



# The Bay Run



Newsletter of  
The Delaware Bay Lighthouse Keepers  
and Friends Association, Inc.

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Summer 2021

"Our mission is to preserve the history of the  
Delaware Bay and River Lighthouses, Lightships and their Keepers"

## SO – WHAT IS A FRESNEL LENS?



Pronounced "Freh-nel", this lens was developed around 1821 by a young Frenchman, Augustin-Jean Fresnel. In the earliest days, lighthouses used many candles burning together to produce light. Today the unit of light is still referred to as "candlepower". Candles were easy to take care of but they did not burn very brightly. People began to experiment with fuels such as whale oil and kerosene. In Fresnel's time, most lighthouses were illuminated by oil burning lanterns. Prior to his invention, reflectors and large lenses were used to enhance the light, but these did a relatively poor job. Fresnel, experimenting with a drop of honey over a small hole cut out of cardboard, discovered a way to magnify many light rays into a single powerful beam. Using a central lens to focus some of the lantern light, he then arranged prisms (triangular bands of glass) around and above the central lens as well as below to capture the majority of the light rays and send them out horizontally. The beam formed by the Fresnel lens is the height of the entire apparatus. It increased the beam from 20,000 to the strength of 80,000 candlepower. With the introduction of electric power, the beam intensified the light to over one million candlepower. These lenses can emit a steady,

fixed light, or they can rotate and flash. The rotating light enabled it to be seen in all directions. The steady, or flashing quality of the light, as well as the color of the light, make up its characteristic. Over the years, mariners had trouble distinguishing one lighthouse from another. *(Continued on page 3)*

### *In This Issue:*

- 2 - A Beam from the President's Desk
- 3 - So - What is a Fresnel Lens? *(Continued)*
- 4 - Did You Know?
- 5 - Peggy's Corner & Martin T. Muldowney
- "Crosses The Bar"

- 6 - These Famous Ships – Where Are They Now?
- 7 - Cruise News For Summer 2021
- 8 - A Tribute To Carole F. Reily, Our Founder

*Angelo S. Rigazio, Jr.*



While sitting out on the deck checking out our backyard, looking at the array of blooming flowers, listening to the sounds of birds as they seriously work on making nests in the bushes, listening to the fishpond with its waterfall as the black and orange goldfish swim around, and seeing the tall lighthouse standing stalwart nearby, it brought back memories of my days at Harbor of Refuge. Reminiscing about the similarities and differences of living in a lighthouse in the spring and summer, brought back many memories. I remember sitting on the dock at Harbor, fishing to pass the time and listening to the seagulls squawking as if asking for a fish or two. For the most part, it was a peaceful time. The lapping of the waves against the breakwater and the quietness of the day was relaxing, a very peaceful time.

However, there were times when thunderstorms rolled in, the wind started blowing creating much larger, louder waves crashing against the rocks. Lightning always strikes at the highest point; a lighthouse in the water, standing 85 feet tall was the highest point by far. I spent two summers on the lighthouse and can honestly say it got hit by lightning at least a dozen times. The sound the lightning made when it hit was so loud, I do not think I will ever forget the sound and the power it held. But, all in all, the peaceful times surely outweigh the loud storms in my mind. I will never forget my two summers at Harbor.

We are planning two cruises to the lighthouses in the Delaware Bay this summer and a picnic style banquet in the fall. Please try to attend and bring along a friend or two. I hope to see you all again real soon. Stay safe...and remember... "Keep the Lights Shining". *Angelo*

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*The Delaware Bay Lighthouse Keepers and Friends Association, Inc. (DBLHKFA)  
is a 501(c)(3) non-profit preservation and educational organization.*



## SO – WHAT IS A FRESNEL LENS? (CONTINUED)



*(Above) Brandywine Lens*

A system was developed so that each lighthouse had its own flashing signal. Each lighthouse was also painted its own distinguishing color. Mariners would carry a list to help them identify the lighthouses.

