ONE HUNDRED YEAR HISTORY OF THE

PILOTS' ASSOCIATION

BAY AND RIVER DELAWARE

1896 - 1996

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Bay and River Delaware 1896-1996

By Andrew Knopp

A DELAWARE HERITAGE PRESS BOOK

First Printing, May 1996
Second Printing, February 2001

ISBN: 0-924117-07-9
Library of Congress Card Number: 96-84243

The Delaware Heritage Commission
Carvel State Office Building
820 N. French Street, 4th Floor
Wilmington, DE 19801

The Delaware Heritage Commission is pleased to support this book highlighting an important aspect of Delaware local history.

Acknowledgments by Andrew Knopp

How can I begin to thank so many for so much. Your assistance and patience has brought this book off the back burner into reality. I am most grateful to Dr. Deborah P. Haskell who is the Executive Director of the Delaware Heritage Commission for her editorial guidance, and Lynda E. Cook, the Commission's desk top publisher, for her design work; Dr. James E. Marvil, Captain and Mrs. James S. Roberts, Mrs. Joanne Thompson, Captain William E. Lowe, retired pilots D. A. Potter (and Mrs. Helene Potter), W. L. Bennett, H. H. Rowland and J. W. Rowland (whose oral histories are included within), W. S. Ingram, Jr., J. F. MacIntire, and W. E. Bailey, Pennsylvania's directors C. W. Kenworthy, Jr., W. T. Poulterer III, Delaware's directors R. L. Beebe, J. H. Selph, Secretary/ Treasurer George MacIntire, and last but not least the Pilot Association for the Bay and River Delaware, Captain Michael J. Linton its current President, Robert Yost, past Port Engineer, and Nancy M. Knopp, Secretary, for their across the board support. Without them this book could not have been published.

DEDICATION

It is with great pride that we dedicate this book to those men who gave their best in fair weather and foul. In the past one hundred years there have been two hundred and sixty-six members of the Pilots' Association for the Bay and River Delaware. The Association has weathered many storms on land and sea. Out of this perseverance has evolved a state of the art business, able to cope with the challenges of today and the unknowns of the future.

THE HISTORY
OF THE
DELAWARE RIVER PILOTS

(The following history represents a compilation of the work of two women, Joan Thompson and Judith Atkins Roberts. Joan's paper was written under the direction of the dean of Delaware historians, Dr. John Munroe, while she was a student at the University of Delaware. Joan is the great-granddaughter of John Penrose Virden, who will figure prominently in this book. Judy Roberts is married to retired pilot James S. Roberts. Her son Steven A. Roberts is a pilot. Judy credits herein material her son researched about piloting when he was in an advanced history course in high school. Judy served for more than ten years as a member of the Delaware Heritage Commission. We begin with Joan's work.)

According to my co-author Roberts, piloting is defined as:

> *"...the art of conducting a vessel in channels and harbors and along coasts, where landmarks and aids to navigation are available for fixing position; where the depth of water and dangers to navigation require a constant watch and frequent change of course." The pilot does this by advising the captain of the proper course to follow. The captain then relays the information to the quartermaster who does the actual steering of the ship.*

Piloting is one of the oldest professions of the sea with a salt-tanged background as stirring as any in the records of ships and seamen. Whether it is the port of New York, Philadelphia, Baltimore, Boston, San Francisco or Seattle, in fact any water-bordered country in the world skilled pilotage is regarded as a maritime necessity.

The development of piloting in this country began with the early colonies when harbor hazards were a great maritime headache to the captain of the merchant ships. Every port presented its own navigation problems and ship masters were willing to pay large fees to port navigators who could relieve them of having to take ships safely through these waters. The Delaware Bay and River, with ports

at Wilmington and Philadelphia, called for such trained men, as did all other coastal ports with tricky navigable waters.

At the southern tip of Delaware is the town of Lewes, which boasts of two distinctions; being the first settlement in the State and having a population comprised almost entirely of pilots, pilot families and the descendants of pilots.

The town, situated as it is at the entrance of the Delaware Bay, was a made-to-order background for producing bay and river navigators. For more than two hundred years pilots have made their homes there while some live at Cape May, New Jersey, across the bay, Philadelphia or Wilmington.

As discussed by Roberts, American piloting was officially recognized when the Governor of New York issued the first Sandy Hook pilot license in 1694. By the end of the eighteenth century, the first Congress of the United States recognized the occupation of pilots and legislated to give control to respective states.[1]

Although there is no definite date for the establishment of the pilot system on the Delaware River, pilots have been mentioned in old records many years previous to 1694. Perhaps Giovanni Verranzano used an Indian pilot who boarded the ship from a canoe when he explored this region in 1524. Henry Hudson, who is credited with discovering the Delaware Bay in 1609, probably didn't use a pilot as he soon decided that the shoal-filled entrance to the bay couldn't be the route to the East Indies for which he was searching. However, there were white pilots in 1655 because the Governor of New Netherlands sought for those who had "perfect knowledge of the bottom, depths and shoals of the South River."[2] He engaged Sol Garretson and Peter Lourison as pilots. These men were Dutch, Lourison having come to New Netherlands in 1628. In 1765 a Quaker named Griffith wrote: "we made Cape Henlopen and a pilot came aboard who proved to be a native Indian."[3]

But surely for many years previous to this, local Indians had been guiding white ships up the river as there were many explorers, both English and Dutch, who investigated these waters after Hudson's discovery and report. Some of the Indians who lived along the bay and river seemed most anxious to ingratiate themselves with the whites for trading purposes. At one time or other, they had given the river at least four names. Arashal (a

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1 C. A. Weslager, *The Eagle is on the Delaware* (New Brunswick, N.J.) p. 32.

2 *Ibid.* p. 12.

3 "Philadelphia Before William Penn," *The Bulletin*, March 2, 1979, p. B10.

river at all times navigable and useful), Mekerisk-Kitton (a large river in which there were ebbs and tides), Lenape Whittuck (Indian tree), and Kithanne (the largest river).[4] The Dutch, when they came, gave the river several other names. Among them were: Naasau, Prince Hendrick's, Prince Charles and South River. The Swedes, who followed the Dutch, called the river The Swedish River, New Swedekand Stream and the River of New Sweden. Finally the English settled on a permanent name when they named it after Lord de la Warr, the Governor of Virginia, who never saw it.

Thompson adds to the Roberts narrative that, according to history and legend, the first claim to piloting on the Delaware Bay and River belongs to the Nanticoke Indians, who boarded the early white settlers' ships and piloted them safely up the river. In 1765, Munster Griffith of the Friends' Society who visited this section, wrote: "We made Cape Henlopen and a pilot came on board who proved to be a native Indian." The early white pilots were usually engaged in other occupations and did piloting as a side line.

The first good chart of the Delaware Bay and River was made by Joshua Fisher, a hatter of Lewes, in 1756, and this chart is signed by the twenty-two pilots licensed by the Crown at that time. A later chart published in Dukes Court, London, 1776, is also signed by Delaware River pilots.

One of these pilots Henry Fisher, a native of Lewes, during the Revolution used his pilot boat, *Marquis of Granby* as an express to warn the War Board in Philadelphia of the approach of enemy ships. A bulletin sent out by the Pennsylvania War Office April 13, 1777, warned the people along the Delaware that Henry Fisher of Lewes Town had reported the appearance of the English warship *Roebuck* and nine other vessels off Cape Henlopen. Fisher was appointed by the Continental Congress to raise a regiment for the defense of the sea coast and he enlisted the aid of other pilots in this task.

The Roberts research also presents some pertinent information about the fascinating town of Lewes. We get a feeling for its politics.

> *"Lewes was a strong Tory center during the Revolution and many pilots continued to support King George III of England. Henry Fisher, a river pilot and prominent citizen of Sussex County, chose to risk his life and fortune by courageously supporting the patriot cause. Indeed, on at least one occasion, he*

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[4] Nancy Martin, *Sea and River Pilots*, p. 24. (Lavenham, Suffolk, England, 1977).

was threatened with tar and feathering by irate Loyalists in Lewes. While David Hall and Matthew Wilson, who were fervent patriots, went off to war, Fisher stayed home and led the defense of Lewes. Early in 1775, he was established as the permanent lookout scout at Cape Henlopen to alert the Continental Congress of any warships in the bay. In July 1777 he reported that he had sighted the British fleet off the mouth of the bay. Congress then prepared for an assault by the British up the Delaware River to Philadelphia. Already the entrance to Philadelphia was well protected by forts which had been built below the city to defend the city against what was definitely expected to occur. Also in the river were chevaux de frise. These were two rows of underwater obstructions of heavy frames supported by heavy beams which slanted upward and were topped by iron points which rose to within four feet of the surface of the river.[5] *The British were aware of these defenses and the fact that all buoys had been removed. They were also aware that pilot activities had been suspended, except for the activities of a very few proven patriots who were called chevaux de frise pilots. Knowing that the Delaware River was treacherous and impossible to navigate without the pilots and markers, the British wisely decided to invade Philadelphia by land after sailing up the Chesapeake Bay to the Elk River.*

Fisher became a major in the state militia and maintained a guard of thirty men at the Cape Henlopen Lighthouse, as well as a second force of twenty-four at the *false Cape*, or Fenwick Island. Later in the war, he maintained armed whaleboats at Lewes Creek and at Indian River Inlet to control enemy activities in the bays and river and to aid the American vessels which were being harassed by the British.

Fisher was later empowered by Congress to raise a company of one hundred men for the defense of the Cape and "near country" and to arm them at his own expense. He agreed to do this which led his wife to remark that he was beggaring his family. (The Fishers had several daughters, all of whom would need dowries when they wed. One daughter married Daniel Rodney who became the nineteenth governor of Delaware.) He was also given overall command of the pilots in the river, but refused the commission.

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[5] Richard Carter, "History of Sussex County," *Delmarva News, Delaware Coast Press*, August 1976, p. 15.

Roberts remarks on page 9 of her history that Christopher Ward, *The Delaware Continentals*, called Fisher the "prime representative of the revolution in his town and country." He died in 1788, never having accepted compensation for his financial sacrifices. Around 1900, a subscription drive was initiated by a local Lewes newspaper *The Delaware Pilot,* for a monument to the memory of Henry Fisher but it was never erected. Today in Lewes, there is not even a street named after Major Fisher, the man who fought the war at home.

Thompson found other records that show the pilots taking an active part during the Revolution. A pamhlet owned by W. Theodore Buckalew of Wilmington tells that Delaware pilots were warned of Tea Ships during the Revolution. This pamphlet issued in Philadelphia on November 27, 1773 warned the Delaware pilots that any pilot that brought the ship *Polly*, under Captain Ayres, up the Delaware was in danger of a coat of tar and feathers.

(*Thompson continues)*...After the Revolution, importers and exporters of every nation began a booming business with the new republic. Shipping increased and with it, a demand for pilots. As had happened in other countries, pilots began to form groups and devote themselves entirely to piloting.

Under an act of Congress on August 7, 1789, states bordering on rivers were permitted to make pilotage laws. Until 1818 the state of Pennsylvania alone enacted laws governing pilots and pilotage and in this way the entire pilotage of the river was centralized in its control. In 1891, Delaware too, enacted laws governing pilots and pilotage.

"After 1800, the occupation of piloting at Lewes appears to have been confined almost entirely to persons bearing the names of Conwell, Clampitt, Rowland, Maull, Howard, West, Marshall, Wesley, Chambers, and Verdin. Members of the latter family have been very successful in this occupation and through their influence the beneficial system of pilot laws for the Delaware was secured by legislative enactment. In 1872, 30 pilots resided in Lewes—Thomas Rowland, age 83, being the oldest. In 1887, nearly double that number of pilots claimed Lewes as their home and nearly half the businesses on the Delaware was controlled by them."[6]

It was from Lewes and Cape May directly across the bay that the sail cutters of the early pilot groups put out to meet the inbound ships. Prior to the present association there were eight of these swift, schooner-rigged pilot boats. Four of them: *William W. Ker, E.C. Knight, J.K. Edmunds,*

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6 J. Thomas Scharf, History of Delaware, Vol. II. P. 1226.

and *John G. Whilldin*, whose pilots were licensed by Pennsylvania, were distinguished by "Pa." on their foresail. The four Delaware boats were the *Henry Cope, Thomas F. Bayard, Thomas Howard* and *E.W. Tunnell.*

These boats raced as far as several hundred miles out from the coast to meet incoming ships, it being agreed among the pilots at that time that the first pilot to board an incoming ship served as her pilot for both the incoming and outbound trip. The competition among these boats was keen, and there was no limit to steps taken to outdo the other pilot boats. Since there was no way of knowing when the sailing ships would arrive, it was necessary to cruise miles off shore, and once a ship was sighted, a race was on to reach it first.[7]

During this period, in order to have boats seaworthy enough to cruise out to sea, the cost of such boats being prohibitive for one man, small groups of pilots had joined together, pooled their money and built a boat. For example, the *E.W. Tunnell* was jointly owned by thirteen pilots. When it was built, the ship cost thirteen thousand dollars, each man putting up an equal share. The money for maintaining and operating the *Tunnell* was provided by the thirteen pilots who paid one-third of each outward pilotage into a common fund for this purpose.

Even during this period of strong competition the pilots found it necessary to cooperate to a certain extent. Pilot boats cruising off shore looking for inbound vessels created a problem for outbound ships wishing to discharge their pilot at the Delaware Capes. Oftentimes a ship would have to cruise around two or three days to find a pilot boat to take the pilot off. In order to remedy this situation, the pilots agreed among themselves that each of the eight pilot boats would take turns anchoring at the mouth of the bay for a fixed period of time to act as take-off boat for all pilots of outbound ships, each pilot paying into the treasury of the take-off ship ten dollars for this service.

There are many stories of the old sailing days which even today are vivid and alive in the minds of some of the "oldsters" of the Association. It is said that in the early nineteenth century the pilots were allied with smugglers and used to bring ashore goods in the middle of the night and hide them in Lewes Town. In an article in the *Delaware Gazette* January 30, 1816, there was a protest written against such activities by the pilots stating that it would be impossible for revenue officers to secure revenue in the Delaware district if the pilots and smugglers united.

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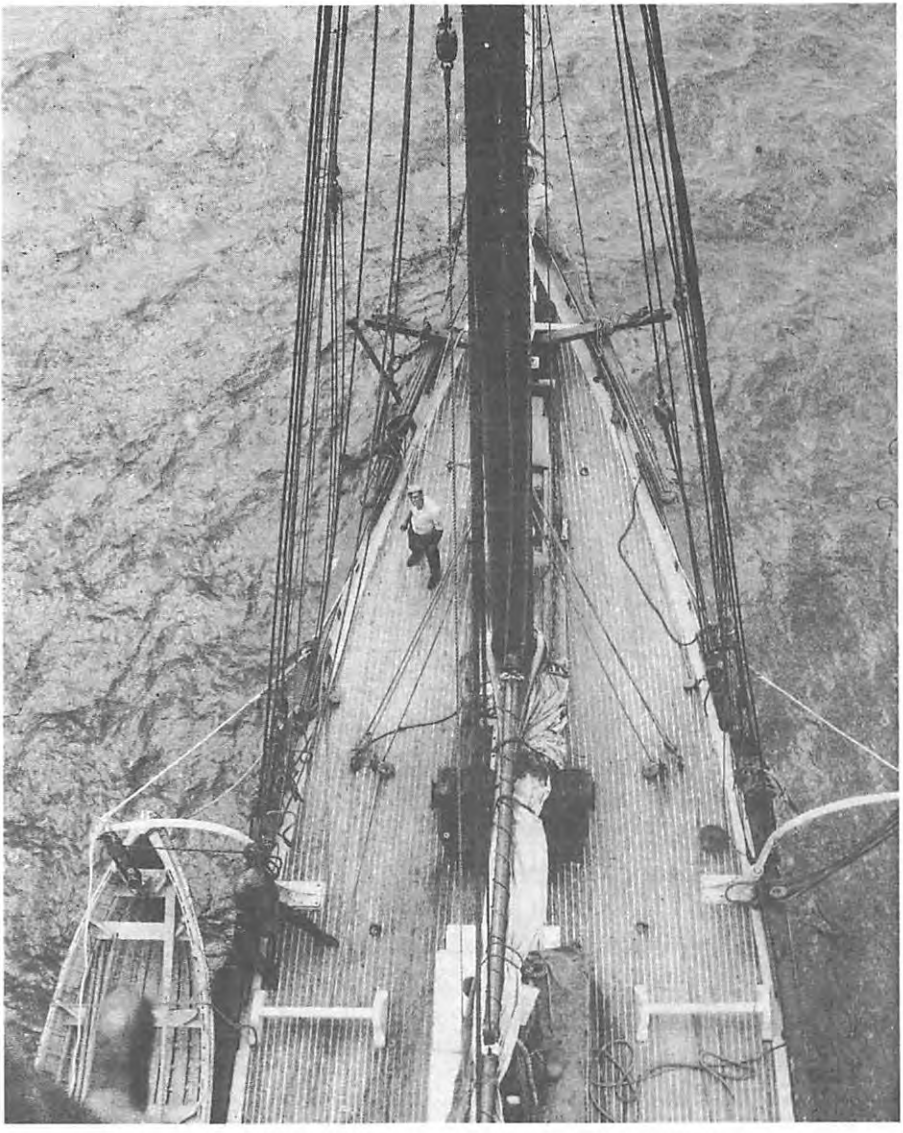
[7] Interview with Captain Arthur W. Marshall, Jr.



Aboard the *J. Henry Edmunds, Photographed by K. L. Miller*

However, the tales of adventure and daring are matched again and again by those of hardship and danger for the sail pilot boats were forced to set forth in all kinds of weather.

