of the final leg of the transcontinental lighting system from Salt Lake City to San Francisco as well as feeder routes in the western states.

Hingsburg went on to outline the dangers of night flying including poor visibility, imperfect observation of weather conditions by the pilot, and the prevalence of difficult weather conditions such as fog during the night:

"To reduce these bazards, the Air Commerce Act (1926) authorized the establishment of airways equipped with air navigation facilities. The

airways are selected to follow the route offering the best flying conditions between the designated airports and are provided with intermediate landing fields approximately 30 miles apart to provide safe landing places under conditions of stress of weather or mechanical troubles. One company flying 1,500,000 miles had 420 forced landings due to adverse weather and 55 due to mechanical and other difficulties. A forced landing due to impossible flying weather was made for every 1350 miles of flight and a forced landing due to mechanical or other reasons for every 27,000 miles of flight. The air navigation facilities consist of route markers and landing field markers for day flying, an airway lighting system for night flying, a weather reporting and forecast system under the Weather Bureau, a communications system for the exchange

Standard Airway beacon installation, 1931. National Archives, USLHS

of weather and other information over the airway, radio direction for the guidance of airplanes over the lighted airway and radio-telephone communications to aircraft in flight...A high percentage of night flying efficiency coupled with safety will require the combined use of all these facilities, properly coordinated."

Terminal airfields were lit according to a standard plan including an airport beacon to identify the facility at long range, a boundary lighting system to outline the landing areas, red obstruction lights, green range lights on the safe approaches, a lighted wind indicator to show wind direction and velocity, floodlights for hangars and buildings, floodlights to illuminate the landing area, and ceiling lights and height indicators for pilots. Unmanned and lighted intermediate landing fields were spaced along the air route to provide emergency landing facilities between the terminal fields, and navigational lights on towers were spaced along the air route allowing pilots to visually navigate along a specific route without fear of flying off course. By 1929, two-way radio communications and radio beacons were also part of this network of airways and airfields, but pilots found that visual navigation was often preferable.

Airways lighting was designed for poor visibility flying with lighted beacon towers spaced every 10 miles. At the top of each steel tower was a high intensity 24-inch revolving beacon with a 500 or 1000 watt lamp that could be seen at a distance of 40 miles in clear weather. Each revolving beacon had an accompanying 100,000 candlepower course light with a 500 watt lamp that blinked a code signal enabling pilots to identify the tower and air route.



Typical 51 foot tower with rotating searchlight



DCB-24 INCH

C. 1931

ROTATING BEACON,



DCB-36 AEROBEACON





NATIONAL PARKS AIRWAYS 1928. ED COATES COLLECTION

Red course lights were used on towers that had no nearby airfield, and yellow or green lights were used on towers with adjacent airfields. Lights were slightly elevated above the horizon to show pilots the greatest candlepower when they were above the beacon at an altitude of 500-1500 feet. The steel towers were generally 51 feet in height, although towers could be shorter or taller as the route terrain demanded.

Towers that could not be connected to a local electrical grid were usually powered by gasoline- driven generating plants or by acetylene gas. The generator plant or the gas cylinders would be stored in a shed called the power house. In remote areas, sheds might also be constructed as shelters for maintenance workers. To serve as day markers, large identifying numbers and letters were painted on the roof of

the power house, and a large concrete arrow pointing the way to the next higher numbered beacon would be laid out on the ground near the tower. In some cases the tower was built on an arrow-shaped slab that was painted yellow.

An improved acetylene route beacon was developed by the Lighthouse Service Airways Division for isolated sites. It combined railroad signal lighting practice with long range marinestyle lighting. Two lanterns were used, one being mounted above the other. The top lantern was an azimuth and off-course light with a separate flasher, piping, and gas supply. These lights could go six months without service and were spaced 3 miles apart wherever possible.

It was quite exciting for the Ponce Inlet Lighthouse staff to learn that thanks to the efforts of concerned aviators a portion of the original lighted airways system is still alive and well in Montana. The website for the State of Montana says: Today, Montana is the only state that still utilizes part of this bistoric network through our rugged western mountains. (Aeronautics) Division personnel climb and maintain approximately 19 of

these beacons on a regular schedule, also providing ownership and ground leases for their operation.

