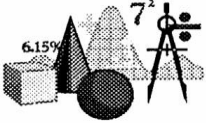




DAYTONA SECTION



LIFE MEMBER NEWSLETTER NOVEMBER 2019



Life Member Chair
Ron Gedney, LF
r.gedney@ieee.org

Life Member Vice Chair
Marty Oksenhorn, LM
moksenho@yahoo.com

Lighthouse Tour



On October 15, 2019, the IEEE Daytona Section, Life Members Affinity Group had a “Keeper’s Tour” of the St. Augustine lighthouse. Our tour guide was Jason Smith who is an assistant keeper. In addition to Jason, the lighthouse also employs the lighthouse keeper Rick Cain, a staff of 40 people (which includes 7 archeologists) and 200 volunteers. The lighthouse was commissioned on Oct. 15, 1874, so our visit coincided with its 175th birthday. Today, the lighthouse is a non-profit organization. This lighthouse as well as all other lighthouses in the United States was taken under the control of the United States Coast Guard in 1939. Now, the Museum owns the entire Light Station property, including the tower and Fresnel lens, given to the Museum by the United States Coast Guard in 2002. So, one question one may have is why the lighthouse employs 7 archeologists? The reason is that there are 500 ship wrecks off of the coast of St. Augustine Florida!

On the grounds of the lighthouse, is the “Keeper’s house”. This housed the Keeper and the Assistant Keeper. The Keeper’s house has a basement (strange in Florida!), which has 2 cisterns which hold water. The two tanks can hold 5000 gallons of water.



The Keepers house

Now for some St. Augustine light house history. The first light house keeper was William Harn. He was a Civil War hero. The light house was built with Civil war reconstruction funds. It was completed in 1874. It was designed by Paul Pells.



The light house is 165 feet tall. There are inside 219 steps to climb to reach the top. The outside granite steps were made by a company in Alabama. The metal work was made by Phoenix Ironworks in Philadelphia.

During the first 10 years of operation, burning oil (pig fat) was used as the light source. In 1888 the light source was changed to kerosene. In 1909, vaporized oil was used as the light source. Finally, in 1936, an electric bulb started to be used as the light source. In 1955 the Coast Guard automated the lighthouse with solar cells to control the light.

Now back to the lighthouse itself. The striped paint scheme identifies the St. Augustine light house to sailing ships. This is called the “Day Mark” of the lighthouse. The rotation of the beams creates the “Night Mark” of the lighthouse.

Sailing vessels had/have a chart of Night Marks to identify which lighthouse they were near. The light is on every night, and it illuminates a first order Fresnel lens. The lens is 6 feet wide, 9 feet tall and has 170 prisms. There are 3 circular panels on top of the lens. There are 3 rotating light beams. The mechanism is rotated by a motor with 1 rotation every 90 seconds. The 90 second rotation allows each of the three beams to be seen every 30 seconds. Before the rotator motor was installed in 1955, the unit was rotated mechanically. The mechanical system was “powered” by gravity pulling a weight down which turned the light assembly. The lighthouse keeper had to bring the weight up to keep the mechanism turning.

Marty Oksenhorn
Life Member Vice Chair



Life members and guests enjoying lunch at “The World Famous Oasis Restaurant” in St. Augustine Beach after the lighthouse tour.

HEADS UP - Florida Power and Light is offering the Life Members group a tour of their new 75 MW Solar Array installation in Samsula. We are working to firm up dates in early 2020.