Some of the old pilots tell of the time the *Tunnell* rode out one of the worst hurricane blows of the Atlantic. She was caught off shore when the gale swept over her. It was sure death to go up on deck. The smoke pipe of the galley was carried away, and the cabin was filled knee-deep by the seas that poured in through the opening before it could be plugged. For eleven days and nights the apprentices and pilots fought to keep the ship afloat. When they finally brought her back to Lewes, the people crowded to the beach to welcome them as though they had returned from the dead.

One of the tragedies in the history of the Delaware pilots is the loss of the pilot boat *Turley* and all her crew and pilots in the April gale of 1889. The *Turley* was caught in the thick of it and went down. Just how was never learned. Not so much as a hatch cover or spar was found from her.

With the advent and increased use of steamships and their ability to maintain a regular schedule and course, it was no longer necessary or practical to go to sea to look for the ships which had heretofore been driven hither and yon by the winds. Thus, the pilot boats all began to stay close to the entrance to the bay, creating greater competition and friction among the various pilot boats.

Some of the pilots, instead of going to sea, followed a practice which earned them the name of the "parlor car" pilots. These men took the train north, often as far as Halifax, to meet the great line ships in order to be assured of being on board first and getting the large pilotage.

In an oral history interview August 31, 1995, with Harry H. Rowland and his brother Jay, Harry recalls:

> *We used to have pilots who went all the way up to Halifax, Nova Scotia, to join ships to pilot to the Delaware River. One of them was my great uncle Harry Long (My great, great uncle, I guess.) They were known as parlor car pilots. People thought enough of them or as little of the rest of the group that they wanted certain pilots. They didn't want to come down here and wander around waiting.*

(Editorial note: This is the same Harry Long mentioned in the next paragraph of this history.)

Although it was not difficult to board the incoming ships as long as there was a good sailing breeze to enable the pilot boats to maneuver close to the steamships, it was almost impossible if the pilot cutter was

becalmed or if there was ice in the bay. Thus, it became more apparent that the pilots needed a pilot boat with power to facilitate the boarding of ships regardless of weather. The price of such a vessel was beyond the means of any of the groups owning one of the sailboats. Hence, there was a growing movement for banding together all of the pilots into some sort of organization where they could all pool their money and buy or build a power vessel to use as a pilot boat. There was for a time some opposition on the part of some of the boats who objected to giving up individual pilotage, but after several years of discussion a committee of Delaware and Pennsylvania pilots was appointed October 7, 1896, to draw up a working basis for such an organization and John Penrose Virden, F.S. Eldridge and H.C. Long were appointed to meet with Mr. H. Flanders, a lawyer, to draw up regulations to govern and control the Association of Delaware and Pennsylvania Pilots.[8]

On October 23, 1896, a preliminary meeting of the representatives of all of the pilot boats was held at the Delaware pilots' office. W. Maull acted as chairman and W.E. Price as Secretary and the articles of the new constitution were read and approved by the representatives attending the meeting.

The first meeting of the Pilots' Association for the Bay and River Delaware was held at the Delaware Pilots' office, 319 Walnut Street, Philadelphia, on Tuesday morning, December 1, 1896. Frank S. Eldridge was appointed temporary Chairman and W.E. Price temporary Secretary. Upon motion, the constitution was signed by ninety-three members and then adopted as read. At this meeting officers were elected to serve for the ensuing year to December 1, 1897. John Penrose Virden was elected President, John B. Merritt, Secretary, and Robert Hughes, Treasurer.

John Penrose Virden was reelected as President the following year and held the office for twenty-one years thereafter. On January 12, 1917, a banquet was held in his honor at the Germantown Cricket Club to honor and commend him for his administration of the affairs of the Pilots' Association. During his term as President of the association he continually fought for compulsory pilotage and increased pilotage rules.

The Toastmaster at the banquet, John H. Baizley, paid tribute to him in the following speech:

> *The pilots today, due largely to the influence exercised by his father, Henry Virden, and himself are different men to what they*

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[8] Entry of October 7, 1896, Minute Book of the Pilots' Association from 1896 to February 8, 1911 (pilots' office).

John Penrose Virden, *Family Photograph*

were in the early history of the port. During the days before the Revolution they were an unruly crowd and frequently held up commerce of the port by combining together as strikers and committing other depredations against law and order.

The father of our honored guest ruled the pilots and had passed legislation improving their condition. Our guest has served since the decease of his father as the logical head of the service.

We would now like to hear from Captain Virden and have him explain to us: How did he fool the Board of Port Wardens and get his first license as pilot before he was twenty-one? How does he continue to perpetuate himself in office? Lastly, how did he persuade a Republican Governor to reappoint him to membership on the Board of Pilot Commissioners of Delaware?

Among the notables who sent messages in reply to the invitation to the banquet was William Jennings Bryan who said, "Regret not being with you. Virden and myself seem to represent different theories. He, compulsory pilotage and I, free silver; neither of which appear to merit public approval"[9]

The Virden tradition was carried on by J.P. Virden's son Thomas H. Virden, President of the Delaware Board of Pilot Commissioners, and his grandson Arthur W. Marshall Jr.

(Editor's note: Although Thomas' wife did not bear a son, Joan Thompson has carried on the interest and enthusiasm for the traditions. Had she been born at the time of this 100-year tribute to the association, she might have been one of the first female river pilots.)

(All of the pilots interviewed in the fall of 1995 for this celebration of 100 years had stories about John Penrose Virden He was such an imposing figure.) Joan Thompson recalls (on September 12, 1995):

Perhaps the earliest memory of my grandfather was as an elderly gruff gentleman with a mustache and a beard sitting in a large chair that was placed on a piece of linoleum. The linoleum was to protect the rug when he missed the spittoon. I think I was about seven when he died but, prior to that, on each of my birthdays and Christmastime, we paid a visit to great-grandfather and he generously presented me with a $5 goldpiece at each

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9 From collection in a scrapbook of J. P. Virden. (in possession of Joan Marshall Thompson).

one of those events. I remember being a little frightened of him. He was always gruff. I always had to shake hands with him. He insisted on that. At that point in time I was probably about four or five and I was unsure of my left or right hand and I invariably stuck out the wrong hand to shake hands with him. He'd say, "Girl, don't you know your left from your right?"

Thompson, on that same day, supplies some more information about the Virden family.

Great grandfather Virden had three children; Thomas, who was a river pilot; Hannah, who was married to Arthur W. Marshall, Sr., who was a pilot, and Lizzie, who never married and stayed at home and kept house for her father. The house was up on 2nd street in Lewes, diagonally across from the Episcopal Church. Hannah was the middle child. Her husband was more a contemporary of her father's than of Hannah's. (I think there was a fifteen, sixteen year difference in their ages.) Her husband's family were next door neighbors. Hannah's cousin, Frank McIntire, another river pilot, came to live with John Penrose Virden as a young boy after his mother died. His mother was John Penrose's sister. Later when he was a grown man and married, he built right next door to his uncle. So you have three of the river pilots right in a row there.

Harry Rowland tells a rather amusing story about becoming an apprentice pilot. The character of gruff John Penrose shows through.

My grandmother, a widow, lived in Second Street and was married to a pilot. (This was in June of 1932.) My grandmother and I were walking up the street. We stopped in front of John Penrose Virden and he was sitting. And across 30 feet of lawn she said, "Penrose, you told me you were going to take my grandson apprentice." "Well," he said, "I did take your grandson apprentice." "Yeah," she said, "but that was Jay. This is Harry." At the top of his voice he shouted: "Yank!" (Yank was that boy over there's grandfather and he lived next door but you couldn't see Yank and I guess that was 50 feet from porch to porch). He says, "Yank, I want you to put Henry Rowland's name in (I never went by Henry). I'm going to take him apprentice." Yank says, "Well, the pilots don't want any apprentices, Penrose." He says, "I don't give a damn. I'm going to take Henry Rowland apprentice." He says, "After all, Mary

Rowlands father took you apprentice when nobody wanted you, Yank." This is a true conversation--not every word, but this is it. I was embarrassed. Two men shouting back and forth. Big, fat, overgrown men.

D. A. (Tony) Potter on July 21, 1995, tells a story about visiting John Penrose Virden to take his oral pilot license exam. He says:

I went up to Captain Virden to give me this license exam. And he hollers for "Lizzy," that was his daughter. He had newspapers all over the floor, cause he spat in a spittoon. So, he said, "The winds northwest, and you're anchored at Bombay Hook, ebb tide in a square rig ship, tell me what you do to get her underway and take her to sea." I said, "Captain, I've never seen a square rigged ship." He laughed like hell. "Lizzy," he hollered, "bring my pants." He said, "I know what you can do. Harry told me, Harry Lyons. You brought a ship down for him." And he said he'd give me the license. Sounds, ridiculous, doesn't it? If you think about it.

Thompson continues on in her pilot history about the early days of the Association. She says: After the formation of the Association three of the eight pilot boats were kept on duty until the building of a new steam vessel the *Philadelphia,* which was commissioned in July 1897. One of the eight sailing vessels, the *J. Henry Edmunds,* was kept on as a tender.

Judith Roberts expands on the changeover. She says: The new association soon found that the old schooners were obsolete so, a year later, the steam pilot boat, *Philadelphia,* was constructed by Neafie and Levy of Philadelphia. She was 144 feet long, with a 26-foot beam and 10-foot draft. Its trial run in June 1897 was the occasion of much merriment as the new steamer steamed down the river commanded by the first President of the Association, John Penrose Virden.

(Roberts continues) ... The Philadelphia's service to the pilots was short-lived, however, as she was soon sold to the government to be used in the Spanish-American War. Renamed the *Peoria* by the government, she was fitted for service as a picket boat. Until the pilots were able to build a new boat, the tug *Juno* assisted them in boarding the vessels which plied up and down the river." The first *Philadelphia* were succeeded by two others bearing the same name, one of which became the Coast Guard cutter *Mohawk* which was bought by the pilots in 1948. The *Philadelphia* and the *Delaware,* a diesel pilot boat, were stationed in the bay to place

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10 Interview with James S. Roberts.

pilots aboard the incoming vessels and remove them from those coming down the river. The boats served as waiting stations for the pilots. After the arrival of the new steamer, five of the old sail-rigged schooners were retired. Gradually over the years the use of all the schooners was discontinued. Some of them went on to honorable use such as the *Thomas F. Bayard* which served on the Klondike during the Gold Rush of 1898 and later as a lightship in the Columbia River.[11] The *William Price*, however, was sold as a slaver which plied between Africa and Rio Janero [sic.] until she was caught.[12] The *Thomas Howard* was used as a fishing boat after her service to the pilots.

According to Thompson, the Act of April 5, 1881, entitled "An Act Regulating Pilots and Pilotage on The Bay and River Delaware" established a Board of Pilot Commissioners for the State of Delaware. This Board of Commissioners consisted of five persons, citizens of the State, acquainted with the navigation of the Bay and River Delaware. They were to be appointed by the Governor for terms of five years and the Governor fills all vacancies. Meetings were held on the first Mondays of May and November or at the call of the president.

The Board has full authority under law to grant licenses to qualified pilot apprentices, to make rules for their government while in service, and to hear and decide all differences arising between masters, owners of ships and pilots and between the pilots themselves.

The rates of pilotage are also regulated by the Board. The rates of pilotage for conducting a vessel from the Capes of Delaware to Philadelphia or other places on the Delaware River, or from the City of Philadelphia to the Capes of Delaware, were four dollars a foot up to twelve foot draft and six dollars a foot thereafter.

A pilot receives double pilotage for conducting a crippled vessel and he is also entitled to full pilotage if he is dismissed when detained by ice or quarantine. If negligence or incapacity on the part of the pilot causes damage, he is subject to a hearing by the Board, who may fine him or suspend him for any time they deem proper.

An interesting page from the 1880 Pilot Regulations Handbook provides us with the rates per ton and the mileages from Philadelphia to the Light-boat on the Five Fathom Bank, with a little information about the ice boats use.

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11 Interview with J. S. Roberts, May 2, 1979.

12 *Ibid.*

City Ice Boats.

The City of Philadelphia owns and operates three Ice Boats (side-wheel steamers) of power and equipment scarcely second to any in the world. Their office is to keep the channels of the Delaware and Schuylkill Rivers navigable in the severest winter weather, and the original intention was that they should be used solely for that purpose; but in time of emergency, when Tow Boats are not at hand and navigation is rendered very difficult, if not impracticable, except in their wake, they accept tows at rates which, though apparently high, pay but a small portion of their operating expenses.

Rates of Towage.

SCALE OF DISTANCES	Miles U.S. Survey	Tons. 70 to 200 and under 70	Tons. 200 to 500.	Tons. 500 to 800.	Tons. 800 to 1100	Tons. 1100 to 1300	Tons. 1300 and upwards
PHILADELPHIA TO OR FROM		Cents per ton.	Cents per ton.	Cents per ton.	Cents per ton.	Cents per ton.	Cents per ton.
Chester	16 ¼	18	12	11	10	9	8
Marcus Hook	20	19	13	12	11	10	9
Grubb's Landing	24	20	14	13	12	11	10
Wilmington Creek	28 ½	22	16	14	13	12	11
New Castle	33 ½	23	17	16	14	13	12
Delaware City	40	27	19	17	16	15	14
Reedy Island Light-house	46	29	20	19	17	16	15
Morris Liston's (Half Way)	52	31	21	20	18	17	16
Duck Creek Light-house	56 ½	32	22	21	19	18	17
Bombay Hook Point	61	34	24	22	20	19	18
Buoy of Middle	71	39	26	25	23	21	20
Ledge Light-boat	77	41	28	26	24	22	21
Buoy on the Fourteen-foot Bank	84	44	30	28	26	23	22
Brandywine Light-boat	90	47	32	30	27	25	23
Buoy on the Brown	94	48	33	32	28	26	25
Breakwater	103	52	36	33	30	28	26
Light-boat on the Five Fathom Bank	128						

Every ship arriving from or bound to any foreign port or any American coastwise ship carrying goods bound to or from a foreign port passing in or out of the Delaware Bay is obliged to take a pilot. All vessels engaging in and licensed for the coasting trade do not have to take a pilot, but if they do, they must pay him the regular fee.

To provide for the salaries of this Commission, each pilot licensed by the Board must renew his license yearly, paying the Board five dollars. Each pilot also pays fifty cents to be applied to the support of the Board.

Every month, according to the Constitution and By-Laws of the Pilots' Association for the Bay and River Delaware, the Treasurer of the Association divides the net earnings of the membership among the members, giving to each the proportion to which he is entitled. Third-class pilots receive 60 percent of the amount received by a first-class pilot for the first year and 70 percent after the first year. Second-class pilots receive 85 percent of what a first-class pilot receives.

Any member of the Association who is permanently incapacitated from serving as a pilot and surrenders his license permanently and any pilot who has been a member for fifteen years or more and who voluntarily surrenders his license or has it permanently revoked for any cause other than intoxication receives from the Association one hundred and fifty dollars per month.

If a pilot is temporarily prevented from working due to illness, he receives fifty dollars from the Association. If this happens, however, a paper is usually signed by all the pilots granting him an equal share in the month's earnings.

The officers of the Association, elected annually, are the President and the Secretary, who also acts as Treasurer. There is also a board of four directors. The President of the Association is a member *ex officio* of the board. Two of the directors are Delaware pilots and two are Pennsylvania pilots. If the President is from Delaware, the Secretary must be from Pennsylvania, and vice versa.

The Board of Directors has the management and direction of the activities and affairs of the Association and possesses all its powers when it is not in session with one limitation; that is, it does not have the right to purchase other vessel property to dispose of that held by the Association, or its members, without its consent. It has the power to insure the Association's property, to purchase needed supplies, to appoint clerks, to impose penalties for violation of the Constitution or By-Laws of the Association and for the conduct of the affairs of the Association or the management of its property.

Additions to the Association are made through the indenture of apprentices, each of whom must be nominated by a pilot. The number of apprentices is under the control of the State Board of Pilot Commissioners. As the pilots are under the jurisdiction of Pennsylvania as well as Delaware

pilot commissioners, an equal number of apprentices are taken from each state when vacancies occur due either to the death or the retirement of a pilot.[13]

Each pilot enters apprenticeship from a different angle, as we found out from the interviews held during the summer of 1995. D.A. (Tony) Potter recalled:

> *When I* was *taken apprentice, I had been on a Menhaden fishing boat with my uncle who was captain for two seasons. The second season I stayed home awhile and then I went on a coastwise tug boat out of Norfolk towing barges, coal barges, to Boston. The trip came into Norfolk and anchored the barges, empty barges, onto the dock. Staff went to telephone, no radio then, come back and called me up to the wheelhouse (chuckle) and I thought what have I done now? He said, I've got a message from Dave Burbage (D.W. Burbage), the representative of tug boats, to tell you that you've been appointed a pilots apprentice, Delaware River. The second mate on there, I'd been with him on the fishing boat, and he had a car in Norfolk. He took me to a boat and train, you know, and when I got back here I had to go to the Magistrate and get my indentures straightened out. That's about it.*

(Thompson continues from her history) ... In order to become a pilot the applicant must be twenty-one years old and serve a four-year apprenticeship on board a pilot boat. During this period the rate of pay was five dollars per month. The first two years are spent aboard the pilot boat learning seamanship and navigation. Since the beginning of WWII motor boats were purchased by the Association to be used for boarding and taking pilots off ships. These boats, operated by the apprentices, have relieved them of the tiring job of rowing skiffs back and forth between the pilot boat and the ships to board the pilots as had been the previous practice.