The Montana lighted airway was part of the final leg of development for the transcontinental air route begun in the early 1920s. From 1928 through 1931, intermediate landing fields for the Great Falls, Montana, to Salt Lake City, Utah, airway were planned, surveyed, cleared and installed. In Montana, these sites included Monida, Dell, Dillon, Twin Bridges, and Piedmont (Whitehall Field), with plans and surveys being made for facilities that would be built at Armstead, Boulder, Mitchell, and Cascade. These fields would be connected by a series of navigational beacons on towers ranging from 12 to 90 feet tall. In a November 13, 1929, letter from Airways Engineer W. E. Kline to the Commissioner of Lighthouses, concerns were raised about remote portions of the route. This letter also

wrote:

indicates that wind-powered

generators were used on some

of these beacons. The engineer

"It would have been entirely

impractical to install a B Type Beacon at Site 12-A without

the erection of a Caretaker's dwelling as it will be practically

impossible to reach this site

during the winter months

except on snow shoes. This

office recommended a standard

power plant house on top of mountain at location in order

that a Mechanician, in the

event that he would have to

spend a night in this location,

would have some place to sleep.

It will also provide necessary

housing for storage battery. From all indications, there

will be sufficient wind at this

location to provide sufficient

current to keep a light in

A December 6, 1929, telegram

from a USLHS Airways Division

engineer in Salt Lake City to the

Commissioner of Lighthouses

gives an idea of the cost of

erecting a tower and power

house for one of these airways

RECEIVED FOR ERECTION OF

AEROLECTRIC TOWER AND

operation."

beacons:

"FOLLOWING BIDS

FURNISHING ERECTING AND PAINTING

POWER HOUSE FOR SITE TWELVE



Montana lighted airway beacon tower. *Courtesy of Mike Rogan*



National Parks Airways was the first in Montana to receive an airmail contract. *Michael Dawes Collection*

A SALT LAKE GREAT FALLS AIRWAY



Wolf Creek beacon and nearby shelter for maintenance workers. *Courtesy of Mike Rogan*

>> CONTINUED ON PAGE 6

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Feature Article, continued



1943 PILOT'S SECTIONAL CHART SHOWING AIR ROUTE FROM BUTTE TO HELENA TO GREAT FALLS. BEACONS APPEAR AS SMALL STARS. THE ACCOMPANYING MORSE CODE SIGNALS ARE SHOWN NEAR EACH STAR. *COURTESY OF MIKE ROGAN*

BOWERS BUILDING COMPANY SIX HUNDRED NINETY FIVE DOLLARS STOP B O SIEGFUS FOURTEEN HUNDRED DOLLARS STOP REQUEST AUTHORITY ACCEPT BID OF BOWERS BUILDING COMPANY TO ENABLE CONSTRUCTION TO PROCEED IMMEDIATELY."

In his book Montana and the Sky, Frank W. Wiley describes flying in Montana before the network of lighted airways and lighted airfields was installed. "I remember flying a Waco 10 into Billings after dark one night in 1927 and circling the Westover Garage until Bob (Westover) came out and started for the airport. I then returned to the airport where I circled some more, wondering if I had enough gasoline to stay up until he could drive up and use his car lights to illuminate the landing field. It so happened that a county commissioner, driving along a road adjoining the airport, realized my predicament and placed bis car in a position so that I could use his lights to land by. Bob showed up shortly after, helped me tie the airplane down, and furnished me transportation into town."

Montana was served by a small number of local airlines in the late 1920s. Many of the Montana pilots had been inspired by Charles Lindbergh's 1927 visit to the state as part of his nation-wide tour. Plans for regular air service were being made in Great Falls, Miles City, Billings, Helena, and Butte. One of the small airlines serving this area was National Parks Airlines (NPA). Founded in 1927-28, its planes shuttled between Salt Lake, Great Falls, and Glacier Park, with stops in Dillon, Butte, and Helena.

In 1928, National Parks became the first scheduled airline in Montana to receive an airmail contract. Frank Wiley served as a reserve pilot for NPA and wrote this note about his experiences. *"I well remember the National Parks boys airmailing, with their own money, telephone books stolen from*



Aviation Support Officer Mike Rogan and a snowencased beacon. *Courtesy of Mike Rogan*

their botel rooms to help keep the poundage up in these economically precarious days of early airmail subsidy."

