Lighthouse Bearing Installed

On March 27, 2000 the new ball bearing for the Hillsboro Lighthouse arrived at the Station. The wooden box was opened, and the bearing removed. It consists of three five-foot diameter parts and 60 balls. The first part to be installed was the “Lower Race” shown being re-packaged for hoisting to the top of the tower. Keeper Art Makenian is on the left. This was hoisted, and installed by the Coast Guard Auxiliary and then centered using steel blocks by the Torrington Bearing Company.

There was a problem in the bronze “ball retainer” and a new one had to be cast and machined. This took some time, but on June 22, 2000 the last components of the ball bearing were hoisted to the top of the Lighthouse and installed by USCG Auxiliary volunteers. The 300 pound vertical shaft which rotates the lens was reinstalled, and at the end of June the delicate work of re-assembly was well advanced. It is very tricky work since the lens weighs 4,000 pounds, and the 2,000 pound bearing support must be raised five feet using hydraulic jacks and other hand-operated tools in very tight spaces. Then the LENS ASSEMBLY will be carefully lowered to rest on the bearing. Gearing will be assembled, and careful testing will be started. It is really

Art Makenian and Dave Butler
SOCIETY WORK ON HILLSBORO LIGHTHOUSE

During the past two years the Lighthouse Society has played a very active role in the work on the Lighthouse, but our participation is limited by Coast Guard Regulations. For example we could not buy the new bearing for the Lighthouse, but we could buy the tools to help install the bearing. Civilians not affiliated with the Coast Guard are not supposed to perform work on the Lighthouse structure. Within the limits we have been as active as possible, and we are hoping to expand this role in the future. Some areas where HLPS worked included:

AIR VENTILATORS....The Coast Guard Auxiliary removed the bronze VENTILATORS located in the Watch Room. H.L.P.S. members disassembled them, polished them up, and also purchase replacement knobs to replace those which had broken over the years. They have been re-installed and look just as they did in 1907.

HYDRAULIC JACKS FOR LOWERING THE MERCURY RESERVOIR. HLPS provided the hydraulic jacks to lower the one-ton mercury reservoir. This job took about a month. The first step was to raise the 4,000 pound LENS assembly and block it up. Then the cast-iron tub was lowered inch by inch in the tight space between three steel columns. Wood blocks, hydraulic jacks and chains were used to give the clearance for inserting the new ball-bearing.

CHANGE OF COMMAND CEREMONY

On April 28, 2000 a ceremony was held at the Coast Guard Base on MacArthur Causeway in Miami to honor Chief Dennis Dever for four years of busy service in command of the "Aids to Navigation" team. This Seventh District Group has responsibility for Lighthouses from Jupiter to Key Largo, the day markers along the Intracoastal Waterway, and some 330 separate Navigation devices. When ships run aground, or hurricanes hit this small team of 8 men plus officers must take emergency action, and get the critical Navigation beacons functioning again. One time the seas were so high small boats could not operate, and they used a 110 foot USCG Cutter to re-set some critical navigation aids in Miami Harbor as the storm was winding down.

The Hillsboro Lighthouse Preservation Society has worked with Chief Dever since 1997, and he has spoken at several of our meetings. The Chief has been very active in the 1998 Lighthouse Renovations, and has worked with Art Makenian and Dave Butler on the bearing replacement. Actual Engineering for the bearing is done by USCG Civil Engineering in South Miami, but Chief Dever has been deeply involved in the logistics to get the bearing to the Lighthouse and installed.

We wish him very well in his new assignment at Cape May, New Jersey, and he will be very much missed in South Florida.
new bronze plaque listing all the Lighthouse Keepers since 1907, and this was cast this year, and installed in June 2000.

REPLACEMENT BOLT...It was discovered that a heavy 1932 brass bolt was broken in the drive assembly. A historically accurate bolt was designed by HLPS Personnel, and we funded the custom machined replacement.

MECHANICAL TIME SWITCH.....HLPS was asked to provide a heavy duty 120 volt 40 AMP time switch for timing the electrical operation of the motors rotating the light. Two switches are being provided for reliability, one by the Coast Guard, and one by HLPS.

CHANGE OF COMMAND, MIAMI
Standing...Captain Byrd, Chief Dever, Chief Lawrence
Great News! The long awaited ball bearing assembly has arrived and is being installed as this newsletter goes to press. If the installation proceeds smoothly, thorough testing of the turning mechanism will follow. Assuming everything checks out, a new relighting date will be selected. HLPS members will be advised by postcard as soon as the date is set. Watch your mailbox!

Our thanks go to the US Coast Guard 7th District in Miami for procuring the new bearing and to the US Coast Guard Auxiliary Flotilla 36 (Boca Raton) & Flotilla 34 (Pompano Beach) for the backbreaking labor to install it. A special recognition goes to Arthur “Art” Makenian of Flotilla 36 who is our official lighthouse keeper and is overseeing the repairs.

While we’re passing out the gratitude, HLPS would like to thank the Pompano Beach Fishing Rodeo for their generous donation of $500. This marked the third year in a row that the Rodeo has supported us for a total of $2000. Thanks to Phil Maus, Patty Carr and all the Rodeo folks!

Harry Cushing

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