Walter Bennett in August of 1995 talked about how grueling his apprenticeship was. He said:

> *We literally worked in my apprenticeship. I basically worked eight hours on and four hours off, because we were on standby and then you went on watch for four hours—then you had four*

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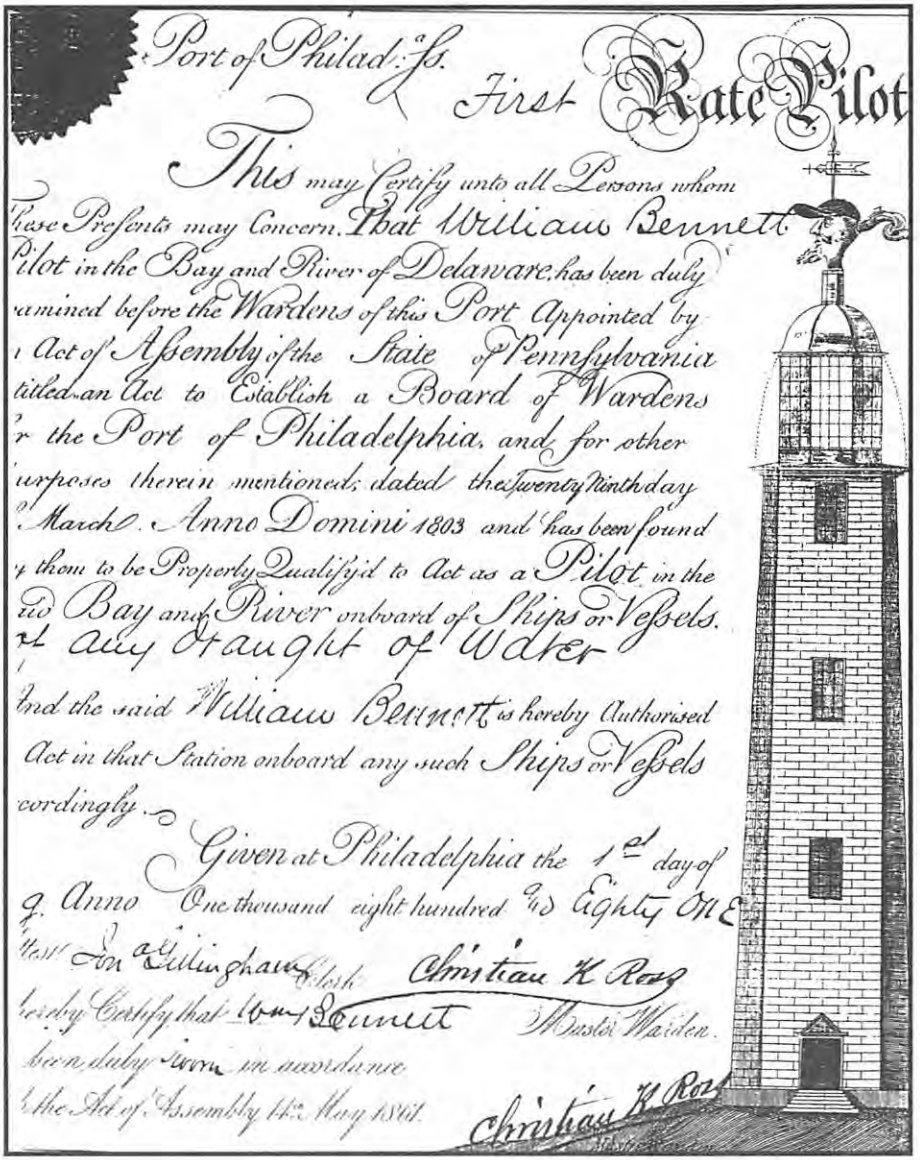
13 Although the details of these contracts have been updated since this paper was written, the spirit of cooperation remains. See final chapter by A. Knopp, pp 99-107



Port of Philad.a ss.

First Rate Pilot

This may Certify unto all Persons whom
These Presents may Concern. That William Bennett
Pilot in the Bay and River of Delaware has been duly
examined before the Wardens of this Port Appointed by
an Act of Assembly of the State of Pennsylvania
titled an Act to Establish a Board of Wardens
for the Port of Philadelphia, and for other
purposes therein mentioned; dated the twenty Ninth day
of March Anno Domini 1803 and has been found
by them to be Properly Qualified to Act as a Pilot in the
said Bay and River onboard of Ships or Vessels
of any Draught of Water
And the said William Bennett is hereby Authorised
to Act in that Station onboard any such Ships or Vessels
accordingly.

Given at Philadelphia the 1st day of
April Anno One thousand eight hundred and Eighty One
Test Jon.a Dillingham Clerk Christian K Ross
I hereby Certify that Wm Bennett Master Warden.
has been duly sworn in accordance
with the Act of Assembly 14th May 1861. Christian K Ross

1881 Indenture Certificate

hours off. Well, we were so busy and had so many ships that when you were on standby every time a ship came in around we got off the bunk. You didn't have to stand watch, but it was literally pretty rugged. One thing was good about it. The food was excellent. We had great food. We got paid five dollars a month, and boy we ate well. Heck, I got four days a month off- that was all I got in the first two years of my apprenticeship, four days a month off.

According to Thompson's history, the latter half of the apprenticeship was spent making trips up and down the river. According to the state laws governing pilots, the apprentice must, under the immediate inspection of a first or second-class pilot have conducted a vessel 48 trips up and down the river Delaware each year for a period of two years immediately preceding his application for his third-class license. He must give bond to the Governor in a sum not exceeding five hundred dollars, conditioned on the true and faithful performance of his duties and services.

Pilots are licensed for 15-foot, 23-foot, and unlimited-draft ships and these licenses are in force for the term of one year.

Cooperation by the pilots with the quarantine authorities is maintained. All foreign ships or ships with foreign cargoes or ships which have come through foreign waters must stop at the quarantine stations at Marcus Hook and Reedy Island.

Besides the pilots' association itself there are two other organizations in which nearly all the pilots have a large interest.

The Pilots' Society for Distressed and Decayed Pilots and Their Widows and Children, which was organized in 1782, was formed to provide for the widows and children of men of this occupation. The Board of Governors consists of 12 members, 4 residing in Cape May, 4 in Lewes, and 4 from Philadelphia. Every pilot holding a certificate or license under the laws of Pennsylvania or Delaware is eligible for membership and each member pays dues yearly. Every retired member or his widow receives from the society fifteen dollars each month. The society also allows one hundred dollars to be paid to the widow or anyone properly authorized to pay toward the funeral expenses of a member.

There is also a Delaware Pilots' Club maintained in the pilots' office building at 322 Chestnut Street, Philadelphia, with facilities for recreation and overnight lodging. Admission to membership to this club may be had only by invitation and all members must vote upon the admission of a new member.

The only competition to the Pilots' Association is afforded by a group of men who have Federal licenses for the waters of the Delaware Bay and River and who work independently. They are known as "mud pilots" and only a small amount of work is taken by them as ship owners. Agents find it more to their advantage to work through a reliable, organized association. These men are not licensed by the state and are qualified only to pilot ships engaged in coastwise trade.

The pilots use a rotation system to carry on their business. One trip up the river and back constitutes a round trip. The pilot is then off until his turn comes around again. Although he does not do all the actual steering of the ship while on board, he stands on the bridge and directs the proper course of the vessel.

All the traditions of pilotage have not disappeared since the formation of the association and the modernization of the methods of carrying on the work.

One incident which compares with any others of the old sailing days for heroism was the beaching of the burning liner *Lenape* in the fall of 1925, a mile or so above Lewes.

The situation demanded swift action. A pilot boarded the burning ship and piloted the vessel through a safe channel toward the shore. It wasn't until the pilot boat's skiffs had made trip after trip between the blazing liner and the pilot boat and more than 300 hundred men and women were taken off that the pilot left his post.

The pilots have had their share of close calls. There is always the danger of the pilot losing his grip when boarding a ship in a heavy sea and being flung down from the Jacob's ladder or the danger of vessels ramming together or into the pilot boat in a heavy fog. It is a tribute to pilotage, however, that there have been so few serious casualties.

Walter Bennett talked about how tricky an operation it was getting off the pilot boat and onto the ship during August of 1995. He said:

> *Harry Rowland had a line wrapped around his leg...we'd go up and get in the lee of the ship and lower the small boat and four sailors, or apprentices, would get in there. It was stroke oar after midship, forward midship and bow, but I can't remember whether the stroke oar was on this side or that...We got to start somewhere, so we boarded a ship and we come back to the pilot boat and grab hold of these box and tackles and we hook one end to the forward end of the skiff and you'd hand some sort of a line. Hook another end after skiff. then there was a windlass.*

These Certify, That ANDREW F. KNOPP, JR.
was legally admitted a *MEMBER* of the Society for the relief of
distressed and decayed PILOTS, their Widows and Children, at a
meeting thereof, held at Philadelphia the 1st day of March
in the Year of our Lord One thousand nine hundred and sixty one
Given under my Hand and the Seal of the
Society the 1st day of October 1967

Attested Daniel D. Dunlop Sr. President
And Richard G. Steers

Society for Deceased and Decayed Pilots and their Widows and Orphans Certificate

They'd haul the thing up till it was two blocks and then you take hold. This is bad in winter time, but anyhow...take a hold of this rope and hold it over your shoulder like this. Then you'd holler "in the bow" and the guy would throw this off the windlass and make it fast. Then the guy in the stern would yell "in the stern" and they'd throw it off and make it fast. I think it was maybe the Delaware, but the one windlass was on the other side. You couldn't actually see the skiff you had to hear it. They dropped me, somebody hollered "in the bow" and they dropped the stern and I was in the stern, cold winter time. It was a very highly skilled operation and from captain of the pilot boat, you get guys like Harry Rowland could back that pilot boat up against the side of a ship until the flag staff on the Philadelphia was maybe 25 to 30 feet from the ship and he'd hold her right there. Then you had some pilots that were just atrocious. From the time you lowered the skiff until you put the pilot on the ship and got her back, with certain pilots you might be a quarter mile away and this is winter time—cold. Old Tracy used to say, alright, boys, now take your time, take your time boys, but hurry up.

(*Thompson continues her historical narrative*) During World War II, these men were so vitally important to the war effort that the Secretary of the Navy ordered the U.S. Coast Guard to take over their jurisdiction for the duration of the war. This was the first time in the Association's history that the Government had taken such a step. The men were given commissions ranging from Lieutenant (J.G.) to Lieutenant Commander in the temporary reserve according to their class license. Except that the men wore uniforms, the Association functioned as it had in the past.

(All of the oldest living pilots interviewed in the summer of 1995 had stories of their time as pilots during WWII. Although it was a dangerous time, it was a good time for the bay and river pilots.) Tony Potter talks about how he ended up in the Coast Guard:

Five pilots had gone into the Naval Reserve. The Navy's pitch was they wanted to keep you here. I don't know why, but they did. And so, anyway, we did and we all got called on active duty and went everywhere but here. (Chuckle)... Well, anyway, I was in a section base in Portland, Maine, waiting for a mine sweeper to be completed because we were going out in the South Pacific. You know how happy I was. (chuckle) Anyway, one day the commanding officer sent for me and I went up there and he

handed me this letter and he said what do you know about that? He was upset and I don't know why I looked at him. Oh, I know, if my wife tells me or I hear from her how busy the pilots are, suppose somebody got to somebody got to somebody. I told him I'd go back to help out. It said "at your request, and with your consent, you will be returned to duty!" I guess that's it (how I got back to the Coast Guard).....

Once back, and at work, you knew roughly how many convoy ships you might be going to have coming in the open mine fields. You see, they came out of New York in the morning and had a convoy down here. And, if they were going to Philadelphia, of course it went up there. And if they were going to Baltimore and the Chesapeake, they went through the canal. Anyway, you were on the ship day and night... in the middle of the night you might not be doing anything. So, Chris Bachmann, did I mention him? he said "the hell with it. I'm going back to the Navy." (Chuckle) John Church, I don't think he came with us. I think he stuck it out. Didn't he become a rear admiral in the Navy?... I thought this was humorous. You were on duty as a Coast Guard officer except when you were on the bridge of a ship. Then you were acting in a civilian capacity. Sounds crazy, doesn't it? But it wasn't crazy because the smartest people in America were running that war out there, in my opinion, and they knew if a Coast Guard officer was on the bridge of that ship navigating inside and they had a collision sometime in the future that collision has gotta be blamed on somebody financially. And they didn't want it to be the U.S. government. (chuckle) You'll put down I probably thought that one up.

Jim Roberts (during the August 31, 1995, oral history interview) asked Harry Rowland about the war years and bringing the convoys in and out. Pilots were working pretty hard then. Harry said:

I was 73 days and not in my house at night time or all night. I'd come ashore in the morning. I'd bring a ship out of anchorage (you remember this) and we'd stay home until they said come on back aboard the boat for the incoming convoy. And Jay (my pilot brother) would walk up the street and we'd walk out the back door and go over and get in Ellis' boat. Every night. So I didn't sleep home that night.

Walter Bennett added some additional information to the story of piloting during the war.

First of all, the United States Coast Guard took over every pilot boat in the country. They made them Coast Guard Reserve vessels. They supplied the crew and paid all the fuel bills and shipyard bills and everything. The pilots still collected their pilotage and dividend. So this was quite a bonus for the pilots. I was an apprentice pilot. I had a year to go and I had probably one of the most spectacular careers in the services in the United States... I enlisted in the Coast Guard as a seaman first class. I was getting paid five dollars a month. Three months later I got promoted to chief boatswain mate. That takes a lifetime to do. Now I got a hundred and fourteen dollars a month which is a ton of money. Six months later I was a lieutenant senior grade, six months later I was a lieutenant commander. Now as an officer, we were getting paid by the pilots not by the Coast Guard. As a crew member I was getting paid by the Coast Guard. Art Marshall said, "Lt. Commander Arthur W, Marshall USG-T (temporary) HI HO." I said what does the HI HO stand for, Captain Marshall? He said, "half in and half out." A bunch of us were in our full uniforms and we were in the station, right in the middle of the damn war. Somebody came up and wanted to know who we were. Old Captain Pres Joseph said, "We're the band, we're the band. We're going to be playing at the Hotel duPont tonight." Some of those guys... They had to have us in the Coast Guard for disciplinary reasons, security and all sorts of things. The war was a bonus for the pilots. They worked like the devil, awful, awful busy, but they got comparably well paid for it too.

To the next question of Jim Roberts, "did you ever find yourself looking through your periscope at a German captain?" Bennett replied:

You know, I don't remember ever having been afraid or worried particularly about it. I should have been. We had mine field over mine field. It was operated by us on one of the capes. They had buttons they pushed to make various mines go off. There was a buoy channel through this mine field and they had a pilot boat outside of the mine field. Ships would come in with their lights on, these convoys. We'd put a pilot on board. The pilot'd take her through the mine field and go on up. I saw,

partially saw, a Navy tug hit a mine and there wasn't anything left. It was miles away. Don Douglas had seen her. He said, "My God, look at that." There was so much secrecy involved. I never remembered cruising in the Philadelphia *worrying about hitting a mine.*

In town Helen Potter remembers stories about survivors from ships sunk by Germans. She said:

A lot of people saved from the sinkings in WWII were brought in here. That was very hush-hush at the time. My father was C.O. down at the Harbor Entrance Control Post where the pilot's tower is now. And that really got to him. Survivors, you know. So it was busy around here.

Joan Thompson remembers hearing POWs from a distance.

We lived on Savannah Road right off from the junior high school (which was the high school then). And just down on Savannah Road beyond where we lived there had been the Civilian Conservation Camp which had been there during the Depression. The CCC was part of the Works Project Administration that was converted into a Prisoner of War camp. During the summer, because we were just about a block and a half away, I can remember hearing them sing. They sang in German a lot and you could hear them in the evenings. We'd see them being transported on the buses, some school buses, to farms or to the Menhaden fish plant to work. I do remember that they seemed very, very young. That was toward the end of the war. I have no idea of the number that they actually had here but Lewes was quite a bustling town during WWII. The Coast Guard had a commissary here and there was a Coast Guard section office. The Navy was here, and of course Fort Miles. There was a base hospital. They built the base hospital out by the edge of town near where the CCC camp was. The town just exploded with people. It had been very quiet up to that time.

In Joan Thompson's written history, she reminds the reader that these (bay and river pilots) men who played such an important role in the commerce of one of our largest ports, Philadelphia, were continually working to make their service more efficient and to carry on the proud tradition handed down by the generations of hardy seafaring men before them.

Judy Robert's history pays homage to the navigational aids of the pilots...a necessity for the competent execution of a pilot's job. These include the buoys to mark the channel in the river and lighthouses as well as the rare sophisticated mechanical aids on the ships themselves such as radar. The aids in the bay and river (which notify pilots of any changes which may occur) are today maintained by the Coast Guard.

The Dutch very early recognized the need for physical navigational aids and by the middle of the seventeenth century had placed wooden buoys in the river.[14]

In 1725, the federal government constructed a lighthouse of sorts on Cape Henlopen, but it was soon proved to be ineffective, primarily because the range of its light was so short. Lt. Henry Fisher, who had located and placed buoys in the river channel at the direction of the government, was asked to choose a site for a more permanent lighthouse on Cape Henlopen, which he did. The Cape Henlopen Lighthouse was built approximately 1,552 feet from the coastline of ashlar granite from quarries near Wilmington. It was about 70 feet tall and was originally lighted with whale oil which cast a light of about 3 to 5 miles to sea. Later when a more powerful lantern was installed in the lighthouse the range increased to 17 miles. In 1777 the light was extinguished by the British sailors who sent a longboat ashore from the *Roebuck,* a British man-of-war that cruised Delaware waters during the Revolutionary years. The lighthouse was also gutted by fire and did not return to duty until 1784. Except for this one time, the lighthouse continued to serve faithfully until, due to the erosion of the cape, it toppled into the sea in 1926.

A smaller lighthouse called the Cape Henlopen Beacon was built in 1825 in an effort to help navigators avoid the dangerous sand point that had formed. There are several other historical lighthouses on the Delaware Bay and River, among which are Miah Maull light in the middle of the Delaware Bay and Cape May Point light which was across the bay from Cape Henlopen.

At the entrance to Delaware Bay in 1892, the government placed *Overfalls* lightship, which served until 1962, when it and other lightships in east-coast harbors were deemed obsolete and discontinued.

