

BIG DIAMOND

HILLSBORO
LIGHTHOUSE
PRESERVATION
SOCIETY

October 2015
Volume 18, Number 2

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HILLSBORO LIGHTHOUSE SOCIETY ANNUAL MEETING

The 19th annual membership meeting of the Hillsboro Lighthouse Preservation Society was held on Saturday August 22, 2015. The meeting was hosted by Susanne Williams at the Hillsboro Club adjacent to the lighthouse. The attendees enjoyed excellent food and drink in a beautiful poolside function room with an excellent view of the lighthouse., what a great location!

Attending was **Captain Daniel Youngburg**, the new Commanding Officer of the Resource Division of the U.S. Coast Guard District 7 which the Hillsboro Inlet MWR (Morale, Welfare and Recreation) Station falls under. Also attending were **Deputy Commander Erik Jenson**, **Commander Brian Huff**, District 7 Waterways Management Chief and **Commander Harry Mautte**, our past Officer In Charge of the Station and the Deputy Chief of the Resource Division.

At the meeting updated bylaws were adopted to allow efficient management of the society, the lighthouse and the volunteers. We also elected a new President, Ken Herman whose term will start on January 1st, 2016. Art Makenian will remain as the person in charge of lighthouse maintenance, operation and renovation while Ken picks up the

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WHY THE HILLSBORO INLET LIGHTHOUSE HAS SUCH A STRONG LIGHT

By Art Makenian President, & Preservationist of the Hillsboro Lighthouse

Probably, like most Broward County residents, you are not aware of this Historic landmark which dates back to 1907 when very few buildings were in existence in South Florida. The Hillsboro Inlet Lighthouse was built to close a gap between the Jupiter lighthouse and Cape Florida lighthouse on Biscayan Island, These lights were built to serve the busy Florida East Coast maritime traffic leading to the Gulf of Mexico and Cuba.

In those days, nighttime coastal maritime navigation was strictly dependent on visual light signals from the lighthouses each having a unique signature of light flash beams. Each helmsman knew the different light flashes identifying each lighthouse location on their coastal nautical charts. The lighthouses were placed at a distance so when a ship lost sight of a light signal at her stern, she was capable to capture the new signal from her bow.

This spacing determined his distance parallel to the shore line. The beam length and

(Continued on page 6)

PRESIDENT ELECT KEN HERMAN



Santorini, Greece

FROM THE PRESIDENT

Dear HLPS Volunteer friends and Members.

Thank you for making the 2015 Annual Membership meeting and luncheon such a great success. Of course the principal reason and the credit should go to our HLPS Board member Susanne Williams, General Manager of the Hillsboro Club.

The membership vote was anonymous for our 5th revised HLPS By-Laws. This revision was necessary to bring more in line our way of conducting business at the present, than in the past.

The end of 2015 year will be a leadership transition period. The newly elected President, Ken Herman, will take charge of our organization on January 1st, **2016. I've known Ken way before HLPS was created, I became his neighbor in 1994 when I purchased a piece of property in Hillsboro Shores. It was that same period when Ken and Barhka were becoming parents. Today, both of their children are in college. Amazing how time flies.**

HLPS needs this transition to re-energize our organization and to be led into a new and modern business path. In January 2016, I will be the oldest President of HLPS giving up the office. And if I am not mistaken, Ken will be the youngest **President taking office of HLPS. Ken's honesty, professionalism and energy is just what our organization needs. Good luck Ken, I will be around if I am needed.**

Since you have read our last issue of the Big Diamond. We have accomplished one more preservation task by replacing the entire watch room gallery rails and posts during the month of August, and had it ready for our September public tour. This project was funded in part by the Wye Foundation of Lighthouse Point. **Thank You! The Wye Family is fond of the Preservation Society's hard work.**

As I am writing this letter, and once again, I am deeply concerned about the serious high land erosion on the south footing of the lighthouse. Although the beach sand comes and goes and gets restored or nourished throughout the years, the basic 3 acer high land has now eroded down to 2. This high land erosion should be restored and should never be allowed to be less than the original size. I am writing a report on this subject which you will be able to read in our next Big Diamond issue. Thank you for all the support you gave me throughout the years.

Art Makenian

The mission of the Hillsboro Lighthouse Preservation Society is to promote the history of the Hillsboro Inlet Light Station and the Hillsboro Inlet area through preservation of structures and artifacts, education and public access tours.