Wiley also wrote about the installation of radio equipment in National Parks' planes. The background static was extremely annoying, and on one early flight the distracted pilot, Hank Hollenbeck, put on his headphones to hear that he had actually taken off leaving the all-important mail sacks behind.

Once mail, no matter what its origins, was being delivered regularly by air, it became even more crucial to have a lighted route and lighted airfields for night flying. The importance of this mail contract is illustrated by correspondence in early 1930. A January 25, 1930, letter from USLHS Airways Engineer W. E Kline to F. C. Hingsburg, Commissioner of Lighthouses in Washington, DC, suggested that completed sites along the Great Falls-Salt Lake air route should be left dark until all the sites were ready. Kline reasoned that an incomplete airway would not be used and it would be an unnecessary expense. On January 30th, Hingsburg replied to Kline in Salt Lake City advising him to confer with National Parks Airways to see which sites they desired to have activated immediately.

Also in 1928, the Department of Commerce through the Bureau of Lighthouses began to examine proposals from various manufacturers to produce suitable beacons for the western lighted airways. The Interflash Signal Corporation of New York City, and the American Gas Accumulator Company of Elizabeth, New Jersey, were the top candidates to produce the acetylene route beacons, and both companies collaborated with the government to design and refine beacons with interchangeable parts that would meet the government specifications.

Extensive design work, correspondence, and unofficial discussions were carried out



Mike Rogan installs a new lamp in the beacon at MacDonald Pass. *Courtesy of Mike Rogan*

before the bidding to supply 100 acetylene airways route beacons would be opened on July 24, 1928. The Acting Commissioner of Lighthouses was now advising the Airways Division that the route beacon lenses should be elevated 2 degrees above the horizontal to make the beacon easier to see without blinding pilots during their approach. It would also be possible to achieve this result by lowering the acetylene flame a bit from the focal plane, and tests of these two options were suggested. Correspondence during June of that year indicates that the final design would incline the lens 2 degrees with respect to the focal plane.

Beacons were tested for their abilities to withstand insects, bad weather, and high interior temperatures. Flashers and burners were also tested and Lighthouse Service "Mechanicians" visited the manufacturers to assess beacons as these were completed and to recommend acceptance or rejection of these. At the same time, locations for the intermediate landing fields and for towers were being surveyed and prepared.

The installations of the intermediate landing fields and airway beacons progressed through 1931, but apparently the airway section between Helena and Great Falls was never lighted. In correspondence between the Great Falls Chamber of Commerce and the Lighthouse Bureau and the office of the Secretary of Commerce, the citizens of Great Falls were informed that the project was on a list of priorities for funding and would have to wait until money was available. The Works Progress Administration (WPA) would possibly provide the installation of these sites. On January 11, 1937, the Assistant Secretary of Commerce stated that a search for beacon locations was underway in advance of the necessary monetary appropriations. Other letters indicate that the WPA would not be able to take on the construction and that funding was also not available for radio beacon stations along the route, but funding



A Montana beacon shack buried in snow. Courtesy o $Mike \ Rogan$

for lights and radio beacons was on the agenda for the 1938 fiscal year. Later, during the World War II years, some of the air fields, like the one at Whitehall, were enlarged and improved.

In 1965, the FAA began reviewing Montana's lighted airways as part of their move to eliminate these navigational aids not just in Montana but over the entire United States. (By 1972, nearly all the lighted beacons in the US were discontinued.) In an unpublished 1994 master's thesis, Embry Riddle Aeronautical University student Brenda Spivey reported on the fate of Montana's lighted airways. Thirtynine remaining beacon lights in Montana were divided into two groups during the 1965 review. One group was considered to have little or no value at their current locations and could be relocated to local airports for better usage. The second group was considered useful for pilots flying Visual Flight Rules (VFR) at night. The FAA surveyed pilots and aviation organizations in Montana but received very few replies. Another nationwide study was also completed in 1965, and as a result the FAA decided to retain only eight Montana beacons and decommission the rest by August of that year.