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14 James E. Marvil, *Pilots of the Bay and River Delaware* (Laurel, DE 1965).

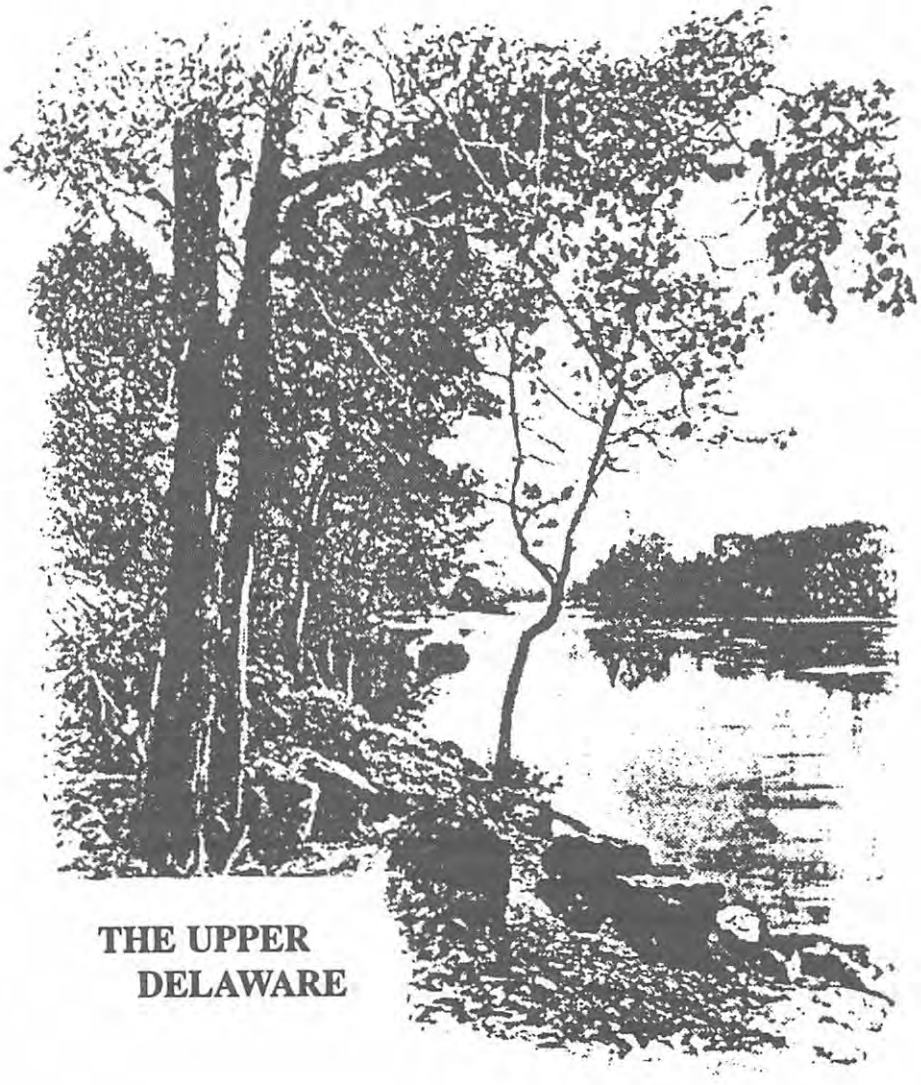
In 1828, the federal government began in Lewes Harbor its first harbor improvement. Called a "great national work" by James C. Booth, who conducted Delaware's first geological survey, the Delaware Breakwater took forty years to build. The breakwater was 2,800 feet long and cost over a million dollars which was a huge sum in those days. Although improvements to the breakwater were later made, it alone did not create a safe harbor for the ships which anchored Lewes. So, in 1897, the 8,200 foot Harbor of Refuge was begun at the point of the Cape. On its completion, four and a half years later, it provided, with the earlier Breakwater, over a thousand acres of safe anchorage for ships. The two breakwaters did so much to lessen the danger to ships in the harbor that two of Lewes' most thriving businesses, were no longer worthwhile. The salvaging of wrecks and "anchor-sweeping" in the harbor for many years had been most profitable for some Lewes residents.

Another aid to mariners at Lewes was the Maritime Exchange which had been situated at the light house and by 1880 was housed on the Delaware Breakwater. It was used as a transfer point for messages and other essentials from ship to shore. In 1942, the Exchange was moved ashore and is now housed on an old Army observation tower at the point of Cape Henlopen.

Certainly the Lewes Lifesaving Station can be termed an aid to navigation as the men stationed there were always ready to aid sailors and their ships. It was originally established in a primitive shack on the bayshore near Lewes until a new building was built in 1938. Later a more modern building was built at Indian River Inlet. The Lewes station later was a dormitory for the College of Marine Studies of the University of Delaware until it was sold to the Pilot's Association in 1978 for use as an on-shore base. The pilot boat *Philadelphia* which was replaced by the new shore base has become part of the maritime center recently established by Kent County.

In a speech given to the United States House of Representatives in 1906, the Hon. Stephen Sparkman of Florida spoke for all pilots when he said (as quoted in Roberts p. 17):

> *No skilled vocation or profession performs so much and obtains so little from the great interests they serve. Facing danger, often beyond the hope of relief, risking life for the cause they serve, they are ever at the post of duty.*



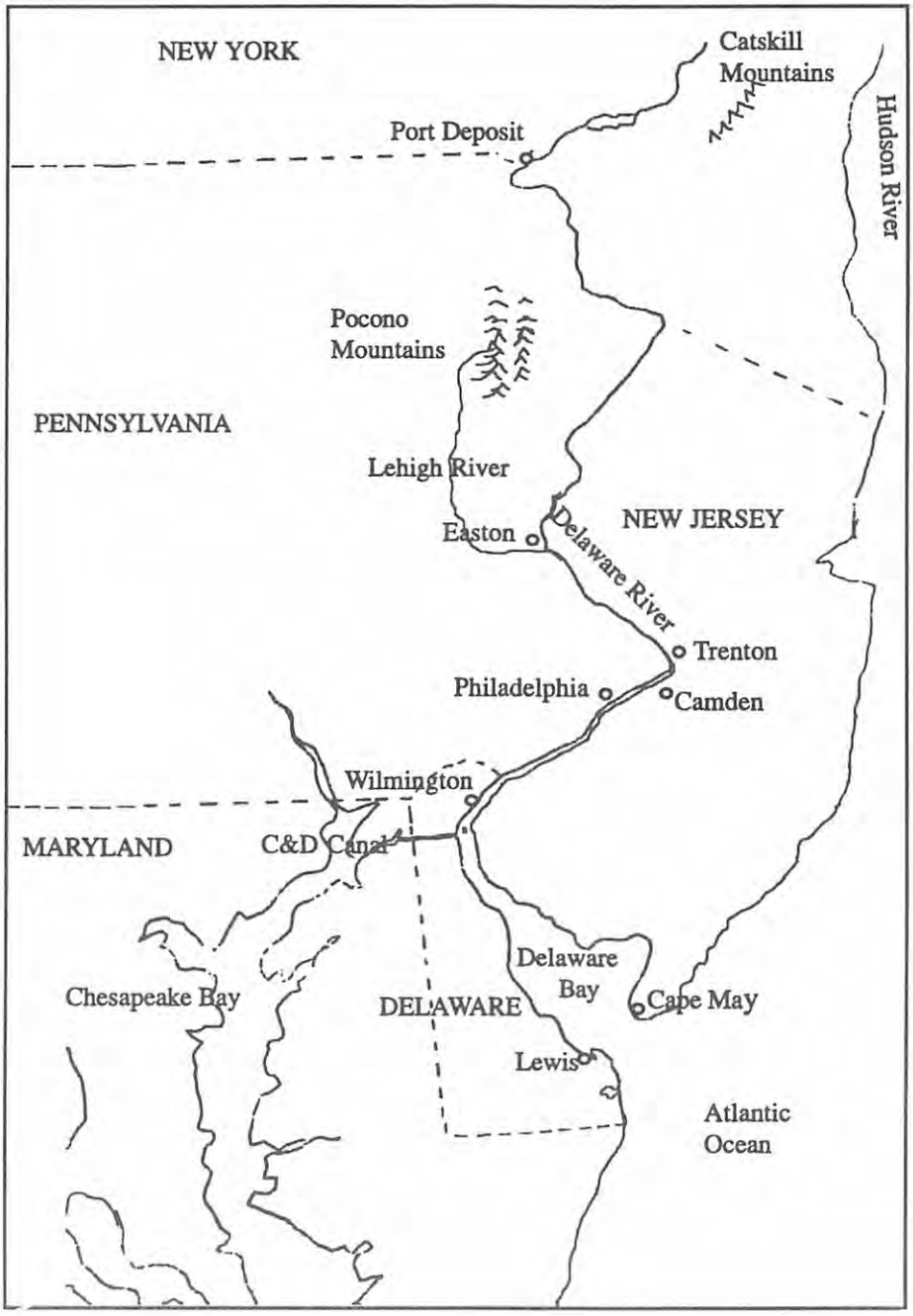
THE UPPER DELAWARE

DELAWARE BAY AND RIVER

ORIGINS

(The following pastoral description of the river from its sources to its terminus written many years ago will serve to provide the reader with a sense of the Delaware River and Bay's extent.)

The sources of the Delaware River are found under the western shadows of the Catskill Mountains in the state of New York. Its east and west branches, flowing thence upon either side of a lateral range of highlands, are united near Port Deposit, and upon its course to the sea the stream forms the partial boundary line of four populous States. The upper reaches of the Delaware for two hundred or more miles present a continuous series of beautiful vistas much loved by the landscape artist and favored by the angler, where long and placid intervals between lofty promontories are broken by swift rapids as the river gathers volume on its way. Its principal tributary is the equally picturesque Lehigh River, meeting it at Easton, and the outflow below this point drains a territory of 11,000 square miles. The Delaware River first lends itself to the uses of navigation at Trenton, N. J., to which point river steamers regularly ply, the depth of the channel varying from seven feet near Bordentown to thirty-nine feet at the mouth of Frankford Creek. In front of Philadelphia, and from this city to the sea, a distance of 103 miles, the depth is sufficient for the largest sea going ships at the load line. From the last of its rapid shallows the bed of the river is that of an alluvial tidal estuary, broadened by the erosion of ages and flowing with the influx and retreat of each day's tides between shores fringed with groves, bordered by broad farms, embellished by splendid country seats and emphasized by vast and infinitely varied industries. It is one of the great marine highways of the world.

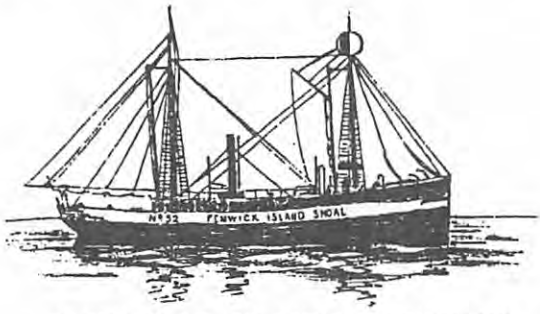


Source of Delaware River at the Catskills

LIGHTS OF THE DELAWARE

Pilot Manual 1880.

(Almost all of the lights described here are now gone, but the treachery of the river and bay remains. Just imagine how necessary they were and what security these lights provided the pilots.)



FENWICK ISLAND SHOALS LIGHTSHIP, NO. 52, from the 1895 Pilot Handbook, p. 69.

The finest type of light-ship upon the Atlantic coast is the new vessel at Fenwick's Island Shoal, off the Capes of the Delaware. This admirable craft was built at Bay City, Michigan, towed down the great lakes, the St. Lawrence River, and along the tempestuous Northern seas to Edgemoor Station, in the Delaware, where she was fitted out in September, 1892. The new vessel is 118 feet 10 inches long, 26 1/2 feet beam, and 14 1/2 feet hold. The principal novelty is the fact that No. 52 is provided with compound engines, steam whistles, steam windlasses and propeller, thus enabling her crew to not only ease up the strain of her anchor cables, but to take good care of herself in case of going adrift, as did the former light-ship on this shoal in the Winter of 1891-2.

Another sentinel of the Delaware River is the lonely light-ship at Five Fathom Shoal, a schooner-rigged craft, bearing red hoop-iron day marks at each mast-head, hull straw color, and containing the words "Five Fathom Bank" and "No. 40" upon either quarter. It is located south of east of Cape May Light 18 and 3/8 miles.

Having left this astern, the pilot is guided through the broad space between Capes May and Henlopen, up the bay and river, by forty-eight lights, varying in magnitude from two of the first-class at the Capes to the small lens and tubular Henlopen lanterns. Eight trumpets and bells warn him in foggy weather. The course of the channel is defined by a series of tangents or ranges. The breadth of the water between the two Capes is 12 statute miles, and the greatest breadth of Delaware Bay is 25 miles. The Bay practically ceases opposite Bombay Hook, where the breadth between the Delaware and New Jersey shores is 4 miles. Below Wilmington

the river is 1 mile wide, and below Philadelphia it has an average width of a half mile.

Cape May light-tower, at Cape May Point, carries a light of the first order, and is 159 feet in height. It is distant 11 miles from Cape Henlopen Light, and 18 and 3/8 miles from Five Fathom Bank Light-vessel. It was established in 1823.

FRONT LIGHT-BREAKWATER

A light is maintained upon each end of Delaware Breakwater, that upon the western end being called the "Front Light."

Upon the seaward side of Cape Henlopen, crowning a high sand hill, is the tower and dwelling of Cape Henlopen Light. The light is of the first order, and is 128 feet above sea level.

CAPE HENLOPEN LIGHT HOUSE

In the open reaches of Delaware Bay are Brandywine Shoal Light, Fourteen-foot Bank Light and Cross Ledge Light. Near Bombay Hook is Ship John Shoal Light. Mispillion Creek Light, Mahon River Light, and Duck Creek Lights are upon the Delaware shore. Maurice River Light, Egg Island Point Light, and Cohansey Light are upon the New Jersey side of the Bay. The contracted channel above Dan Baker Shoal is indicated by groups of Range Lights. (pp. 69-72)

THE PHILADELPHIA MARITIME EXCHANGE REPORTING STATIONS

One of the most important functions of The Philadelphia Maritime Exchange is the telegraphic reporting of incoming and outgoing vessels from its chain of stations along the river and bay. These reporting stations are located at Delaware Breakwater, Lewes, Del., Reedy Island (National quarantine station), New Castle, Del., and Marcus Hook, Pa. The lower station upon the storm-beaten Breakwater is connected with the mainland by a telegraph cable, which, from its frequent breakage by vessels anchoring in its vicinity, is one of the largest items of expense connected with this invaluable service. In addition to the instantaneous reporting and bulletining of all vessels, communication by telephone is maintained at the branch office, at Lewes, Del., with all of the near-by life saving stations, and all wrecks or other marine casualties are promptly reported for the public information.

The lower Reporting Station is a weather-stained but staunch little building upon the western end of the Breakwater. The Breakwater itself is half a mile long, and rises about twelve feet above the sea level. It is simply a mass of rocks dumped into the sea by prodigious labor until the required rampart was completed. The survey of the work was commenced about 1825. Running at right angles with it, and at a distance of about 400 yards, is another stone pile. The intermediate gap is filled up to low water surface.

The signal station is a one-floor frame house, clamped and chained to heavy beams anchored into the rocks. Just beyond it is the tower of the front light of the Breakwater. At the eastern end of the Breakwater is another light. Boats hang from davits upon the exterior of the signal station, by which the three men on duty may in turn go to and from the shore. The station contains four rooms: the general room, in which are the telegraph instrument, signal flags, telescope, etc.; a kitchen, and two bed-rooms. Outside is the flagstaff, from which the signal flags flutter.

Delaware Breakwater with the Otis Smith fish factory in the background.

Every ship passing up the bay reports her name by means of the International Signal Code, and such other facts as may be of value or interest to her consignees or owners. By the same method orders are communicated to tugs. Storm and weather signals are also displayed. The worst storm ever known at the Breakwater occurred September 7 to 11, 1889, when thirty-two vessels were driven ashore, all of which, except seven, were afterwards floated. Occasionally a storm drives a ship upon the solid mass of the Breakwater, as in the case of the "Morro Castle," November 27, 1888, from which, happily, the entire crew were heroically rescued by the inmates of the signal station and the lighthouse. Another ship, the Norwegian bark " Patriot," was wrecked here in May, 1889, and again the crew were saved.

The population of the little town of Lewes finds occupation in the employ of the Government, the Maritime Exchange, and the wrecking concerns, piloting, and other business of the sea; and life in such a community although in the main monotonous, is often punctuated by the most stirring excitements when, as in the case of great shipwrecks, such as are an inevitable part of seafaring enterprises, half drowned strangers are cast among them, the care of whom is accepted as a matter of course by the humblest cottager upon the sands. That Lewes has its memories and romances may be well imagined. Local tradition tells of British men-of-war that plagued its people in the Revolution and the War of 1812, and sent their shot through the gray little cabins. Here, during her early life, resided the famous litigant, Myra Clark Gaines, and Caesar Rodney, one of the signers of the Declaration of Independence, lived here. In the cemetery of the Protestant Episcopal Church are the graves of many a staunch pilot, many a stranger whose life was ended by the waves upon this desolate coast.

Recently a survey has been made by Government engineers for a much larger breakwater, or National harbor of refuge, located at a greater distance from the shore, which when built will accommodate the largest modern vessels, and provide far greater safety by the increased sea room and depth of water than that now in existence.

The employees stationed at the Breakwater Reporting Station are: John H. Richards, Superintendent; W. A. Johnson, Assistant Superintendent and Boatman; Frank Fuss, Assistant and Telegraph Operator.

Pilot Manual 1880.

PILOT RESPONSIBILITIES

PILOT SERVICE

SHIP JOHN SHOAL LIGHT.