HLPS OFFICERS

Arthur A. Makenian
President

Daniel E. Gordon
First Vice President

Frederick R. MacLean Jr.
Second Vice President

Charles J. Seitz
Treasurer

John (Jack) Burrie
Secretary

Edward J. Chandler Esq.
Counsel

Dave Noderer
Editor

Ken Herman
Webmaster / President Elect

2015 / 2016 HILLSBORO LIGHT STATION TOUR SCHEDULE

Date	Tour Boat Dock	Sailing Times						
Sunday Nov 8, 2015 *	Alsdorf Park	8:30 am	9:30 am	10:30 am	11:30 am			
Saturday Dec 5 2015	Sands Harbor Resort	8:30 am	9:30 am	10:30 am	11:30 am			
Saturday Jan 9 2016	Alsdorf Park	8:30 am	9:15 am	10:00 am	11:00 am			
Saturday Feb 13 2016	Sands Harbor Resort	9:00 am	10:00 am	11:00 am	12:00 am	1:00 pm	2:00 pm	3:00 pm
Sunday March 6 2016 **	Sands Harbor Resort	9:00 am	10:00 am	11:00 am	12:00 am	1:00 pm	2:00 pm	3:00 pm
Saturday April 9, 2016 ***	Sands Harbor Resort	9:00 am	10:00 am	11:00 am	12:00 am	1:00 pm	2:00 pm	3:00 pm

- * Barefoot Mailman Remembrance Day
- ** Welcome Snowbirds to Hillsboro Lighthouse
- *** Hillsboro Lighthouse 109th Anniversary

HLPS Store Holiday Specials!



HLPS Teddy Bear—He is an 8" tall tie-dye bear wearing a Hillsboro Lighthouse T-shirt \$10.00.

Wooden Ornament-- Oval shape with lighthouse inside 4" by 2 3/4" \$5.00

To purchase these items email Joyce at giftshop@hillsborolighthouse.org



Scan code above or look for "Hillsboro Lighthouse" on facebook.com

Visit our website for lighthouse history and pictures.

HillsboroLighthouse.org

Memorial Bricks for sale. Support HLPS and become a part of the Station's Centennial Patio around the flag pole. Forever!

<http://www.hillsborolighthouse.org/memorial-bricks>

HLPS ANNUAL MEMBER MEETING - 08/22/2015*(continued from Page 1)*

duties of running the organization, activities and volunteers.

Art presented some interesting statistics.. 9,756 people climbed the lighthouse in 2014, that number is expected to pass the 10,000 mark in 2015. HLPS has spent approximately \$250,000 repairing and renovating the lighthouse since 2008.

This year we replaced 21 diamond shaped glass panes in a \$87,500 project jointly funded by the State of Florida. The project came in on time, under budget and the society was able to return part of the allocated money back to the state for other projects. HLPS also just finished replacing the watch room gallery railings at a cost of \$20,000. Work continues to raise funds through grants and gifts with a special thanks to **Debbie Divich** for help writing the grants.

A special award was given recognizing **CDR Harry Mautte** who has been involved with the lighthouse for the past 14 years and is responsible for renovations and ADA compliance conversion of the cottages and is the reason the lighthouse grounds look so beautiful today! Past recipients of this award were CDR Emma Silcox, CDR now CAPT James Puette and Lt Jeff Brooks.

A special presentation of the book, History of the Coast Guard, was made to **Jerry Edelman**. Jerry has been involved in almost every project since 1998. Besides participating in every project, Jerry comes every four day to work at the top of the lighthouse guiding the public, telling stories and pointing out the sharks! Thanks to Jerry from everyone at HLPS!



Barkha and Ken Herman, President Elect



HLPS Annual Member Meeting—08/22/2015—Hillsboro Club

Other awards were:

Judy Knoebel - Manager of the Hillsboro Lighthouse Museum for her outstanding managerial skills.

Steve Smith - Special Assistant for Operating and Maintaining the Hillsboro Lighthouse

Bill Slager - Manager of Public Tours and Special Projects including repairs and preservation.

ERRATA FROM BIG DIAMOND JULY 2015

Apologies from the editor... Part of the lantern room glazing project from the July 2015 Big Diamond was not printed. Included here is the missing part of the article.