At the beginning of 1966, the Montana Aeronautics Commission initiated the Montana Beacon System and selected 12 beacons for continuing operation. With the 8 FAA beacons, this gave Montana 20 operational beacons. In 1967, the Montana Aeronautics Commission brought one more beacon back into service bringing the total to 21. Some of the remaining original beacons were dismantled and used for parts while others were donated to museums or localities. The FAA continued its efforts to dismantle the lighted airway system, and during the 1970s, all eight of the federally-maintained beacons in Montana were turned over to the Montana Aeronautics Commission. By 1979, the Commission was responsible for the 13 state beacons plus the 8 former FAA

beacons. In 1984, one of those beacons was decommissioned as a result of the construction of a large overhead power line in the area. Montana was then responsible for the operation and maintenance of 20 beacons.

The existence of these beacons was threatened again in 1984, when the state's Aeronautics Division was searching for ways to cut costs. Another survey was taken concerning the use of the beacons for navigation, and this time the results were clear. The beacons were considered very important by pilots, and the airways system was saved.

It wasn't long before the Montana beacon system faced yet another challenge when a new governor was elected in 1988, and a new Director of the state's Department of Transportation was appointed. The new Director ordered that all the beacons be turned off for the months of November and December in 1991. A huge outcry came from the state's aviation community and the beacons were turned back on.

Despite continuing challenges, Montana is indeed the last state with an operational

lighted airway. There are currently 21 beacons in operation, and many of these have evocative names like Lookout Pass, Whitetail, Homestake Pass, Silver Bow, and Wolf Creek. Three of the 21 are illuminated by DCB-36s and the remainder DCB-24D bv beacons. These styles of rotating beacons were ones that first appeared shortly before 1930, developed in response to the Lighthouse Service' and aeronautical marine needs.

Most of the current Montana beacons were made by Crouse-Hinds or

Westinghouse. In the Montana system, the

DCBs rotate inside glass domes, allowing their

lights to shine skyward. These beacons are

accompanied by fixed and flashing red lights

that point back along the direction of the air

It is quite possible that nobody knows the

Montana beacons better than Mike Rogan,

an Aviation Support Officer with the state's

Department of Transportation Aeronautics

Division who works to maintain the lighted

airway beacons in the rugged weather of

the Continental Divide. After graduating as

route to guide pilots from tower to tower.



The tower at MacDonald Pass near Helena. *Courtesy of Mike Rogan*

an aircraft mechanic, Rogan came to the Aeronautics Division where he was assigned the maintenance of the Strawberry Beacon, a 55 foot tower located near Bozeman. At the time, the beacon was still powered by a propane generator in a small nearby power house.

About caring for the beacons, Rogan says, "We have four people here in the Airports/ Airways Bureau and we divide the beacons among us. I have six of the beacons....We also take care of four airport beacons on our state owned airports and runway lights at four of our airports. I did take care of all of them at one time 25 years ago when all of the old guys were retiring from the Division. It took a lot of my time but I sure got in good shape. Now I am one of the old guys getting ready to retire. Time sure flies, as they say."

When asked about the dangers of working (often in bad weather) to maintain beacons located at the top of tall towers, Rogan recalled, *"I can only remember one time that I tried to climb a tower and decided to come back down. It was a 90-foot tower south of Great Falls that we call Hardy Beacon.*

The wind was blowing 30 to 40 mpb and was really gusty. I made it part way up the tower and I started to lose my cap, so I took it off and put it in my jacket. I proceeded on up another 10 feet or so and the wind started to take my glasses off my face. That's when I made the decision to come back down and save this tower for a calmer day. Other than that it has been pretty much carefree as long as you take your time and don't get in a burry. We didn't use any kind of safety barness until 2006 when we installed safety cables on all the towers."

Hopefully, the importance of the Montana lighted airway system will eventually be officially recognized, and the towers and associated power houses and markers will be recorded as landmarks in both American aviation history and the history of the United States Lighthouse Service.

Thanks go out to Mike Rogan, without whom this article could not have been written.