Pilots are associated in societies in all the larger ports of the United States. In Pennsylvania, their government is vested in the Board of Port Wardens of Philadelphia, which administers the laws "for the licensing and government of the pilots and regulating pilotage of the port of Philadelphia," and also, so far as their duties remain, the several laws of the State for the regulation and preservation of the harbor of Philadelphia.

For the pilotage of the Delaware Bay and River, there are now eight boats in service (four from Pennsylvania and four from Delaware), the number of pilots licensed by these States being ninety-six. This gives twelve men to each boat. The number of vessels piloted during 1893, including both inward and outward passages, was 2418.

When a pilot boat is on a cruise she must keep outside of a straight line drawn from the buoy on the lower end of the "Hens and Chickens" shoals off Cape Henlopen to the Whistling Buoy on the "Overfalls" off Cape May. She must display at all times the recognized pilot signals, which by day is a dark blue flag at the mainmast head, and at night a white light at the masthead, visible all around the horizon, and a flare-up light exhibited every fifteen minutes. During the time allotted for the boats to cruise, which is seven days, they are not permitted to return to the Breakwater or Cape May, unless the number of pilots on board is reduced to one, when he may decide either to continue the course or come in for pilots.

Each pilot boat has its distinguishing number conspicuously painted on the sail. When a vessel is sighted, the boat bears down upon her. In daytime signals are easily exchanged, and if the vessel happens to have picked up a pilot further out, the schooner goes on her way again. The captain of every

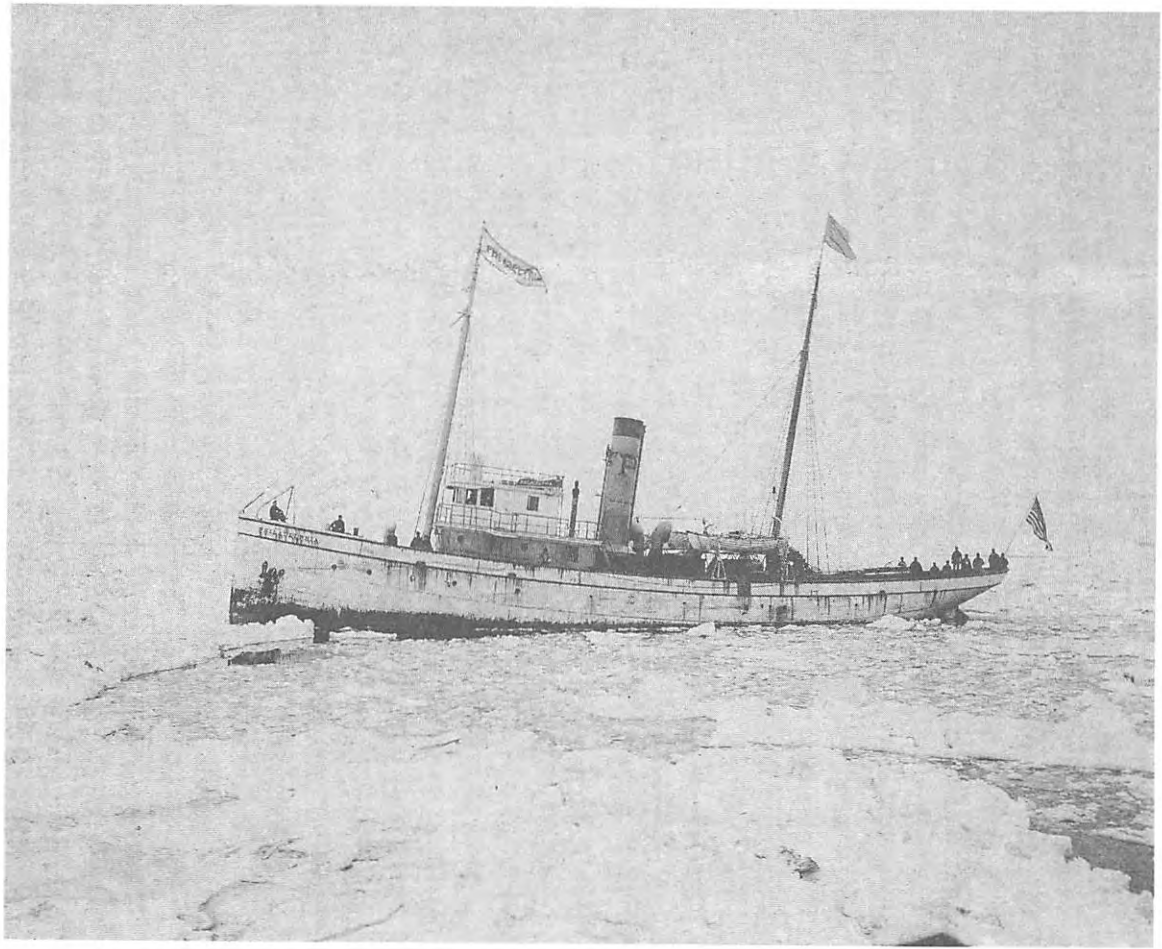
vessel is required to accept the services of the first pilot tendering. Not long since one of the Sandy Hook pilots brought an action for damages against one of the big racers entering New York, which was trying to beat the record, and refused to slow up in order to take him aboard, but waited until after "making" the Sandy Hook Lightship and there took another pilot. He recovered heavy damages.

It's a rough enough life, beating about outside the Capes in all weathers in a small schooner, waiting to intercept incoming ships. In summer the life is pleasant enough, but in winter it is quite different. Indeed the life of a pilot is one of continual danger and responsibility. A pilot boat has often to put out to sea in the teeth of a gale; and sometimes, as happened in the case of the ill-fated *"Turley"* a few years ago, the boat and all on board are never again spoken of. Sometimes these staunch little pilot boats go out further than others. The writer has crossed the Atlantic many times. On one of these occasions we took on the pilot some four hundred miles out at sea, while another time we had to wait outside the Capes for some hours before we could get one.

Oftentimes the steamers have to lay to in rough weather in order to wait a moment of calm, when the pilot may board the ship with safety, for it is no small matter to venture upon the rough sea in a rowboat, and very often the pitching and tossing of the steamer make it difficult for the pilot to approach. While in former times it not infrequently happened that the pilot of an outgoing ship was carried across the ocean, a law compelling vessels to remain at the Capes twenty-four hours, to give the pilot an opportunity to be taken off, has reduced this danger to a minimum. One of our Delaware River pilots, Captain West, was on one occasion taken to China.

Harry Rowland on August 31, 1995, told a story of his grandfather during a freeze:

> *My grandfather went up the river in a sailing ship. And the ice caught him at New Castle. My grandmother said that he didn't come home for three months. He sat on that... Well, to be honest the ship you got on at the Cape was yours until you got it at its destination. Now then we take them off and we have that advantage. I'm sure he started this stay, thinking it's my vessel and when I can get through the ice, or a tow boat can come and tow me into Philly... She said three months—always told that story that way. How long he stayed I don't really know.*



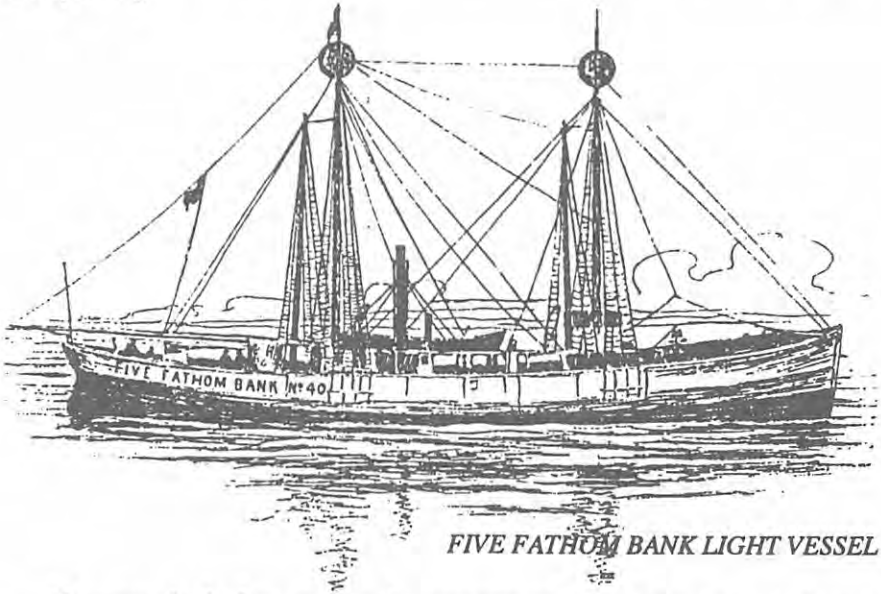
The Philadelphia on Ice

Jim Roberts on August 31 said, "the only way you could get off was walk." He remembers a lousy weather story concerning Harry's brother Jay:

I've got a good story that involves Captain Jay. Do you remember when you were Captain of the Philadelphia and I was mate? And it was winter and I guess it was windy and the ice was everywhere and we were stuck there for a week as captain and mate and in the night I had to wake him up and tell him that we were going to go off station because we had one or two boats on the beach and there was just no way in the world that we could board ship. But he had to be apprised of that, being captain of the boat, and so when he got up his first thought was that we were having the black vapor. I Remember you saying that. Because when the wind was blowing so hard and it was so cold and it still wasn't frozen, the heat from the sea, whatever heat you might call it, turned into vapor that blew and it was so dense that it was just like being in the clouds. We stayed there for three days at anchor and there was a strike on and we didn't have anything on board in the way of that stuff that pilots tend to drink. I thought, because we were going to be drying out, you know, we were going to spend an old fashioned week. About two days into this mess, Captain Rowland says, "You know what? I did stick something in my bag just in case." I said, "Well this is a pretty good occasion." We had a couple of pilots there who had volunteered to do ships. John Church was doing a red ship as I recall. The bottle made one round around the table and that was the end of that. But that time established the low water mark for the Delaware River, because it blew all the water out of the river and it was 12 feet below zero. The tide. Do you recall that? I'll remember that forever. It was probably the worst mess that I've ever seen as far as weather goes. We tried to anchor the pilot boat a couple of times and she wouldn't hold. Then the guys were out on the bow where it was just freezing to death. We finally got her anchored way up in the shears which is between the shoals there to stay there, and that's where we laid until the wind died out.

The pilotage fees vary considerably with the draught of the ship and the distance piloted. Each pilot shares with the rest of the crew on his boat. It is an unwritten law on big ocean steamers that all the officers must be on the bridge when the pilot takes charge. Except in the matters of discipline,

the command of the vessel is then vested entirely in the pilot, who can have the sails, steering, etc., of the ship carried on entirely at his discretion until the limit of his district is passed, the captain only resuming his powers when the question of taking up ground in a harbor is concerned. The general rule as to the responsibility of the owners of the ship is, that no owner or captain of a ship is answerable to any person whatever for any loss or damage occasioned by the fault or incapacity of any qualified pilot acting in charge of such ship within any district where the employment of the pilot is compulsory.

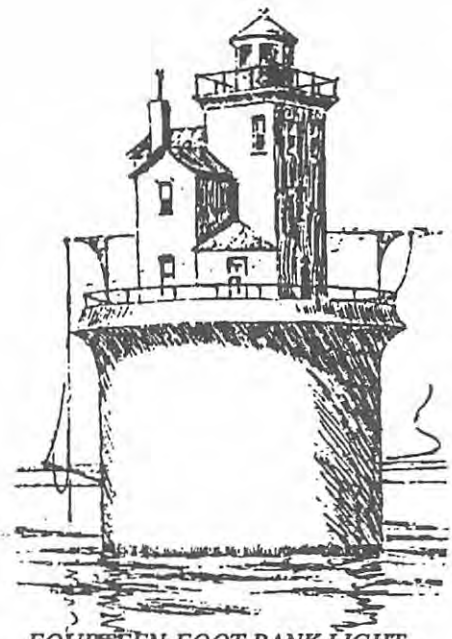


FIVE FATHOM BANK LIGHT VESSEL.

Comparatively few among the passengers know how a great steamer is guided from the open sea in safety up to her pier. I will tell you. Let us suppose we are on an incoming steamer from Europe. At four bells in the evening (six o'clock), when off the Five Fathom Bank Lightship, about twenty-three nautical miles from Cape Henlopen, and 110 from Philadelphia, we see a little schooner, flying a dark blue flag from her masthead, approaching, and the steamer's speed is reduced until she is moving with only enough speed to enable her to keep her steerage-way. It is the pilot boat. When the schooner has reached a point about fifty yards distant, a small boat is lowered, and puts off for the steamer, and soon the pilot climbs the ladder. The ship is under his charge from the time he mounts the bridge until she reaches her dock, and the responsibility of the captain and officers ceases, except in the matter of discipline or on the question of selecting ground for anchorage; nor does the pilot leave the bridge even for his meals, until the vessel is brought into port.

The modern system of range lights has made the navigation of rivers as safe by night as by day. A range light consists of two lights placed one behind and above the other at a considerable distance, and the only problem for the pilot to solve is to keep his vessel in such a position that these lights shall show in a perpendicular position. That these lights may be known from others that may happen to be near them, each has a distinguishing peculiarity, such as a "flash" light, or an "eclipse" light, the latter of which shines steadily for a certain time, and then disappears for a stated interval. Where a "range" is impracticable, or for other reasons, a great help to pilots and masters is given by making a light show different colors through different arcs of the circle. Thus, for example, on the lower end of Reedy Island there is a light which shows white from S. S. E. through northward and eastward N. by E. 7/8 E., except in the narrow sector between N. by W. and N. 3/8 E., in which the light shows red. From N. by E. 7/8 E. to E. N. E. the light shows red from seaward. Thus, to vessels bound down the bay with the Finn's Point ranges on, or up the bay with the Port Penn ranges on, the change of this light from white to red indicates that the turning point, the intersection of these two ranges, has been reached. Buoys of different shapes and color are used to mark the outlines of shoals or other dangerous points. With this explanation, we return to the vessel off Five Fathom Bank Lightship. These ships mark a bank nine and one-quarter miles in length, ranging in breadth from three-fourths to two miles, with a depth from five fathoms to 14 feet. From these the pilot shapes his course W. 3/8 N. twenty miles, which brings us to the entrance of Delaware Bay.

A range for entering Delaware Bay is formed by Delaware Breakwater front light and Delaware Breakwater rear, a fixed white light shown from a brown iron tower, about two miles N. W. from the town of Lewes, Del. This range runs E. 1/2 N. and W. 1/2 S., and carries a vessel in clear of McCries' and South Shoals. A vessel entering the Capes will be guided clear of all danger by this range, and being on this range when Cape May Light bears N. N. E. 3/4 E., or when Brandywine Light shows a white light, she is clear of the Shoals, and can shape her course N. by W. 5/8 W. toward Brandywine Shoal light, which brings us to the Main Ship Channel. In coming from the southward, after passing Fenwick's Island Lightship, steering N. by W. 1/2 W. till up to Cape Henlopen, we reach the same point.



FOURTEEN-FOOT BANK LIGHT.

When off Brown Shoal, the course is slightly changed (N. by W. 1\2 W.), and we bear away for Fourteen Foot Bank Light. This course is kept until we reach the Buoy of the Middle, having passed Brandywine Shoal, Fourteen Foot Bank and Cross Ledge Lights. From the Buoy of the Middle we shape our course for entering the river. This we do by ranging the Port Penn Lights, and we steam merrily along past the famous old Ship John Light, which was formerly a Lightship but is now an iron structure; Cohansey Light, on the Jersey shore; Bombay Hook Light, over in little Delaware; Bombay Hook, and on until the light on Reedy Island shows us its red rays, and we are on the Finn's Point Range. Then our course is changed to N. by E., past Reedy Island, with Port Penn in the distance, until we reach the New Castle Range, off the lower point of the Pea Patch shoals. This range bears nearly N. N. W. As ours is a deep-draught vessel, and the water is rather shoal and the bottom rocky, we take care to pass from it to the Deep Water Point Range to the eastward of their intersection and about half way between the red nun buoy, Goose Island Flats, and the black spar buoy marking the light of the Bulkhead, where the new cruiser "Columbia" struck in going down for her trial trip. We have left Fort Delaware and Delaware City in the rear.

The course is now N. E. 1/4 E., past New Castle, to a point opposite New Castle Flats, when we strike the Cherry Island Range. When off Christiana Creek we enter the Cherry Island Flat cut, and stand on until well over to the Delaware shore, when we change our course up the river until the Schooner Ledge Ranges are on and we approach with caution the point most dreaded by pilots. This is Schooner Ledge, the scene of numerous wrecks. A black buoy marks "Illinois" rock, the place where the steamer "Illinois" struck, and was damaged to the extent of $25,000.

The "Elsie Marie," a tank steamer, was more unfortunate still, it costing her owners $90,000 for repairs after striking here.

Shortly after passing this point, we come to anchor off the lower point of Tinicum Island, to await daylight and the appearance of the Health Officer, but the pilot's duties are by no means at an end, as the most tortuous part of the course is yet before him.

But the matter is now much easier, as we have daylight. We return to the course, and pick up the Tinicum Island Range Lights, over near Billingsport, and keep on until the rear Fort Mifflin Bar Light comes in sight, when the helm is put to starboard and we swing around and bring the Fort Mifflin Bar Cut Lights in range, astern. These guide us up past Fort Mifflin and League Island, until we intersect the west group of the Horseshoe (Lower) Range, situated on Fort Mifflin Reservation. We now bring this range over our stern, and hold on until the red or lower front light of the east group of the Upper Horseshoe Range is on line with the white rear light of the west group. Then a change of three points to port is made, bringing the east group range of two white lights on over the stern. The latter is the last of the Delaware River Ranges, and carries us up past Gloucester to Philadelphia.

> A well-buoyed harbor is the delight of a mariner, and the system of range lights and buoys in the Delaware River and Bay is one of the most complete of any harbor in the world. All this may seem very complicated to the landsman, but to a pilot it is plain sailing, and it is very rare indeed that a pilot loses his bearings; but if these buoys were removed, and the lights put out, not a modern ship in the world could find her way up the Delaware, unless by accident.