In 1838, the twin towers of Navisink Light in the Highlands of New Jersey was the first lighthouse in North America to have a Fresnel lens installed. In 1852 the Fresnel lens had a light with a strength of 7,000 candles; the light was the size of a Christmas tree bulb. Its intense brightness was a result of refraction through beehive-shaped prisms. These lenses come in different sizes, referred to as orders. Originally, there were six orders; the first order lens was the largest. Over the years, more sizes have been added. Fresnel's lens design was so good that some are still in use throughout the United States today (Absecon Light in Atlantic City, NJ). The Fresnel lens has been referred to as "an invention that saved a million ships". (Lighthouses, The Running Press, Philadelphia, PA, 2000)



*(Above) Twin Towers at Navisink*





## DID YOU KNOW?

Origin of our holidays and other celebrations (*continued from spring newsletter*)



**4th of July** also known as **Independence Day** commemorates the adoption of the Declaration of Independence by the delegates from the 13 colonies in 1776. This is the year that documents upon which the nation's founding principles were established. "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights, among those are Life, Liberty and the Pursuit of Happiness..." (*The Farmer's Almanac, 2019*)



**September** gives us **Labor Day**, a federal holiday celebrated in the United States on the first Monday in September. This is when we honor and recognize the American labor movement and the works and contributions of laborers to the development and achievements of the United States labor force. This holiday was first proposed in the early 1880s. Oregon was the first state to make it an official public holiday. (*Wikipedia, 2021*)



**October** brings us **Halloween** which originated over 2,000 years ago when the ancient Celtic people celebrated the return of the dead they believed to return to earth at the end of October. The Celts would light bonfires and don costumes. Over time, it evolved into trick-or-treat, carving jack-o-lanterns, festive gatherings, wearing costumes and eating treats. (*Wikipedia, 2021*)



In **November** we have **Veterans' Day** which was proclaimed a legal holiday in 1939. It was once celebrated as Armistice Day, a US holiday dedicated to the veterans of all wars. In 1918 an armistice ending World War I was signed the 11th hour of the 11th day of the 11th month. It was first proclaimed a holiday by President Woodrow Wilson in 1919.



Can't forget **Thanksgiving** which became a national holiday in 1863 when President Abraham Lincoln made his **Thanksgiving Day Proclamation** by asking his fellow citizens "*to set apart and observe the last Thursday of November as a day of Thanksgiving and praise*". It was not until 1941 that Congress finally designated the fourth Thursday in November as Thanksgiving Day, thus creating a federal holiday. As we all know, we can thank the Pilgrims in Plymouth, Massachusetts, who feasted for 3 days with the Wampanoag people in 1621 for beginning this celebration. (*The Farmer's Almanac, 2019*)



**December** provides the last holiday celebration of the year, **Christmas**, a *Christian holiday*, celebrating the birth of Jesus Christ. The magi brought gifts to the Christ child. The ancient Romans began giving each other gifts on the first day of January; the custom spread throughout the Roman Empire. Eventually Christians moved the custom to December 25. (*The Farmer's almanac, 2019*)



**Baby spats**, Merle and Pearle will be one year old August 1. Where did the time go? A big, birthday celebration is planned. Update in next newsletter.

### Just a few facts from the 1800's:



Most people got married in June because they took their yearly bath in May; they were still smelling pretty good in June. However, they were starting to smell, so brides carried a bouquet of flowers to hide the body odor. *To be continued ....*

## PEGGY'S CORNER – Event Calendar

by Peggy Stapleford Activities/Program Chairperson

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### SAVE THE DATES – Mark Your Calendars:

**Saturday, July 17, 2021** - 5 hour Moonlight cruise to Harbor of Refuge Lighthouse visiting the lighthouses to the South in the Delaware Bay leaving the New Jersey State Marina in Fortescue, NJ on the Bonanza II at 4:30 PM. (See “Cruise News” p. 7) Masks required boarding and disembarking.

**Sunday, August 22, 2021** - 4 hour Sunset cruise to Ship John Shoal Lighthouse and other lighthouses to the North in the Bay leaving the New Jersey State Marina on the Bonanza II in Fortescue, NJ at 4:30 PM. (See “Cruise News” p. 7) Masks required boarding and disembarking.