Ponce de Leon Inlet Light Station • October 2011

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LIGHTHOUSES OF THE WORLD

TANEGASHIMA'S NISHINOOMOTE LIGHTHOUSE

Geographically situated in the East China Sea between the Japanese Archipelago and Philippine Islands, the island of Tanegashima has long served as an important waypoint along Japan's South China Sea trade route. In 1542, Tanegashima witnessed Japan's first contact with Europeans when Portuguese traders stumbled upon the narrow island while on route to Taiwan. As center for European trade the island's name became synonymous with one of the most important of Portuguese trade goods, guns. Until modern times, firearms were colloquially referred to throughout much of Japan as "Tanega-shimas".

Although no longer considered a significant maritime center, Tanegashima Island continues to serve as one of its nation's most important gateways but with one major difference; Tanegashima has turned its attention from the great expanses of the open sea to the star studded voids of outer space.

Established in 1969, with

the founding of the National Space Development Agency of Japan (now the Japanese Aeronautical Exploration Agency), the Tanegashima Space Center (TSC) is the largest of Japan's space development centers and the epicenter of the nation's extensive space program. Activities at TSC include research and development, rocket assembly, testing, and launching, and satellite tracking.

With one foot firmly planted in maritime commerce and the other in the aerospace industry it is only fitting that one of the island's most unique landmarks symbolizes the juxtaposition of Tanegashima's past and present.

Situated at the mouth of Nishinoomote Harbor on the west coast of Tanegashima, the Nishinoomote Lighthouse marks the northwestern terminus of a concrete breakwater protecting vessels within the manmade harbor from the East China Sea. Constructed in 1998, the Nishinoomote Lighthouse is unlike any other in the world. Modeled after a Japanese H-II heavy launch platform, this unique

lighthouse looks more like a wayward rocket from the nearby space center than a maritime aid to navigation.

Standing 49 foot tall, the Nishinoomote Lighthouse is a red iron tower topped with a red lantern room. A pair of 22-foottall red cylinders brackets the tower on either side to complete the H-II facsimile. Operated by the Japanese Coast

Guard's Maritime Safety Agency, this unique aid to navigation features a red flashing light with a focal plane of 59 feet.

OBJECT OF THE QUARTER

This quarter's "object" is not an artifact but an entire exhibition. Several years in the design, planning, and construction, our new permanent exhibit Reflections on Light allows visitors to explore the properties of light and how they are used inside a Fresnel lens. Four hands-on stations guide you to an understanding of how refraction and reflection are used to direct light rays generated by a relatively small light source to create a single strong beam that can be seem far out to sea.

At Station 1, visitors will observe a laser light beam traveling in a straight line from its source and have the opportunity to discover what happens when this light meets and passes at various angles through a denser clear material.

At Station 2, visitors can experiment with a laser beam that can be directed through several types of prisms and a lens.

Station 3 represents the lantern room of a lighthouse where comparisons can be made between the properties of a fixed Fresnel lens and a rotating lens.

Station 4 is a touch screen computer with a variety of programs. Visitors can learn more about the orders or sizes of Fresnel lenses, the various types of these lenses, and the history behind their invention. Last but not least, visitors can also create their own identifying characteristic for a Fresnel lens.

Located in the Principal Keeper's Dwelling, *Reflections on Light* is definitely the place to demystify the inner workings of the magnificent Fresnel lens!







Volunteer News

The Ponce Inlet Lighthouse's everpopular "Climb to the Moon" event will be offered on the evenings of October 12th, November 10th, and December 10th. Limited to only 25 participants, this unique fundraising program provides visitors with the rare opportunity to view spectacular sunsets and moonrises from the gallery deck of Florida's tallest lighthouse.

Join us as we toast the setting sun and snack on delicious Hors d'œuvres as you watch the moon rise above the far horizon. Be sure to tour the historic Lantern Room and learn about the tower's third order Fresnel lens from one of our knowledgeable Lighthouse Keepers.

A favorite of couples and lighthouse enthusiasts, individuals interested in joining us for this unique and picturesque event are encouraged to RSVP with Mary via email at rsvp@ponceinlet.org or by phone at (386) 761-1821 ext. 10. Due to limited availability, the Climb to the Moon event is often sold out so register early. Prices are \$25 for non-members and \$20 for members.

Be sure to join us on October 1st and 2nd during Port Orange Family Days! Held each year at the Port Orange City Center, this unique community event provides families with hours of fun year after year. If you attend, be sure to stop by our tent to learn about lighthouse history, upcoming events, and ongoing lighthouse projects from one of our dedicated volunteers. Offerings will include kid-friendly activities, educational hand-outs, and prize drawings. We hope to see you there.