CROSS LEDGE LIGHT.

RULES AND REGULATIONS OF PILOTS.

MAY 26TH, 1882.

Be it Resolved, That from and after the passage of the following Regulations, the Board of Port Wardens will hold the Pilots licensed by this Board, on either cruising or take-off Pilot Boats, individually responsible for the conduct of said boats, and disregard or disobedience of these regulations shall render the Pilot or Pilots offending liable, upon investigation, to be punished as hereinafter provided.

CRUISING BOATS.

1. It shall be the duty of the Pilots on the cruising boats to keep the boats at all times on their stations, which shall be, until otherwise ordered, outside of a straight line drawn from the Buoy on the lower end of "Hens and Chickens" Shoal to the Whistling Buoy on the "Overfalls," when the weather does not render it impracticable. Each Pilot on board of the boat shall, for every violation of this Regulation, forfeit and pay the sum of Twenty Dollars.

2. They shall keep strict watch and display at all times the recognized Pilot Signals, which by day shall be a dark blue flag at the mainmast head; and at night a white light at the masthead, visible all around the horizon, and a flare-up light exhibited every fifteen minutes. During the time allotted for the boats to cruise, the Pilots on board the same shall not permit a return to the Breakwater or Cape May for Pilots (subject to the payment of the same penalty provided in the foregoing Regulation) until their number shall be reduced to one, when he may decide either to continue the cruise until put on board a vessel, or to come in for Pilots. Should he come in, it shall be his duty to secure Pilots in the most expeditious way, and return to the cruising station with as little loss of time as possible. Before leaving the station he shall notify the Pilots on the nearest cruising boat of his intention so to do, that the station may be properly guarded.

3. It shall be the duty of the Pilots to provision and supply their boats, that they may not be compelled to go into the Breakwater or Cape May, until the end of the cruise, which shall in no case be less than seven (7) days, and for any violation of this Regulation, each Pilot on board of the boat shall forfeit Twenty Dollars.

4. Nothing in these Regulations shall prevent the Pilots crossing the line

described, from the Buoy on the "Hen and Chickens" to the Whistling Buoy on the "Overfalls," to put Pilots on board vessels signalling for Pilots, or to assist vessels in distress.

TAKE-OFF BOATS.

5. It shall be the duty of the Pilots on the Pilot Boat, acting as a take-off boat, to cruise inside of a straight line drawn from the Buoy on the "Hen and Chickens" Shoal to the Whistling Buoy on the "Overfalls," to keep a strict watch, and to display the recognized Pilot signals at all times, day and night.

6. They shall render prompt assistance to all Pilots licensed by this Board, coming down the Bay, that they may be taken off their vessels with the least possible delay, and shall be prepared to furnish Pilots to such inward bound vessels as may have missed the cruising boats. Every violation of this Regulation shall be punished by a fine of Twenty-five dollars to be paid by the Pilots on board.

7. When not compelled to go inside the Breakwater, or to Cape May, to provision, or to procure or to land pilots, they shall keep the Pilot Boat under sail within the bounds described, wind and weather permitting, and the Pilots on board shall, for every violation of this Regulation, forfeit and pay the sum of twenty-five dollars.

GENERAL REGULATIONS.

8. Every Pilot Boat shall have a Log-Book, to be furnished by the Board of Wardens, in which shall be recorded daily the names of the Pilots, apprentices and crew on board, the time of setting the watch, and the names of the men composing it, the regular occurrences of the day, the weather, the position of the boat every two hours, and the names of vessels spoken or boarded. The Log-Book shall be kept by the Senior Apprentice on board, and in case of there being no apprentice attached, then by the Pilot or person in charge of the boat. The Log-Book shall at all times be open to the inspection of the Board of Port Wardens, or such person as they may designate; and when such Log-Book is completed, which shall be on the first day of January, April, July, and October, in each year, it shall be deposited in the office of the Board of Wardens.

It shall be the duty of the Log-keepers to notify the Board of Wardens weekly of the position assigned their respective boats, and it shall be the duty of the Master or the Senior Apprentice on board any Pilot boat, to see

that this regulation is strictly carried out, and for every violation of the Regulation, the term of the apprenticeship of the apprentice shall be prolonged one week.

9. Pilots shall not pass a vessel displaying a signal for or desiring the services of a Pilot, to board one at a greater distance off, unless there should be a vessel in sight making a signal of distress and requiring a Pilot. For every violation of this Regulation, the Pilot on board having first chance shall forfeit and pay the sum of twenty-five dollars.

10. Pilots on board vessels, either inward or outward bound, shall request Masters to display their National flag and International Code Signals when passing the Reporting stations at Henlopen and New Castle, and for every violation of this Regulation the Pilot shall forfeit and pay the sum of five dollars.

11. Should the vessel take the ground or meet with any accident while in charge of a Pilot, the Pilot shall report the same at the office of the Board of Wardens within twenty-four hours after leaving at the port, and for every violation of this Regulation the Pilot shall forfeit and pay the sum of twenty-five dollars.

12. In all cases of complaints made against the Pilots, it shall be the duty of any Pilot summoned before the Board of Wardens, or the Pilot Committee of said Board, to appear at the time and place appointed. Refusal or neglect to appear shall render the Pilot offending liable to suspension, unless a satisfactory reason be given to the Board or the Pilot Committee for his non-appearance.

13. All matters in relation to Apprentices, as to their number, age, and qualification, shall be regulated by the Board of Port Wardens; and no Pilot shall take an Apprentice without having first obtained the written permission of the Board.

14. Any Pilot falling in with a vessel ashore, or in distress, shall report in the quickest manner practicable, by telegraph or otherwise, to the office of the Board of Wardens; and if a Pilot observes any buoys out of place, or any light-houses or beacons not lighted and extinguished at the proper time, or any fog signal not in operation, he shall, at once, upon his return to the city, report the fact to the same office.

15. Any Pilot, licensed by this Board, bringing in a vessel from sea, shall by himself, or one of his boat's company, be entitled to pilot her to sea when she next leaves the port, unless in the mean time a complaint for misconduct or incapacity shall have been made and proved before the Master Warden or Pilot Committee of the Board of Wardens.

Any Pilot who shall take such vessel to sea without the consent of the Pilot who brought her into port (such last mentioned Pilot, or one of his boat's company, being ready and offering to take her to sea), shall pay a sum equal to the legal outward pilotage, which shall be recoverable in the name of the Master Warden for the benefit of the Pilot entitled to perform the services.

16. All fines and penalties provided for by the Regulations of the Board of Port Wardens, except where otherwise expressly specified, are payable to the Master Warden, and in case of nonpayment thereof, the Board may either suspend the Pilot in default until payment thereof, or sue for and recover the same in the name of the Master Warden, as other debts are collected at law; and all money derived from said fines or penalties shall be applied by the Board, in accordance with the provisions of law.

17. All rules and regulations or parts thereof, passed by this Board, inconsistent with these regulations, are hereby repealed.

THE CRUISE OF A PILOT BOAT.

Possibly no other class of sea-faring men run more chances or have more narrow escapes than the pilots cruising on the Pennsylvania and Delaware pilot boats which are stationed off the Delaware Capes. These boats are eight in number, four of which belong to the Pennsylvania system and are under the control of the Board of Wardens for the Port of Philadelphia, the remaining four being under the Delaware Pilot Commissioners.

By mutual agreement their cruising grounds are divided. Some cruise to the southward of Fenwick's Island and Winter Quarter light boats, while others cruise to the northward and eastward to intercept line steamers, tankers and all classes of craft bound in from Northern Europe. The boats in the Southern Chance get most of the West India business and "deep water" ships. No one locality being patrolled by a single boat, but, having as a rule one from each system, there are naturally times when the greatest excitement prevails, while the opposing craft are chasing an inbound steamship. When the new American liner, *Southwark*, first came here some eight months ago, there existed great rivalry among the boats on the Eastern Chance as to which should get her. Luck fell to the *J. Henry Edmunds*, Pennsylvania's crack boat, which is manned by as sturdy a crew of pilots as ever trod the deck of a vessel.

Many have been the hardships that have fallen to their lot, but these young seamen have kept the sea in face of gales of wind, snow storms,

tempests and hurricanes, and have never been known to run for a harbor, even under the most desperate circumstances, when their duty called them to guide, and perhaps save a vessel.

They are ever watchful over Philadelphia's commerce, and in times of emergency have never failed to render assistance to distressed vessels, although their doing so has entailed a loss as well as risk.

Thus some few years ago while they were cruising with Cape Henlopen bearing N. N. W. thirty-five miles, the *Edmunds* fell in with a Norwegian brig flying signals of distress. They immediately bore down on the craft, which proved to be the *Hardi*, bound from a Cuban port to Boston. Her captain told the pilots that two of his crew had just died of yellow fever, while two others were lingering at the point of death. To add to their misery their provisions were exhausted, and in a half-starved condition, he and a small boy were endeavoring to guide the ship to a place of safety. The pilots, at the risk of their lives, boarded the plague-stricken vessel, supplied her with plenty of provisions, and set her off on a correct course for her destination. These and other charitable and humane acts are not rare in the work of the pilots of the Delaware River and Bay.

In the winter of the same year, these pilots boarded the schooner *Lizzie Lane* off the Delaware Capes, and rescued her crew. She was dismasted and iced up beyond recognition. Having on board a cargo of asphaltum, the pilots determined to attempt to save her, and accordingly took her in tow. After twenty-three hours' work they reached the Breakwater, and from this point were assisted to port by a steam tug.

A number of pilots advanced in years stay at home during winter and ply their vocation only during the milder seasons.

Joanne Thompson talks about her own father's outlook on retirement. Many men had watched earlier pilots work too long. She said:

> *His father had worked until he was seventy-five (that's Arthur, Sr.). But my dad had a fall on the ship and dislocated his shoulder. He had only been out there 40 some years when he retired. He started by taking winters off and working in the summer as many of them did. He kept his federal license after he had given up his State license for retirement. He loved his work, as I think all that generation did. I think still do. It's their vocation and their avocation. It sounds like an easy job to the people who don't really know anything about it. We ride out there on a little boat. Hop on a boat and take it up the river. Apprenticeships were very strenuous then in those days when*

they had to row those old skiffs alongside the boat—physically demanding.

Life on board a pilot boat during the spring, summer and early fall, is a thing to be envied by even a landsman, providing he does not suffer from seasickness. Many of our prominent lawyers, seeking absolute rest, frequently take cruises on these boats.

The accommodations are good, and all creature comforts are amply and carefully attended to.

The J. H. Edmunds No. 3

THE EARLY PILOT BOATS

In the following pages, the editors will intersperse reports concerning the descriptions of important pilot boats with stories of the pilots and the fates of the ships.

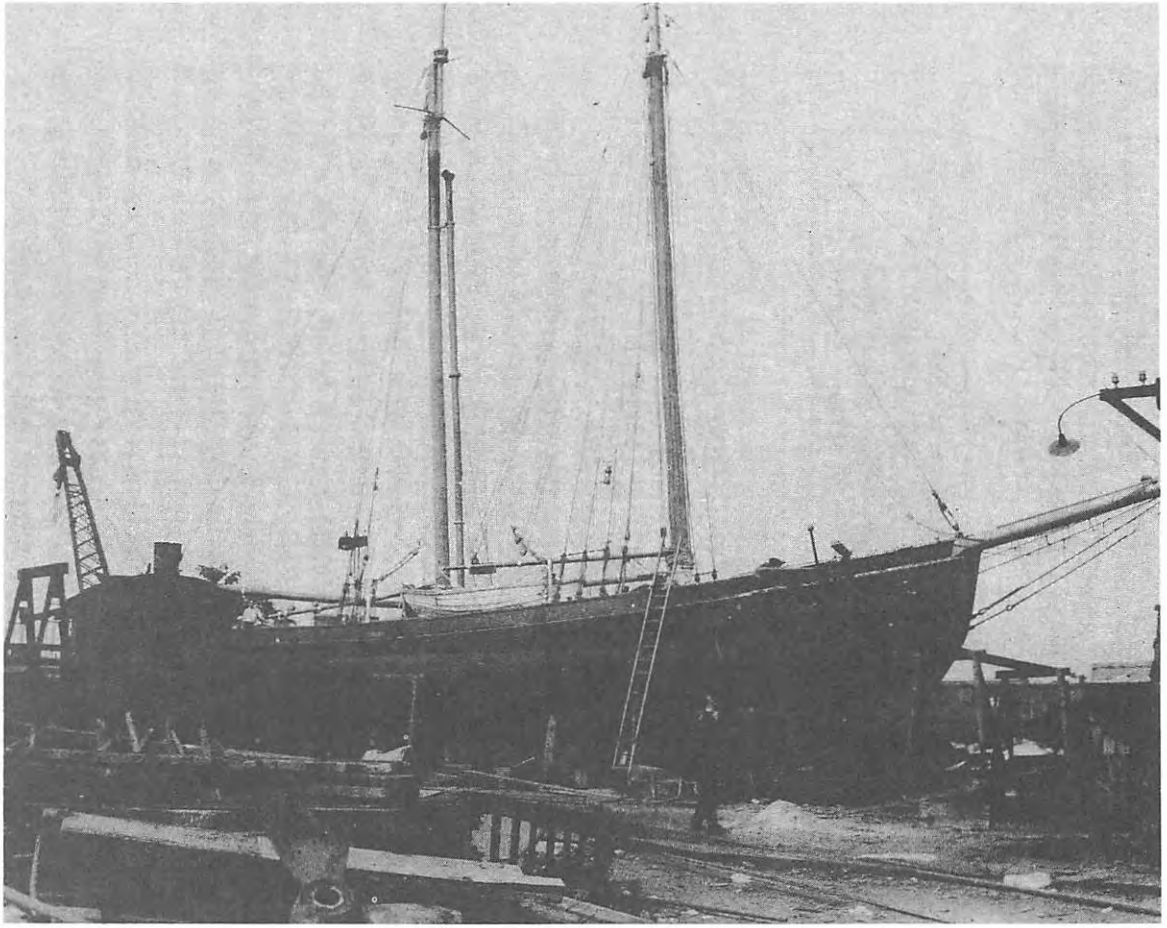
SECTION I. THE SCHOONERS.

From a newspaper report dated September 26, 1892, concerning the fate of an earlier pilot boat Edmunds, we have the following information:

"The Pennsylvania pilot boat *J. Henry Edmunds no. 3* was run down on Monday night off the Delaware Capes by the four-masted schooner *Ralph M. Haywood*, and sunk before daylight on Tuesday morning. All on board were rescued by the *Haywood* and afterward transferred to the pilot boat *Whillden* and were landed yesterday at Cape May.

The collision happened about twenty five miles off the coast. The *Edmunds* had "hove to" and the *Haywood* was sailing free with the wind when the accident happened. The schooner struck the lost vessel just aft the main chains and pinioned each vessel fast to the other. At two o'clock in the morning the vise-like grip was released and the *Edmunds* sank in over one hundred feet of water, not even the masts being visible. There were only two pilots on board—Ellis Eldridge and Alphonso Bennett, and two guests—Joseph Eldridge and Ira Knuoff, who were spending their vacation. All hands, including the crew, boarded the *Haywood* as soon as she struck.

The night was perfectly clear and the lights from both vessels could be seen for ten miles. The *Haywood* was in ballast from New York for Norfolk, and had a large hole stove in her bow and her stern carried away, but continued on her course despite the fact that she was unseaworthy and liable to go down herself. The crew and pilots lost their clothing and everything on board the vessel owned by other pilots. Pilot Bennett was badly bruised during the collision. Captain Baxter, of the Haywood, refused to give the rescued persons any food or even a cup of coffee. The pilots believe that their vessel might have been saved if help could have been given them at once. The Haywood was libeled here five years ago for



Hull of the J. Henry Edmunds

a similar collision, which costs $30,000, and was laid up three months before security was procured.

The *Edmunds* was built by C.R. Poillon, of Brooklyn in 1887, and has been a successful boat until this accident. She was owned by Joel Cook, Mayor J. Henry Edmunds, of Cape May, and Pilots M. Hughes, L. Sayres, H. Church, Jr., Alfred G. Bennett, A. Bennett, B.F. Johnson. She cost $14,000, and only M. Hughes and S.T. Bailey were fortunate enough to have their interests insured. An attachment will be issued at Norfolk against the *Haywood* and her owners compelled to pay for their master's negligence."

A new J. Henry Edmunds, was built in 1893 in Brooklyn, New York, at a cost of $14,000.
LOA 87.3 LP Breadth 21.6 feet Depth 10.2 ft.

This new pilot boat J. Henry Edmunds seems to have had a similar fate. The Philadelphia Bulletin of March 1928 headline was:

Two Ships Aground During Dense Fog

PILOT BOAT *J. HENRY EDMUNDS* IN DANGEROUS POSITION
OUTSIDE CAPE HENLOPEN, *STEAMSHIP SINKS FAST...*

A pilot boat and an ocean steamship ran aground in the dense fog, traffic was delayed on the streets, and several minor accidents occurred.

The pilot boat is the auxiliary schooner, *J. Henry Edmunds*, commanded by Captain Larns Rodseth. It is owned by the Pilots' Association for the Bay and River Delaware, of this city. The vessel left Capt May late yesterday with eight men on board, and made for the Delaware Breakwater across the bay. Instead of making Lewes, the vessel ran hard and fast aground on the main beach, just outside of the point at Cape Henlopen, one of the worst places along the Atlantic coast and known as a grave-yard for ships.

The accident was seen from the Government radio compass station at that point, and word was sent to nearby coast guard stations. Several ships are standing by but the Edmunds was said to lie in a very dangerous position. An effort will be made to float the vessel this afternoon.

The *J. Henry Edmunds* is eighty-seven feet-long, and seventy-two tons gross.