The actual lantern Room Glazing project started in September 2014 when all the research, engineering and planning work took place. The Lighthouse being a Coast Guard property, and also being a National Historic Preservation property, HLPS had to comply with many approvals before even considering to start the work. In three short months, all was accomplished, and 22 curved glass panes 32X32 inch, 5/16 inches thick curved diamond shape glass panes were ordered from a local vendor specialized in curving glass sheets.

Before removal and installation of the glass, many procedural rules were required. The Coast Guard Civil Engineering Unit in Miami assisted by, performing tests for mercury and lead content in the area where the volunteers would be exposed on daily basis. Materials and Work Specifications submitted to the Coast Guard Civil Engineering Unit by HLPS were also promptly approved.

The first glass pane was removed and replaced on the 20th of January 2015. While planning for this project HLPS advised the Coast Guard Aids to Navigation office that the nightly light operation would not be interrupted during the entire project. The glass panes had to be removed after dawn and installed before dusk. The classic lens had to be protected during the entire working hours in the lantern room. HLPS volunteers did just that. The last glass pane was installed on the 29th of April 2015, a full month ahead of schedule.

For our preservation team, this was a great logistical achievement and it could only have been done by volunteers. (Commercial contractors would have never agreed to undertake this project without interrupting the daily light operation).

Thank you to all the talented HLPS Volunteer team.

MEET KEN HERMAN, HLPS PRESIDENT ELECT

Ken Herman has been an active volunteer with the lighthouse since 2012 with roles including Official Photographer, Web master, Board Member and volunteer helping out at tours and cleaning the lighthouse lens. In August 2015 Ken was elected as president of the Hillsboro Lighthouse Society effective January 2016.

Ken moved to South Florida with his family in 1970 attended Wilton Manors Elementary, Sunrise Middle, Ft Lauderdale High school and graduated from FAU. In 1991 he moved to Pompano Beach (Hillsboro Shores) just a few blocks from the Hillsboro Lighthouse..

His hobbies are photography, Martial Arts (American Kenpo) and Travel. Long distance bike riding and mountain climbing are other free time activities.

By taking on the role of HLPS President he will offload organizational responsibilities from Art Makenain . Art will be able to fully focus on preservation of the lighthouse and start grooming a successor for that role. Ken will be working to effectively coordinate activities of the growing number of volunteers to fill the expanding responsibilities HLPS has in maintaining the lighthouse and keeping it open to the public.

WHY THE HILLSBORO INLET LIGHTHOUSE HAS SUCH A STRONG LIGHT

(Continued from page 1)

signal light intensity on the horizon determined the distance of the ship from shore, in nautical navigation terms, that is called a fix.

Let's go back to our lighthouse. The reason why our lighthouse has the strongest light beam reach in North America and sometimes in the whole world, is because the distance between the Jupiter Inlet light and Cape Florida light located on Key Biscayne Island is 75 Nautical Miles. At that time, both lights beams had a maximum reach of 17 NM, the dark gap between the two lights was 41 NM, so the new light which had to be placed in between the two lights had to be reaching at least 21 NM to each direction, that would have **illuminated the dark gap and complete the visual reach of the lights.** The U.S. Lighthouse Bureau's choice in that time was to install a tall cast Iron tower equipped with a powerful optics at the Hillsboro River Inlet. The rest is history.

A proven design of a cast iron octagonal, skeletal tower, 147 feet tall was chosen with most technologically **advanced optical system available in the French supplier's inventory.** Why French? Because no other country had the technical and manufacturing capability like France, after all, they invented everything about modern lighthouses.

Russel Wheel Foundry of Detroit, Michigan built the cast iron tower, which was the fifth and the last of these series of lighthouses. The modular cast iron design was the most cost effective, high velocity wind pressure resistant, ease of assembly at a remote site and resistant to beach front environment.

Barbier Benard et Turrene of Paris, France supplied the complete optical system consisting of a gigantic 9 feet in diameter By-valve lens with 356

glass prisms. The lens weighing over 2 metric tons floated on a pool of mercury rotation system. At that time, this lens was the most powerful optic built to amplify and refract a light beam from a lighthouse.

Today, using a tungsten-xenon, 1000 watt lamp light source, The Hillsboro Lighthouse reaches 28 NM, almost half the distance between here and the Grand Bahamas, and is classified as the most powerful light beam in North America.

Tonight if you wish to see that awesome beam of the Hillsboro Lighthouse on your computer screen, please surf to: <http://pompanobeachfl.gov/webcam/webcam.html.php> .