On November 3, 2011, the Ponce Inlet Lighthouse will host its Sixth Annual Home School Day. Offered each year since 2005, this unique program has become one of the home school community's most popular events. Featuring four new workshops every year, participants are guaranteed to learn something new about lighthouses and maritime history every time they attend..

Due to high demand, Home School Day tickets usually sell out within a few hours so reservations are a must to secure a spot for your child. A promotional email will be sent out to all home school families and support groups stored within our home school data base, on September 1, 2011. Please contact Bob Callister at (386) 761-1821 ext. 18 or via email at bobcallister@ ponceinlet.org if you wish to be added to the home school mailing list. Tickets for the November 3rd Home School Day will be available for purchase online at www. poncelighthousestore.org at 1:00 pm on October 4, 2011.

Did you know that many people kick off their holiday season with a day-after-Thanksgiving trip to the Ponce Inlet









Lighthouse? Avoid the noise and confusion of Black Friday by starting a new family tradition of your own with a visit to the Ponce Inlet Lighthouse during the Thanksgiving holiday weekend. At only \$5 for adults and \$1.50 for children 11 and under, the cost of to visit Lighthouse by a family of four is less than trip to the mall's food court. So avoid the heartburn, sore feet, and empty wallet and make some happy family memories instead.

On behalf of all the volunteers who make these and other lighthouse programs so enjoyable, Happy Holidays and Happy New Year!

EDUCATION NEWS

The Ponce Inlet Lighthouse Recognizes Outstanding Student Achievement at the 2010 Volusia County Social Studies Fair

Each year, the Ponce de Leon Inlet Lighthouse awards student achievement at the Annual Social Studies Fair. Consisting of a free family membership, recognition in the quarterly newsletter, a certificate of achievement, and a \$75 cash prize, this award is presented to the student who creates the best maritime, Florida, or lighthouse history themed project at the elementary, middle, and high school level.

Held in the Mainland High School auditorium this past year, the 2010 Volusia County Social Studies Fair included more than 100 elementary, middle, and high school student exhibits. Each exhibit displayed during the district social studies fair had been nominated by each student's school of record following an exhaustive round of judging at both the individual grade and school-wide level. This year's social studies fair theme was "Debate and Diplomacy in History: Successes, Consequences."

After completing the duties assigned to them as official judges of the 2010 Social Studies Fair, Director of Operations Mike Bennett, Program Manager Bob Callister, and Lighthouse Volunteer John Mann examined student entries that focused on maritime, Florida, or lighthouse history. Although finding all the submitted elementary, middle, and high school projects to be of excellent quality, three stood out above all the rest.



SILVER SANDS MIDDLE SCHOOL STUDENT CLAY PARK, ACCEPTS THE MIDDLE SCHOOL LIGHTHOUSE AWARD FROM PROGRAMS MANAGER BOB CALLISTER FOR HIS "CROSS FLORIDA BARGE CANAL (DITCH DISASTER DEBATE)" PROJECT. CLAY DONATED HIS \$75 CASH AWARD BACK TO THE LIGHTHOUSE!



FATHER LOPEZ CATHOLIC HIGH SCHOOL SOPHOMORE SHELLY PAFFORD RECEIVES THE HIGH SCHOOL PONCE INLET LIGHTHOUSE SOCIAL STUDIES AWARD FOR HER "*INTERNATIONAL WHALING DEBATE*" PROJECT FROM LIGHTHOUSE VOLUNTEER JOHN MANN

A student in Mrs. Linda Szovinky's fifth grade class, Nathanial Jones' winning project addressed the debate raging over the providence of recovered treasure. Titled "Treasure Hunters and the State of Florida: The Conflict over Who Owns the Past," Nathanial's project was extensively researched, well constructed, informative, and relevant to current events. One of the most impressive aspects of Nathanial's project was his ability to clearly communicate the political, historical, and financial issues related to the treasure hunting industry and the providence of recovered artifacts with the judges.