The British steamship *City of Birmingham* ran aground near Reedy Island last night while he "nosed" through the dense mist. The ship, which carries a general cargo, had been moving at slow speed, but the engines could not be reversed in time to keep her clear.

The captain reported the ship in no immediate danger, and said he expected to get her back in the channel without difficulty at high tide. The *City of Birmingham* cleared here yesterday afternoon for the East Indies.

The thick fog caused several thousand to be late to work today as railroad, motor, trolley and river traffic was delayed. Motorists drove cautiously as headlights were obscured by the soupy mist, trolleys ran with gongs clanging incessantly, and Camden-Philadelphia ferries crept across the river.

Pilot Schooner William W. Kerr No. 1

The following pilots owned the Kerr:

1. George H. Wallace	Phila.	7. John R. Price	Lewes
2. Louis C. Wallace	Phila.	8. Thomas R. Norman	Lewes
3. John H. H. Kelly	Lewes	9. Samuel West	Camden, N.J.
4. James R. Kelly	Lewes	10. John West	Lewes
5. James A. Clampitt	Phila.	11. Peter R. Schellenger	Lewes
6. Harry C. Long	Phila.		

Edward R. Messick, Senior Apprentice and boat keeper, Lewes
John E. Maull and Harry W. Chambers, Apprentices, Lewes
John Paynter (colored), cook, Lewes

From a newspaper account June 21, 1896, concerning L. D. Schellenger, we learn something in this next article about both the man and his ship, The Kerr.

OLDEST LIVING PILOT IN PHILADELPHIA

L. D. SCHELLENGER'S LIFE HAS BEEN CROWDED WITH STIRRING SCENES

HIS SERVICES DURING THE WAR

He Superintended the Building of the City Iceboats. His Three Brothers Were Lost at Sea. During His Half Century In the Service He Met With But One Accident. (Clipping is dated 1896)

The oldest pilot in Philadelphia as well as one of the oldest in the world is pilot Lester D. Schellenger, of 120 Queen Street. For more than a half a century Pilot Schellenger has been actively engaged in guiding both sail and steam craft of all kinds through the tortuous channel of the Delaware river and bay between Philadelphia and the Delaware capes. Nearly four score years have whitened the locks of Pilot Schellenger: yet his clear blue eyes are as quick and far-seeing as any of the younger pilots and up to four years ago he stood as straight as an arrow, and was as agile as a college athlete. Three years ago he was compelled to give up his loved vocation on account of a severe attack of rheumatism, brought on by exposure, the result of an accident in which he narrowly escaped with his life.

He undertook during a heavy storm to board at sea the English steamer *Camden* about four miles south of the Delaware capes. The wind was blowing a lively gale, and the rope that held the ladder to the side of the steamer slipped, precipitating him into the sea. It was with great difficulty that he was rescued from his perilous position in the water, and he never seemed to fully recover from the shock.

Pilot Schellenger was born in a house on Catharine Street, above Front, September 22, 1818, and for the past fifty odd years he has occupied the old mansion at 120 Queen Street. His whole life has been crowded with stirring scenes, and not a few thrilling adventures. At the time of his birth General Jackson was at the head of an armed expedition sent out by the government to wage war against the Seminole Indians, who had ravaged the white settlements in Georgia. While a young man he was a factor in waging the war with Mexico and later witnessed the great struggle between the North and the South.

When at the age of 21 he had finished his six years' apprenticeship and received his license as a pilot steamboats were as scarce as the horseless carriage is now. The telegraph and submarine cable were unknown, and electric lights and telephones had not been thought of. Although the channel from Philadelphia to the Delaware capes was just as shifty and treacherous then as now—the government had not dredged away so many bars or placed so many lights and buoys to make the work of the pilot safe as well as easy-yet Pilot Schellenger has a most enviable record of never having run a vessel aground. He not only knows the lights, buoys, courses and distances by night as well as by day, but his knowledge of the exact depth of water, at both high and low tide, over almost every foot of the surface of the river and bay has enabled him to take large vessels to sea in the densest of fogs, when the direction of the channel could only be obtained by constant sounding of the lead line.

Pilot Schellenger comes of a race of navigators, his father and grandfather having been sea captains. His father was for many years, and until his death in August, 1854, a captain in the steady employ of the Philadelphia and Havre de Grace Steam Tow Boat Company. It has fallen to the lot of Pilot Schellenger to take to sea some of the largest and finest vessels ever built to Philadelphia. He was in charge of both the steamships *Pennsylvania* and the *Ohio* on their trial trips, and when a few years ago the Cramps built a man-of-war for the Russian Government, Schellenger was the pilot selected to take the vessel to sea. The cruiser steamed out of the bay flying the stars and stripes, and when five leagues east of the Delaware capes, on the high seas the American flag was hauled down and the great yellow flag of Russia, with its two crowned eagles, was run up instead, and the vessel was formally handed over to the Russian commander.

With the exception of eight years, during which Pilot Schellenger was captain of the steamers *Robert Morris* and the *Jefferson* engaged in towing canal boats from Philadelphia to Havre de Grace and up the Susquehanna in the lumber and iron trade, he has always been actively engaged as a Pennsylvania pilot in conducting vessels to and from Philadelphia and the Delaware capes. For twenty years during the earlier part of his career as a pilot, and when the commerce of the port was not so great as now, he was captain during the winter months of the city ice boats, and in summer resumed his vocation as pilot on the river and bay.

The first ice-boat owned by the city was built of wood. In 1833, and twenty years later, Pilot Schellenger became her captain. He superintended

the building at Cramps' yard of the present city Ice-boats No. I and No. 2. which were the first iron ice-boats the city owned, and afterwards for many years was captain successively of city Ice-boats Nos. 1, 2 and 3. Some of the trustees of city Ice-boat No. 1 were John Welsh, Ex-Minister to England, Edward C. Knight, William S. Graub, and John Deverill, the latter being president of the board.

During the war of the Rebellion, Pilot Schellenger was selected to pilot one of the four boats taken by the government for the use of General Burnside at Fortress Monroe, and later was captain of the steamer *Robert Morris*, when she towed a fleet of dye schooners from Annapolis to Fortress Monroe with provisions, water and hospital accommodations to aid the Federal army after tile steam railroads had been torn up.

With the exception noted, Pilot Schellenger has never met with an accident and has never been sick in bed but twice in his life. When 28 years of age he contracted smallpox on board a Boston packet bark, and when 45 years old he brought another Boston packet vessel into quarantine when all on board except four had died of yellow fever. He contracted the deadly disease, but did not have a severe case.

His three brothers were all seafaring men and all lost their lives while plying their vocation. His brother John was drowned fifty-three years ago in the pilot boat *William Price* at the time she was blown on the beach near Cape May. His brother Henry, while captain of a tug-boat at New Orleans, died of fever thirty years ago. His brother Charles, with five others, was drowned in the pilot boat *Enoch Turley*, which was lost seven years [ago] in a terrific gale about 61 miles south of the Delaware capes. Pilot Schellenger, though retired from active service, is still a member of the Pilots' Association, and a part owner of the Pennsylvania pilot boat *W. W. Kerr*.

Pilot Schooner E. C. Knight **(Cape May)**

Her Pilots were:

1. William Bennett
2. William J. Bennett
3. John Bennett
4. James C. Bennett
5. Alphonzo Bennett
6. Samuel T. Bailey
7. Horatio H. Church
8. E.L. David
9. Thomas Eldredge
10. Enoch E. Eldredge
11. William C. Eldredge
12. William T. Eldredge
13. Ellis E. Eldredge
14. Frank S. Eldredge
15. J. L. Eldredge
16. Charles Eldredge
17. William S. Fuller
18. Douglas Gregory
19. Israel Hughes
20. Humphrey Hughes
21. I. Putnam Hughes
22. J. Warren Hughes
23. Albert H. Hughes
24. Mermican Hughes
25. Robert Hughes
26. Harry B. Hand
27. Philip Hand
28. B. T. Johnson
29. N. B. Smith
30. Samuel M. Schellenger
31. Enos Schellenger
32. John Stevens
33. Daniel E. Stevens
34. Louis Sayre
35. Lambert Ware
36. John Webb

Follows is a A Short History of the Sailpilot Boat, E.C. Knight which focuses on the Knight but which compares and contrasts her with the other ships in use, especially the Edmunds.

Just before the turn of the last century there were eight sailpilot boats cruising out of the Delaware Capes. All these vessels were two masted schooners about the same dimensions. However, some were much better sailers than the others.

Each vessel was owned outright by groups of ten to fifteen pilots and competition was very keen among them. The pilot groups owning the newer boats and having the most nerve, cruised far to sea, as far as two hundred miles or more to put their pilots on the larger ships, there being much more money in piloting a large ship to Philadelphia than a small one. The pilots owning older boats and having less nerve cruised closer to the Delaware Capes and were satisfied with the smaller steam ships and sailing vessels that the hard working offshore boats would not bother with.

The eight sailpilot boats were named *Tunnell, Byrd, Cope, Howard, Turley, Knight, Edmunds and Whillden.*

The *E.C. Knight, John Whillden* and *J. Henry Edmunds* were all owned by Cape May pilots.

The *E.C. Knight* was the fastest of the group—close hauled or sailing into the wind, that is with the wind foreward of the beam. The *J. Henry Edmunds* was built after the *Knight* and proved to be much faster than the others running free or before the wind—that is with the wind abaft the beam.

The *Edmunds* being a little faster than the *Knight* running before the wind upset and annoyed her owners very much. While in the shipyard for her annual overhaul they had some of the rake taken out of her masts feeling it would cause her to sail better before the wind and not hamper her good sailing qualities into the wind. This change made her sail a little slower both before and into the wind and was a great mistake and was done against the advice of the designer.

The pilots who owned the *Knight* decided they had better let well enough alone and never changed her masts back to their original position which made her run a little slower than when she was built. She was still a beautiful vessel and even after the change in her masts was above average in her sailing qualities.

In 1896 the "Pilots Association for the Bay and River Delaware" was formed and the first steam pilot boat was built. There being no need for pilot boat schooners they were sold and, I imagine, resold many times during their useful life and became scattered throughout the world, some near and some far.

The pilot boat *J. Henry Edmunds* which was a very able and comfortable vessel, also the newest of the sailpilot boats, was kept by the Pilots Association for a relief pilot boat and served well in that capacity. She was lost on Cape Henlopen, Delaware, in May 1927, in a dense fog.

The pilot boat *Knight* was named for Mr. E.C. Knight, owner of a large sugar refinery on Delaware Avenue located on the water front of Philadelphia. He lent the group of young pilots, who decided to band together and build a pilot schooner of their own, the funds for this venture. The vessel was named for Mr. Knight, because of his kindness and generosity.

His daughter, Miss Annie Knight, lived in Cape May, New Jersey, and inherited from her father the famed Congress Hall Hotel. It was a beautiful Victorian building and was known as the summer White House, because

because many presidents, congressmen, cabinet members, senators, and their families vacationed there before the turn of the century. The hotel still stands and is in excellent condition. Currently it is owned by the Reverend Carl Macintire and is a part of Shelton College.

The pilot boat *Knight* was sold by the Association to west coast interests—The Alaskan Packing Company. She went to the west coast by way of Cape Horn, but I do not know for what purpose she was used. It would appear that she was not owned by the Packing Company when lost because of the location of her sinking. I have tried but to no avail to learn the name of the designers of the *Knight*. Pilots who owned a share in her told me she was built at Pollion's Shipyard in Brooklyn, New York.

The pilots who built and owned a share in the *Knight* were:

Horatio Church, Jr.	Daniel Stevens
Frank Eldredge	James Bennett
Jeremiah Church	Robert C. Hughes
Warren Hughes	Napoleon Smith
Harry Hand	Thomas Eldredge
William Jackson Bennett	Israel Hughes
Edwin Davis	Enoch Eldredge
Charles Eldredge	

These were all Cape May pilots who had served their apprenticeship in the *John Whilldin* because a few of *Whilldin's* pilots were quite old and objected to deep sea cruising, and as mentioned before that was where the money was. The above mentioned men pulled out of the *Whilldin* and built the *Knight* and went deep sea in their schooner that became the famous *E.C. Knight*.

Pilot Schooner John G. Whilldin No. 4

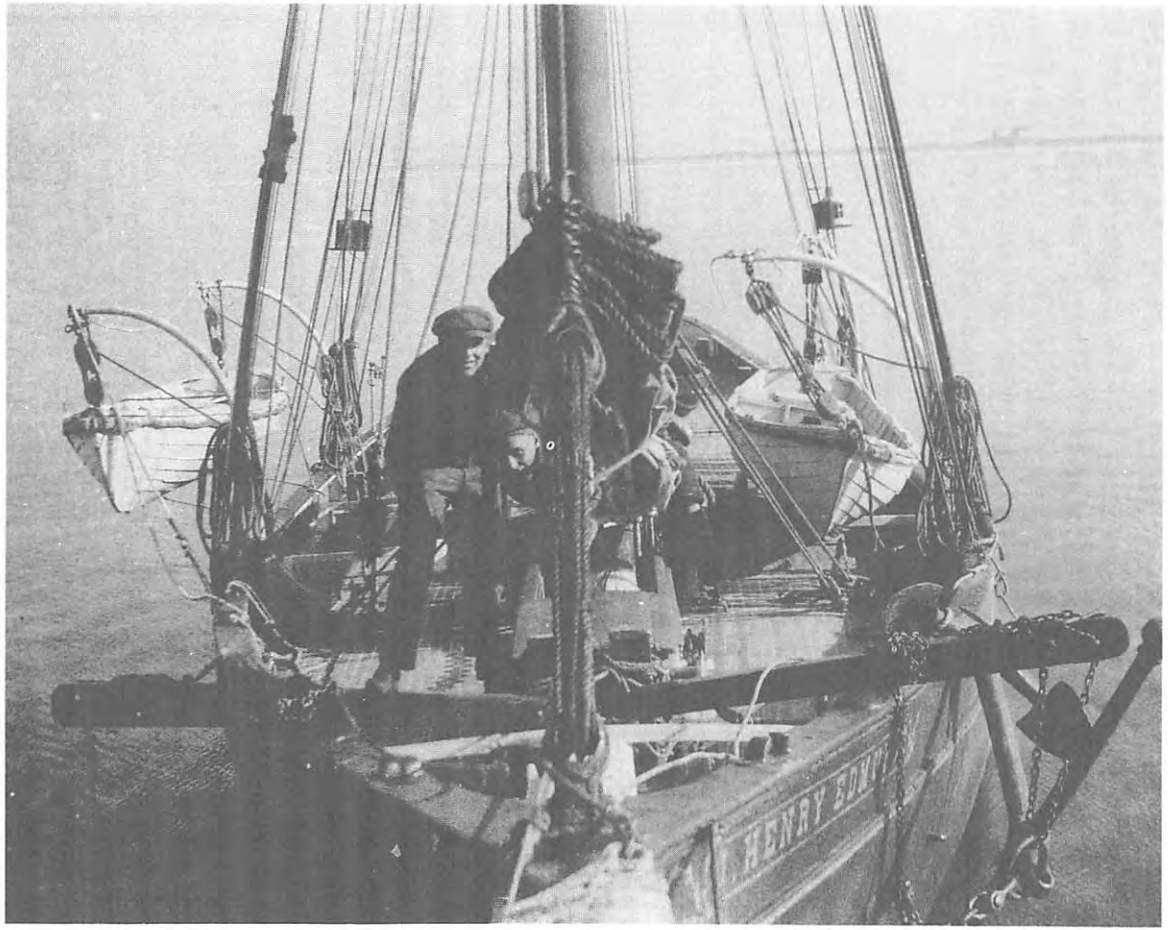
78.3 feet x 18.8 ft. x 6.9 ft.

51.38 Gross tons

Built in Philadelphia, Pennsylvania, in 1839. Pilots were:

1. Douglass Gregory Cape May
2. William J. Bennett Cape May
3. Edward L. Davis Cape May
4. John T. Bennett Cape May
5. Harry G. Bennett Cape May
6. Howard S. Hand Cape May
7. Louis W. Fowler Phila.

Harry B. Davis, Senior apprentice and boatkeeper



Clowning on the Edmunds, Photo by K. L. Miller

A note by Harry W. Chambers asserts that each of these schooners carried a crew of five or six first class pilots and one twelve foot pilot. The crew consisted of one boatkeeper, four men, including the apprentices, one cook and one cabin boy. They would cruise at sea until the pilots were disposed or if weather conditions became unfavorable or water and food was low. Then they would come in, get a new set of pilots, fresh food and water and return to sea again.

An article from a Philadelphia paper dated November 27, 1896 describes the fate of the Whilldin.

PILOTS GREIVE DEEPLY.

The Whilldin, the Oldest Boat In the Service, Retired.

The old Pennsylvania pilot boat *John G. Whilldin*, the oldest craft of her kind on this Coast, just as the sun faded behind the western horizon yesterday, drew into the dock at Cooper's point, bringing to a close her official career as a pilot boat, after a continuous service extending over a period of fifty-seven years.

No craft is as well known along the coast by seafaring men as the old "Jack," as she is called, neither has any sailing craft ever completed such a long and successful career as the *Whilldin*. She has weathered storms that have sent thousands of vessels with tens of thousands of souls to the bottom, and, during the eventful period of her life as a pilot boat, she has never met with serious disaster. In this old craft, which is endeared to most of the pilots, the oldest of the active men have served their apprenticeships. She was a pilot boat long before steam was used to any great extent in general commerce, and through her prosperity she has enriched hundreds of the pilots who long ago have joined the silent army.