In the event you are interested for more information on this monumental lighthouse, please go to <http://www.hillsborolighthouse.org>.



circa 1919 view to the north from atop the lighthouse

FOR THE LOVE OF SCIENCE AND ART THIS LENS WAS SAVED

By Art Makenian President, & Preservationist of the Hillsboro Lighthouse

This incredible story of the PLANIER lighthouse which it stands on a small island at the entrance of the Bay of Marseille about 13 kilometers south of the old Port. First, I would like to make few points about this 191 foot tall lighthouse, the fourth, but not quite the last one built on that island.

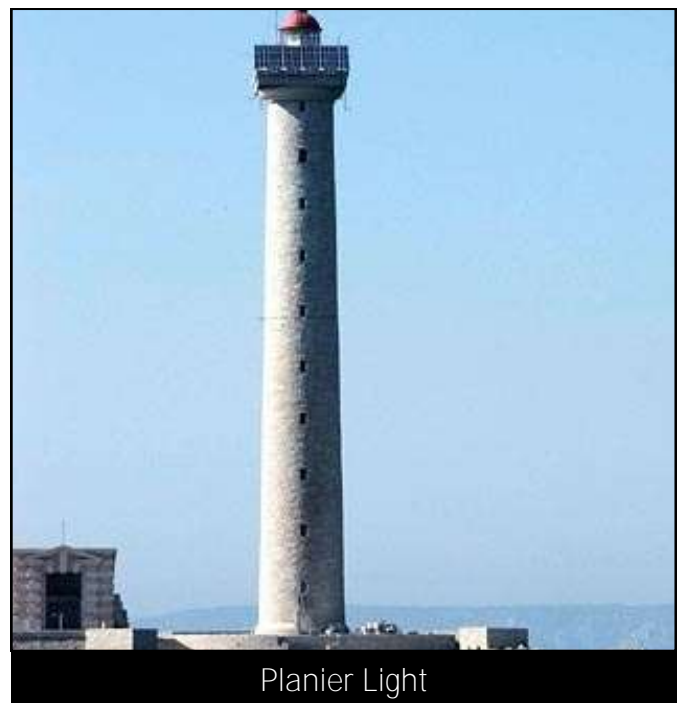
During the last few days of the Nazi occupation of Southern France, Berlin had ordered the evacuating German forces to destroy all the standing lighthouses on the French coastal shores. The PLANIER lighthouse was not an exception. So what really happen?

This is a true story. Briefly, I will go back in history when Professor Augustin Fresnel the French Physicist in 1819 invented the spherical segmented prisms placed in a geometrically aligned form creating a narrow thin lens assembly, thus allowing the light rays to be amplified and refracted to a desired direction. His invention earned him universal fame and the French Government appointed him as an absolute authority of all coastal lighting.

In 1825, while the third PLANIER lighthouse of 119 feet tall was being built, Professor Fresnel convinced the French Lighthouse Board (Phares et Balises), to design and built a new first order sixteen section lens. Sadly, he died in 1827 without seeing his new creation being lit-up. He was only 39 years old and a victim of tuberculosis.



Planier Island



Planier Light

In 1876, the last and the tallest PLANIER lighthouse was built with a new state of the art Fresnel lens. For the first time, the source of light for this new lens was an electric lamp, projecting a light beam as far as 25 nautical miles to the Mediterranean sea.

France was occupied by the German Army during World War II, but not for long. In December 1942, one month after the free zone invasion, Mr. Grand, Director of Port of Marseille, and Mr. Peltier, the Chief Engineer of French Lighthouses (Ponts et Chaussées, Phares et Balises), were contacted by a German Navy Officer, Lieutenant Krull, who was in charge of lighthouses in occupied territories. LT. Krull under orders from Captain Trefftz, the commanding officer of the German Navy Office in Paris, requested to visit the PLANIER lighthouse. The reason given for his visit was the classic Fresnel lens on top of the PLANIER lighthouse. This lens is very unique; only two of these very special lenses were built prior the World War II. The other one, also in France was located in Cape Griz-Nez, where the French Army, were commanded to blow up the lighthouse and the lens to avoid it falling into enemy hands prior evacuating the area.

FOR THE LOVE OF SCIENCE AND ART THIS LENS WAS SAVED (CONT)

LT. Krull was a graduate civil engineer by profession prior to being drafted into the German Navy.