Clay Park's project "*The Cross Florida Barge Canal; the Ditch Disaster Debate*" was awarded the Middle School Lighthouse Social Studies Fair Award. Having traveled the entire length of the canal as part of his research into his project's subject matter, Clay's entry provided a wealth of information regarding the purpose of the Cross-Florida Barge Canal, its construction, and the environmental concerns and funding issues that ultimately killed it. A student in Mr. Rick Ross's sixth grade social studies class, Clay attends Silver Sand's Middle School in Port Orange.

Sophomore, Shelly Pafford was named the third recipient of the Ponce Inlet Lighthouse Social Studies Fair Award for her project on the international whaling industry. Tilted "*The International Whaling Debate*", Ms. Pafford's entry addressed the international debate related to the continuation of commercial whaling by a handful of countries and the passing of international laws to outlaw commercial whaling worldwide. Shelly is a student in Mr. Kelly McCabe's Honors World History Class at Father Lopez High School in Ormond Beach.

Thank You & Wish List

e would like to express our ongoing thanks and appreciation to our Executive Director Emerita Ann Caneer for her ongoing support and her many donations of objects, documents, photographs, and memories.

Our long-term benefactors, Jacques and Marion Jacobsen have again provided us with some wonderful artifacts. These include two uniform insignia from 1915, the founding year of the United States Coast Guard - a Coast Guard insignia and a Chief Petty Officer insignia. The Jacobsens have also provided us with a US Army Artillery officer's hat insignia dating from the Second Seminole War, and two Sea Service uniform jackets from the 1930s – 1940s. We are delighted to have these additions to our collection. Earl and Gladys Davis (Gladys is the daughter of our last civilian keeper) are long-time donors and award-winning volunteers at the Lighthouse. During this quarter, they have donated a replica Bennington Flag, made by the Defiance Flag Company to celebrate the "Spirit of '76." This flag is a version of the American flag associated with the Battle of Bennington which took place in 1777 near the Vermont town that gave the flag its name. The battle proved to be an important victory for the colonists and the flag proved to be a popular design.

Local resident and Gift Shop employee Joanne Roberson has graciously donated a wonderful toy barn, crafted in the early 1920s by her grandfather. Complete with a variety of antique toy animals, miniature furniture, and other accessories, Joanne's generous gift will undoubtedly become one of the most popular displays in the Gladys Meyer Davis House exhibit.

In advance of restoration work in our First Assistant Keeper dwelling, we are searching for authentic late 19th and early 20th century household items, wall art, decorative items, furniture, textiles, and children's toys. A working player piano (antique or reproduction) is also on the list. We are always searching for any Lighthouse Service artifacts including dinner ware, uniform elements, tools, time pieces, lanterns, lamps, stoves, oil containers, brooms, rakes, or anything stamped with the Lighthouse Service or Light House Establishment names.

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:

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

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

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Select type of membership:

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	Student (submit copy of ID)	\$10
	Family	\$40
	 Gift Membership From: Renewal 	
	2nd Assistant Keeper	\$100
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	Principal Keeper	\$500
	Corporate Lampist	\$500
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Ends

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2nd Assistant Keeper \$100

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

1st Assistant Keeper \$200

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- 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

FLORIDA DEPT. OF AGRICULTURE AND CONSUMER SERVICES CHARITABLE ORGANIZATION NUMBER AND DISCLAIMER:

Registration #: CH137

A COPY OF THE OFFICIAL REGISTRATION AND FINANCIAL INFORMATION MAY BE OBTAINED FROM THE DIVISION OF CONSUMER SERVICES BY CALLING TOLL-FREE (800-435-7352) WITHIN THE STATE. REGISTRATION DOES NOT IMPLY ENDORSEMENT, APPROVAL, OR RECOMMENDATION BY THE STATE.

For family memberships, list spouse/partner and all immediate children under eighteen years of age:

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We will contact 1st Assistant Keeper, Principal Keeper or Corporate Lampist members to obtain gift membership and company principal information.

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Limit one coupon per member. Coupon may not be used in conjunction with any other discount. Proof of membership must be shown at time of purchase. Not valid for purchase of Memorial Bricks. Good from October 1, 2011, through December 31, 2011.

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INLET ORNAMENT

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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 cmaroney@ponceinlet.org for more information. Usual UPS shipping charges and a \$4.00 handling fee apply to all orders.

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