**Saturday, September 18, 2021** – Catch up time = We have combined all the events that we have missed due to COVID; on this date we will be combining the Fall Meeting, our picnic, banquet and “Yard Sail” events at the Cape May Park-Zoo, Pavilion #4. Please see enclosed flyer. Hope to see you all there. Bring a friend, relative or neighbor. COVID rules and regulations in place for that date will be followed.

**Saturday & Sunday, October 16 & 17, 2021** – Lighthouse Challenge of New Jersey. Our organization will probably be stationed at East Point. More information to follow in the fall newsletter.

*If you have any suggestions for possible places for the banquet, please contact President Angelo Rigazio at [Keperang54@yahoo.com](mailto:Keperang54@yahoo.com) (609) 884-1329 or our secretary, Darlene Rigazio, [Darlenej50@yahoo.com](mailto:Darlenej50@yahoo.com).*

## MARTIN T. MULDOWNEY “CROSSES THE BAR”

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Word has been received that one of our members, Martin T. Muldowney, passed away on April 15, 2021. He was a resident of Wilkes-Barre and Scranton, Pennsylvania and a member of the United States Coast Guard, a veteran of the Vietnam War. He was proud of being one of the last lighthouse keepers, serving as an engineman aboard the Ship John Shoal Lighthouse Station on the Delaware Bay. He also served with two search and rescue units in Delaware and New Jersey. Upon his honorable discharge from the Coast Guard in 1967, Marty served a five year apprenticeship with Pipefitters Local in Wilkes-Barre and Scranton. He was a dedicated pipefitter until his retirement after working for 40 years. We always enjoyed seeing Marty at our Annual Keepers Banquet. He will be missed by all.





## THESE FAMOUS SHIPS – WHERE ARE THEY NOW?



**BATTLESHIP USS MISSOURI** – affectionately known as “The Mighty MO” received 11 battle stars for service in World War II, Korea and the Persian Gulf. It was once known as the finest ship afloat. After 17 years of active service, it was decommissioned and donated to the USS Missouri Association. It currently can be viewed as a museum ship located in Pearl Harbor, Hawaii.

built in an American shipyard and the fastest ocean liner to ever cross the Atlantic Ocean. The ship is 99’ long, 101’ wide and has 12 decks making it much larger than the Titanic. It has been retired and is currently berthed at its dock in Philadelphia, Pennsylvania.

**SS UNITED STATES** – Known as the “Big U,” the largest liner ever



**USS OKLAHOMA CITY** – is the first ship named for this city and one of six light cruisers to become a guided missile cruiser. It sank during a training session in 1999.



**PRINZ EUGEN** – once one of Nazi Germany’s most powerful heavy cruisers, is the only survivor of the 1946 atomic tests held off the island on Bikini reef in the Marshall Islands. Captured by the United States and used during the atomic tests, its remains are still partially visible today. One screw propeller was salvaged and placed on display at the Laboe Naval Museum in Germany.

**USS PUEBLO** – the “spy ship” attacked and captured by North Korea in 1968. North Korea claimed this ship had entered their waters while the United States claimed the ship was still located in international waters. The Pueblo is the only ship of the US Navy still on the commissioned roster currently being held captive.



**And our own**

**USS NEW JERSEY** –

known as the “Big J”. This ship earned more battle stars for combat action than any other battleship. It was part of the active fleet for 21 years and the only United States battleship providing gunfire support during the Vietnam War. In October of 2001, the New Jersey was donated to the Home Port Alliance and rests in the Delaware River in Camden, NJ. Stop in for a tour of the ship and visit the museum shop.

*(PICTORIAL HISTORIES, “Celebrated Ships that Made History”, Canoga Park, CA 1996)*



## CRUISE NEWS FOR SUMMER 2021

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Cruises to the Lighthouses of the Delaware Bay have been scheduled for Saturday, July 17, and Sunday, August 22, leaving at 4:30 PM...the 5 hour SUNSET CRUISE (July 17) goes to Harbor of Refuge and points south in the bay...the 4 hour “old time” MOONLIGHT CRUISE (August 22), to Ship John Shoal Light and north in the bay. These narrated cruises take place aboard the USCG approved Bonanza II out of the NJ State Marina (Higbee’s –slip #5), Fortescue, NJ, 08321. **RESERVE SOON – BRING A FRIEND, NEIGHBOR AND/OR RELATIVE. THESE CRUISES FILL UP QUICKLY!!** (NOTE: Fortescue is “The Weakfish Capital of the World”.) Check out this quaint fishing village on the Delaware Bay.