He was well aware of the value of creative engineering and physical art. He also knew the creativity of French engineering and inventions which led France to build lighthouse optics and sell them all over the world. So he proposed to Mr. Grand and Peltier do disassemble the optical components including the classic lens from the top of the PLANIER lighthouse and store it into a secret location prior the Wehrmasht and the SS troops blow up the entire lighthouse. His plan was coordinated fully with his boss, Capt. Trefftz in Paris, and kept off records. Capt. Trefftz was also an engineer.

The optics were carefully disassembled and taken several miles away from the sea shore and stored at a secret location at Luberon around the Cucuron region. In 1947, five years after this incident when France was liberated, the new French lighthouse Board reconstructed the PLANIER lighthouse at its exact location using the same 1876 architectural plans and materials of which it still stands with its old glory.

Sadly this famous lighthouse has been darkened since 2004, due to government budgetary and the high cost of labor. There is at least some hope now. Preservationist groups such as ours are being created not only in France, but all over the world restoring lighthouses. These groups of volunteers will take over the dormant treasures and bring their lights back to life.



Planier Light-Fresnel 16 first order, 16 section lens

Lighthouse Links:

- HLPS: :HillsboroLighthouse.org
- Florida Lighthouse Association : FloridaLighthouses.org
- Florida Keys Reef Lights Foundation : ReefLights.org
- Florida Trust for Historic Preservation: FloridaTrust.org
- National Trust for Historic Preservation : PreservationNation.org

HILLSBORO LIGHTHOUSE MUSEUM IS ENLIGHTENING TOURIST AND LOCALS!

The museum is located at: **Hillsboro Inlet Park, A1A at 2700 N. Ocean Boulevard, Pompano Beach.** It is open Sunday, Tuesday and Thursday - 10:00 am until 2:00 pm. It is also open on Tour days from 9:00 am to 3:00 pm. On most other days you can arrange a private tour by contacting Judy Knoebel at: museum@hillsborolighthouse.org or by phone 954-609-7974.

Since opening in January 2013 there have been over 3,000 visitors. People visited from more than 30 countries including Belize, Brazil, Canada, Cuba, Norway, Russia, Vietnam and New Zealand. Visitors have also come from 44 of our 50 US states and hundreds from Broward County, FL.

Some visitor comments from our Guestbook are: “Awesome”, “Great”, “Amazing”, “Most enlightening”, “Extremely friendly and welcoming staff”, “Great preservation of history”, “Wonderful little museum!”, and “Will come again!”

We are very proud of our loyal volunteers, Jerry Smeitanka, Cindy Malaney, Linda Peck, Mona Silverstein, and Judy Knoebel who keep the Museum open every week. If you are interested in helping out for a 2 hour time slot, please contact Judy at museum@hillsborolighthouse.org or 954-609-7974.



Cindy Malaney with Paul Bradley prints



Jerry Smeitanka with original artwork (for sale)

NEW MEMBERS & RENEWALS— JUNE 2015 TO AUGUST 2015

Join today to help preserve our lighthouse's heritage,:

- A subscription to our newsletter "The Big Diamond"
- Free admission to all tours, programs, and lectures
- Timely updates to events related to the lighthouse

Membership rates:

Individual	\$25.00 / year
Family	\$50.00 / year
Business	\$100.00 / year
Lifetime	\$500.00 or more. Lifetime is a one-time fee

To apply or for more information , please contact: membership@hillsborolighthouse.org

Kimberly Ackel	Marc Diamante	Randy Kelsey
Clinton Adderly	Vincent & Joanne DiGiora	William Kemper
Thomas Allison	Jim & Olga Dilenge	Victoria Kimball
Andy & Marty Anderson	Tim & Tricia Dobbs	Connie King
Ken & Karen Arbuckle	Paul Domashinski	Kristen Koci
Hommas Armillotto	Patty Dunham	Marci Kolondra
Stephen & Sandra Artusi	Stephanie Lee & Cheryl Dunn	Jeff & Sue Krawec
Maria Teresa Back	David & Jamie Duryea	Jarmilla Kubikova
Judith Bakula	Tom Engelhoff	Gwen Kunselman
Horace Bell	NSDAR Lighthouse Point Chapter *	Two Men and a Truck *
Ed Bienkowski	Jennifer Farmer	Mark Lavallea
Darran Blake	Michael Fogarty	Gloria Lee
Victoria Bloomenfeld	CDR International Inc. *	Kelly Lee
Lindy Book **	Lynn Giles	Jonathan Levitz
Bill Bradley	Robert/Beth Glassberg *	Lauren Leway
Mary Brandon	Jaime & Ryan Goldman	Paul Leyva
Gabriela Branisleanu	Ronald H. Goodrow	Anthony Ligorelli
Amy Breslow	Jeff Graham	Jonathan Lobl
Margaret Brock	Danny & Krista Graves	Mark Long
Charlie Brown	Debbie Hanley	Beth MacArthur
Susan Buckhardsmeier	Andrea Harrington	Patrick & Kathleen Mahar
Suzanne Bundy	Alan Harvey	Beth Marten
Loretta Callahan	Michelle Hays	Reed Martin
J.R. Campbell	Michelle Hecht	Ed & Margaret McGrath
John & Donna Carbone	Gary Helf	Mike McTiernan
Edward Carifio	Amy Hernley Matussek	Randy & Bev Meador
Kathryn Carmichael	Tom / Claudette Hertner	Connie Merwine
Ian Carroll	Kristine Hoernemann	Carlie Moore
Debbie Causey	Craig & Laurie Holmes	Dominique Myers
Steve Cavrudatz	Donna Holt	Stan & Sarah Niemczyk
Thomas Christos	Theodore D. Howard, Jr.	Vic Obringer
Robert & Cindy Clauss	Michele Iannelli	Paul O'Duffy
Cheryl Cler	Robert Scott Ireland	Kamlesh B. Oza
Bill & Susan Cobb	Bill Joll	Michael Pancier
Gerri Collins	Jonathan Jones	Elaine Parris
Debbie Davis	Janet Kapsin	
Will & Jane Davison	Kearney Family Cord *	

(Continued on page 11)

NEW MEMBERS & RENEWALS— JUNE 2015 TO AUGUST 2015 (CONT)*(Continued from page 10)*

Lori Pasko	MaryAnn Sannasardo	Julie Van Pelt
Tom Peterson	Ed Sassoon	Elizabeth Walklet
Robert R. Powell, Sr.	Kristin Shafron	Kelly Ward
Pelican Small Business Solution *	Brian & Diane Sheehan	John Weavil
Shelley Pumphrey	Jay and Val Shein	Sandra Welsh
Kristin Ramos	Leila Singh	Robert D. Williams
Sam Raymond	Jan Sjodin	Leonardo "Leo" Yen
Giovanna Rodriguez	Grass River Publishing LLC *	Carl & Mary Zaluznik
Carl & Debbie Roll	Susan Small	Manal Zippa
Donald Rone	Dean Soubasis	
Caroline Ruffin	Bob & Lori Stanley	+ Organization
Steve & Debbie Russell	Arlene Sullivan	* Business
Nora Sanchez	Rick Trapp	** Lifetime
	Kelsey Twarog	
	Julie Tyler	

MONETARY AND OTHER CONTRIBUTIONS

Mary Brandon

Hib & Martha Casselberry

IN LOVING MEMORY OF JOHN T. ENDICOTT

Fonnie Gill

Micki Jones

Lisa Markley

DID YOU KNOW...

In March 1907 the Hillsboro Inlet Lighthouse was first illuminated. The light was provided by an incandescent Oil Vapor Lamp (similar to a "Coleman Mantle Lamp") in a revolving Second Order Fresnel Lens. Barbier Benard et Turenne, Paris, France, awarded contract for lens and turning mechanism. Rated 550,000 CP for a cost \$7,250.

In 1920 the light was converted to electricity using 4-250W bulbs and increased the power to 2.5 million Candlepower (cp).

From 1941 to 1945 the light was kept off due to World War II and the presence of submarines off the coast.

In 1966 the 240 W bulbs were replaced with one 1,000 watt bulb increasing the power to 5.5 million cp and a range of 28 nautical miles. There are actually two 1000 watt bulbs. The 2nd bulb will rotate into position if the first bulb fails.

On May 22, 1992 broken gears forced the lens to be turned off and replaced by a Vega 25 temporary beacon, 28VDC..

On January 28, 1999 the main lens is back online with the new bearing design and all new electrical wiring but the new bearing fails one month later.

In August 2000 the classic lens is back online and has been shining ever since!



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www.saveourlights.com



Photo by Ken Herman