The cost for the cruises is \$45 for adults and \$20 for children 5 - 12 years of age. **Passengers must be at the dock at least one half hour before departure time.** Lighthouses visited are: Miah Maull, Cross Ledge, Elbow of Cross Ledge, Fourteen Foot Bank and either Brandywine or Ship John. Harbor of Refuge is included in the 5 hour cruise on July 17. You are asked to bring bug spray (*just in case*), a jacket and a box lunch if you wish. Soda and water are provided onboard. **Masks must be worn embarking or disembarking from the vessel.**

**For reservations please contact:** Darlene or Angelo Rigazio (609) 884-1329 e-mail: darlenej50@yahoo.com; Keeperang54@yahoo.com **OR** Maxine or Rod Mulligan (856) 691-8224 Memax1@juno.com. Checks (payable to DBLHKFA) are **NOT** deposited until after the cruise; if the cruise is cancelled due to inclement weather, your check will be returned. We must have a home & cell phone number for you in case of a cancellation **OR** you can call any of the above numbers. Refunds **WILL NOT** be made if you **DO NOT** let us know you **WILL NOT** be there. Payment is due 2 weeks **BEFORE** the cruise, checks can be mailed to: Maxine Mulligan, Treasurer, 1049 Simca Terrace, Vineland, NJ 08360.

There are former lighthouse keepers and members of the coast guard aboard these cruises to narrate and answer your questions. Background information on the Delaware Bay and the history of each lighthouse will be given. Spend some time on the historic Delaware Bay viewing the lighthouses...excellent “photo ops”. Come cruise with us and watch the sun set on the Delaware Bay.



## A TRIBUTE TO CAROLE F. REILY, OUR FOUNDER

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In the fall of 1995, a group of former Delaware Bay lighthouse keepers and others with connections and interest in the Bay's many lights got together under the leadership of Carole F. Reily. Carole, who lived in Buena, NJ, was a lighthouse enthusiast, and was known locally as the "Lighthouse Lady". After getting busy locating former keepers, Carole decided to get them all together at a reunion. The group became larger and voted to meet the following year for a second reunion where they ultimately agreed to organize. The goal set by this group was to educate the public by trying to preserve the history and tradition of the Delaware Bay, River and area lighthouses. This knowledge could then be passed on to future generations. Working out the framework of the new organization, meetings were scheduled for four times a year with a quarterly newsletter to be published.

It was decided to have cruises of the Delaware Bay so the public could actually see these Bay lighthouses "up close and personal" and learn their history. Carole began by contacting the owner of the Bonanza II out of Fortescue, NJ. Six cruises a summer were scheduled and a "good time was had by all". Carole attended all the cruises and loved to sit up in the bow; she enjoyed the spray from the waves and arrived back in port... soaked. And the rest, as they say, is history.

In July, 2007, Carole lost her fight to her many disabilities BUT she never let them stop her "lust for life". She always had a positive attitude and was happy and upbeat despite her health problems. I would like to dedicate this newsletter in her memory and would also like to say thanks for being a part of my life. If it hadn't been for her wanting to share her love of lighthouses, we would never have enriched our knowledge regarding the Delaware Bay lights (and others), never had a chance to meet so many interesting people, never formed long lasting friendships and never created all these memories. Our thanks to you, Carole, for contributing to and becoming a very important part of our lives. You will long be remembered.

### *A Tribute To Carole* by Peggy Stapleford

Carole is gone, we soldier on, mindful of our loss  
 She crossed the bar to God's great dawn  
 From there she made the toss  
 And the beacon fell into our hands,  
 We must, we have to carry on.  
 Follow her lead, protect the lights,  
 Give of ourselves, continue the fight.  
 She sacrificed her life, her all  
 To answer every lighthouse call  
 Fought ever on, with all her might, never whining  
 Leaving her legacy of "Keep your lights shining."