The old *Whilldin* will end her days moored to the wharf at Cooper's Point, as she soon will be superseded by steamboat. Many of the old pilots shed tears on Wednesday night as the old boat left her station off the Delaware Capes never to return. Had it not been for a slight accident to the *Whilldin* by a collision Saturday last with the *Bayard* she would have remained at the Delaware Capes until December, when the amalgamation

of the Delaware and Pennsylvania system of pilots takes place, but it was not thought advised to put her in repair again for such a short period. Under the amalgamation rules she has been purchased by the new society for $2000, and it was its intention after that date to tie her up, together with the *E. C. Knight, Thomas Howard, Henry Cope and Thomas P. Bayard,* continuing in the service until the steamboat can be built, the *W. W. Kerr, Ebe W. Tunnell and J. Henry Edmunds.*

The old *Whilldin* was built in Philadelphia in 1839, and is forty-nine tons register, 78 feet long, 18 feet beam and 6 and 3/4 feet deep. Despite her age, her bottom timbers are said to be perfectly sound. The other three boats were built at comparatively recent dates. Pilot Israel Hughes, who is nearly 80 years old, has spent the entire fifty-seven years on board the *Whilldin,* and with Douglass Gregory, the next oldest pilot on board that boat, will retire after December 8. The *Whilldin's* crew say it is like parting with one's best friends to give the old boat up.

The following ship has no stories to go with her but it is important to list her pilot owners.

Delaware Pilot Schooner Henry C. Cope No. 1

Pilots were:

1. Harry F. Virden	Phila.	7. Thomas B. Schellenger,	Lewes
2. Peter J. Chambers	Lewes	8. John W. Truxton	Lewes
3. Louis P. Evans	Lewes	9. John B. Merritt	Phila.
4. Thomas D. Fuller	Lewes	10. Harry F. Schellenger	
5. William E. Poynter	Lewes	Atlantic City	
6. James Rowland, Jr.		11. George W. Poynter	Lewes

George S. Lubker, senior apprentice and boat keeper
Harry F. Virden, Apprentice
Henry Thompson (colored) cook, Lewes

Delaware Pilot Schooner Thomas F. Bayard No. 2

Dimensions overall, 78 feet, Beam 23 feet, and Draft 11 and 1/2 feet

Pilots were:

1. John Penrose Virden	Lewes	8. James Rowland, Jr.	Lewes
2. Walter L. Virden	Lewes	9. John S. Rowland	Phila.
3. Fred L. Lubker	Lewes	10. William A. Schellenger	Lewes
4. Harry V. Lyons	Lewes		
5. William F. Marshall	Lewes	11. Delaware Conwell	Lewes
6. William S. Edwards,Sr.	Lewes	12. J. Frank MacIntire	Lewes
7. Aaron Marshall	Dover	13. Frank Maull	Lewes

Arthur W. Conwell, Senior apprentice and boatkeeper, Lewes
Thomas J. Virden and William S. Edwards, Jr., apprentices, Lewes
Bill Shorter (colored), cook, Lewes,
Ned Lockwood (colored), cabin boy, Lewes

There is one news article about the Pilot Boat Thomas F. Bayard from the Nautical Gazette, March 20, 1880, N.Y. Public Library. There are more technical details concerning her structure contained within this tale than previously.

PILOT BOAT *THOMAS F. BAYARD*

In the past history of the naval architecture of this country, that species of the genus American schooner called the Pilot Boat holds a conspicuous place. It was an improvement on the design and model of this class of fore and aft rigged vessel which first brought the mechanical genius Geo Steers prominently before the maritime public, and, probably, many of our readers can remember the advent of his "maiden attempt"—the pilot boat *Mary Taylor*. Her long, sharp bow, perpendicular stem, etc., with the foremast set well back from the knights-heads, was an innovation upon old time precedents that was received with many misgivings, and ominous head shakings by the experts of those days, and in contrast to the bluff-bowed, dumpling model which was supposed to embody all the virtues with no defects of a sea-going vessel, she was indeed a paradox. Imitators sprung up in plenty, however, when her service showed that she was able to hold her own with the best of her class, and the type of model then first introduced—or parodies thereon—have since then been constructed

plentifully in this country. Of the many builders of this class of vessel in this vicinity, none have achieved the success and reputation of the Poillon Bros. Such fine examples as the *T. S. Negus, Columbia*, and the *A. M. Lawrence*, attest fully their skill in this branch of naval architecture, and to their latest construction, the subject of this article, we would respectfully call the attention of our readers. The *Thomas F. Bayard* was launched from Messrs. Poillon's Yard at Brooklyn, on the 13th inst. She is 94 feet long over all, 85 feet long on the water line, 21 feet extreme breadth, 8 feet 9 in. depth of hold, and will draw, with about 40 tons of ballast, 10 feet of water. She will "tonnage' about 170, carpenters' measurement, and is built of the best material, the hull being finished "smooth, fair, and workmanlike" in its carpentry. She was built from the moulds of the pilot boat *Columbia*, with 4 feet 4 in. added in the midship-length and, consequently, her model presents rather a long midship body with a slightly hollow bow and an easy "run", having 3 feet 6 in., or thereabouts, difference in the draft of water. The keel is "rocker," curved about a foot; stern post stands square to the waterline, and the stem, perpendicular above water, circles around the forefoot with a long radius, the forward edge of the gripe finishing neatly into a composition metal casting. Her sheer is strong in its curvature, and well up in the ends, finishing out forward, against the bowsprit, and aft, above a snug "V-Tuck" stern. It is defined by a gilt hollow wrought at the height of the quarter-deck plankshеer, which, together with some gilded vine work cut in the planking around the hawse pipes, and her carved name boards on the bow-bulwarks, and gilt letters—hailing place—on the face of the stern, completes her ornamental work. She has the usual deck finish—break deck of pilot boats, with a small cockpit aft, and the windlass bits, and all coamings are of mahogany, which, with the locus timber-heads, brass-finished, give her a dandy appearance. Below decks she has the usual accommodations, well arranged, with space to spare. All her standing rigging, stays, etc., are of wire; the jib-stay as well as the bob-stay "setting up" in at the stem.

Her masts are - mainmast, 75 feet; above deck 65 feet; foremast, 74 feet; above deck 63 feet; heads, 6 feet; topmasts, 29 and 27 feet respectively. They stand nearly plumb.

The bowsprit steves with the sheer, and is, outboard - 17 feet 6 in. to jib-stay; 5 feet 6 in. to jump-stay; gaff 22 feet 6 in.

Her sails were made by Mr. Benj. Moore, of 27 South Street, who is "well up" in the art of this particular branch of sailmaking.

The mainsail will hoist 49 feet 6 in., foresail 48 feet—her complete suit of sails spoils about 2,000 yards of Mt. Vernon Duck. The three lower sails will be made of No. 1, hard duck, 22 in. wide. Jib and Fore Staysail are fitted with a single bonnet, foresail with three rows of reef points, mainsail with only two rows, which will show her designating number - 5 - above the close reef. She was built for Capt. Henry Virden & Co. of Philadelphia, and will cost about $15,000 when complete, and if the skillful hand of Mr. Townsend, her designer, has not lost his cunning, the *Thomas F. Bayard*, his latest achievement, will prove speedy, staunch and buoyant in her arduous service she has to perform.

Delaware Pilot Schooner Ebe W. Tunnell No. 4

Pilots were:

1. Robert C. Chambers	Lewes	7. John M. Barnes	Lewes
2. Fred Burton	Lewes	8. Louis Bertrand	Lewes
3. Arthur W. Marshall, Sr.	Lewes	9. John W. Joseph	Lewes
4. George W. Poynter	Lewes	10. Fred Conwell	Lewes
5. William E. Poynter	Lewes	11. James K. Rowland	Lewes
6. Thomas R. Marshall	Lewes	12. Wrixon W. Norman	Phila.

Carl Magnusen, boat keeper
Louis A. Chambers and Frank Poynter, apprentices, Lewes
Louis Lauritsen, cook, Lewes
Harry (Buddie) Gilpin, cabin boy, Lewes

The following story of a day in the life of the Tunnell *is breezy and comfortable and will stimulate Pilot memories of good times at work.*

TYPICAL DAY ON PILOT SCHOONER *TUNNELL*

"Sail off starboard bow."

The helmsman of the *Tunnell* who happened to be boatkeeper, also called captain, was standing his two hour watch at six o'clock in the morning when a large square rigged ship came in sight. Captain Magnusen ordered the pilot flag, a square blue flag on a short staff, hoisted to the top of the mainmast. It was flown only when needed as the wind would soon whip it to pieces.

The weather was calm. A light breeze was blowing from the west which allowed the pilot schooner to sail along easily and comfortably. The main sail and foresail were still reefed from the customary reefing of the night before, as it is much easier to take reef while the weather is calm and in daylight.

Breakfast was cooking in the galley. The smell of coffee was enough to sharpen appetites and help awaken the six pilots on board, as well as the other three members of the crew.

The crew consisted of the captain or boatkeeper, cook, mess boy and two sailors. Breakfast was at seven o'clock and by the time it was consumed the approaching square rigged ship was seen to have a Union Jack or flag of country hoisted at her mainmast, indicating a pilot was wanted.

Captain Magnusen by this time had headed into the wind, the square rigged ship had heaved to nearby. Two pilots and the two seamen picked up the small dory and dropped it overboard. The railing was low and free-board only a foot or so, so that the dory was very easily launched. It had already been made fast by the painter to the railing and the pilot who was to go to the square rigged ship had already jumped into the dory and was helping steady it while the two seamen were making ready to row.

In a few minutes the pilot boarded the square rigged ship and it was underway very quickly, sailing in the direction of Cape Henlopen. The pilot dory was rowed back to the *Tunnell* and hoisted on deck by a block and fall attached to the mainmast truck. The captain, or boatkeeper, then continued sailing the *Tunnell* in a southeasterly direction toward Five Fathom Lightship in search of another ship to provide with a pilot.

By this time the two hour watch was over and the helm was taken by one of the remaining five pilots left on board. Business had not been too brisk in the last few days. one of the young apprentices climbed the mainmast hand over hand, up the hoops of the mainmast as far as the truck where the topmast joined the mainmast, and sat at this location as a lookout since he would be able to see several miles farther than on deck.

The seamen were busy at their chores and after a substantial breakfast of eggs, bacon and hot biscuits with plenty of butter and jam, they were content to smoke their pipes and proceed with the chores of keeping things shipshape. Ropes were to be spliced, a small amount of painting was necessary and the whole ship was gone over to keep her in number one condition.

Since the ship sailed twenty four hours a day, materials wore out quickly and had to be replaced. In the light airs topsails were put on as also were the jib, flying jib and staysail. In heavy winds just the staysail, foresail and mainsail, frequently with one or two reefs, were used. No ratlines were available to go aloft and it was necessary to climb on the hoops to go up the mast.

At night the navigation lights were kept on as usual—red on the port side and green on the starboard. These were fastened to the mainmast stays about six feet above deck. When a prospect was sighted at night the pilot schooner would hoist a white light in a cage. The schooner would then know that the pilot boat was near and if a pilot was wanted the ship would usually send up a blue flare as a signal.

Competition was keen and each pilot schooner tried to get as much business as possible without making its presence known to the other pilot boats since the pilot schooner first putting a pilot on board would usually get the business. Pilot schooners *Cope* and *Edmunds* cruised nearby. Many amusing episodes are related by the older pilots describing situations where two and three pilots landed on deck almost simultaneously.

Lunch, or dinner as it was called, was the main meal of the day and served at twelve o'clock. It consisted of soup for first course, with meats and vegetables. Since no refrigeration was available only enough perishables were taken to last a few days. Many schooners brought ice from Maine and Nova Scotia to Philadelphia and would frequently drop a large cake overboard for the pilots to salvage what was left by the time they got it out of the water.

No chickens or other animals were kept in crates on board as was frequently done in those days. The older pilots remember seeing chickens, pigs and other live stock at times loose on the decks of ships to be eaten as necessary on long voyages.

Captain Lewis Chambers remembers the wonderful homemade bread and cinnamon buns that "would melt in your mouth" made by Henry Thompson. He also remembers eating a lot of "salt horse."

A large metal water tank was near the galley so that plenty of fresh water was always available. Casks were filled from Frank Maull's pump next to the Queen Anne pier and taken out to the *Tunnell* and hoisted aboard to fill the tank. Small boys were paid five cents an hour for pumping the water to fill the casks.

Pilots and boatkeeper slept in main cabin. Crew slept in "fo'c'sle."
Coal stoves heated galley and "fo'c'sle" in winter.

Delaware Pilot Schooner Thomas Howard
(Cape Henlopen)
Built in 1870 by Cramps of Philadelphia. Sold May 8, 1897 for $1,400 to Fritz and Martin to be a fishing boat.
Pilots were:

1. George L. Chambers
2. George H. Conwell
3. James A. Clampitt
4. William F. Edwards
5. Robert C. Edwards
6. John Kelley
7. John S. Kelley
8. James R. Kelley
9. Harry C. Long
10. Clinton Long
11. Thomas C. Marshall
12. Thomas R. Marshall
13. Jacob A. Marshall
14. William M. Marshall
15. James W. Marshall
16. David J. Marshall
17. George H. Maull
18. Edward Maull
19. Frank Maull
20. William Maull
21. Harry C. Maull
22. James J. Mason
23. W. W. Norman
24. James A. Orton
25. George W. Poynter
26. John R. Price
27. Harry M. Parker
28. James Rutherford
29. Lester D. Schellenger
30. Jeremiah Schellenger
31. Thomas V. Schellenger
32. Jacob Teal
33. John W. West
34. David R. West
35. Samuel West
36. George H. Wallace

No tales have surfaced concerning the Thomas Howard.

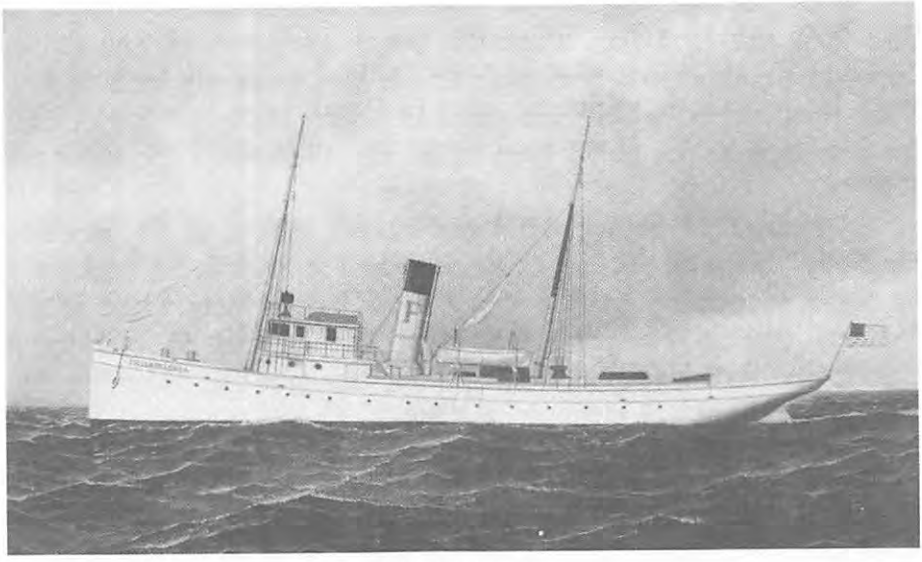
SECTION II. THE NEWER BOATS

Following are some notes about the three boats named The Philadelphia

Steam Pilot Boat *Philadelphia* #1 was built in 1897 by Neafie and Levy of Philadelphia, Pennsylvania.

LOA 134 beam 25 draws 12 feet 750 HP
Cost $65,000. Sold to the U.S. Government for the Spanish American War for $100,000 to become the gunboat *Peoria.* (Gbt.: Displacement, 487; L. 131'; Breadth 25'; Draft 10'6"; Speed 9K.; a.4 3-pdr. Hotchkiss rapid fire guns, 1 6mm. Mg)

When the Pilot Association sold the ship, it was replaced by the *Ebe W. Tunnell* and the *J. Henry Edmunds.* These were supplemented by the Red Star Line Tug *Juno* which was chartered, until the new pilot boat was finished.



Philadelphia #1

This *Peoria*, a converted steel gunboat, was built as the pilot boat *Philadelphia* by Neafie and Levy, Philadelphia, Penn; purchased by the Navy 23 May 1898 from the Philadelphia Pilots' Asso.; renamed *Peoria*, and commissioned 15 May 1898, Lt. T. W. Ryan in command.

Peoria sailed from Key West, Fla. 25 June 1898, escorting two transports carrying a joint Cuban-U.S. landing force. A landing was attempted on the south coast of Cuba 29 June, but Spanish army forces were so overwhelmingly strong in this area that another landing point had to be selected. Steaming east, the transports debarked their troops the following day west of Tunas, at the mouth of the Tayabacao River. As the landing boats reached the beach, a "very destructive" fire was opened on them by Spanish infantry concealed in camouflaged earthworks. As soon as the enemy's positions could be located, *Peoria* opened a "very rapid and accurate fire," which soon silenced them. For the rest of the day, *Peoria*'s guns prevented the destruction of the outnumbered landing force, her shells having a telling effect on the well-entrenched defenders. The landing force was later safely withdrawn under cover of darkness.

Joining gunboat *Helena* 2 July 1898, *Peoria* engaged Spanish shore batteries newly entrenched around Tunas. Suffering minor damage, the gunboats silenced the batteries, dismounted some guns, and sank several enemy-flag schooners.

On the following day the expedition was successfully landed at Palo Alto, east of Tunas, where the troops made contact with Cuban insurgent forces. *Peoria* then escorted the two transports back to Key West. Hostilities in the Caribbean ended 13 August 1898; *Peoria* continued her peacetime service in the West Indies into 1899, when she sailed for Boston.

From 1899 through 1904 *Peoria*, still classed as an "auxiliary Gunboat," served on the East Coast. Originally at Boston, she later acted as tender to gunnery training ship *Puritan* before being based at the Torpedo Station, Newport, R.I. Here she assisted in conducting experiments with improved torpedoes for the growing submarine and destroyer forces as well as for capital ships.

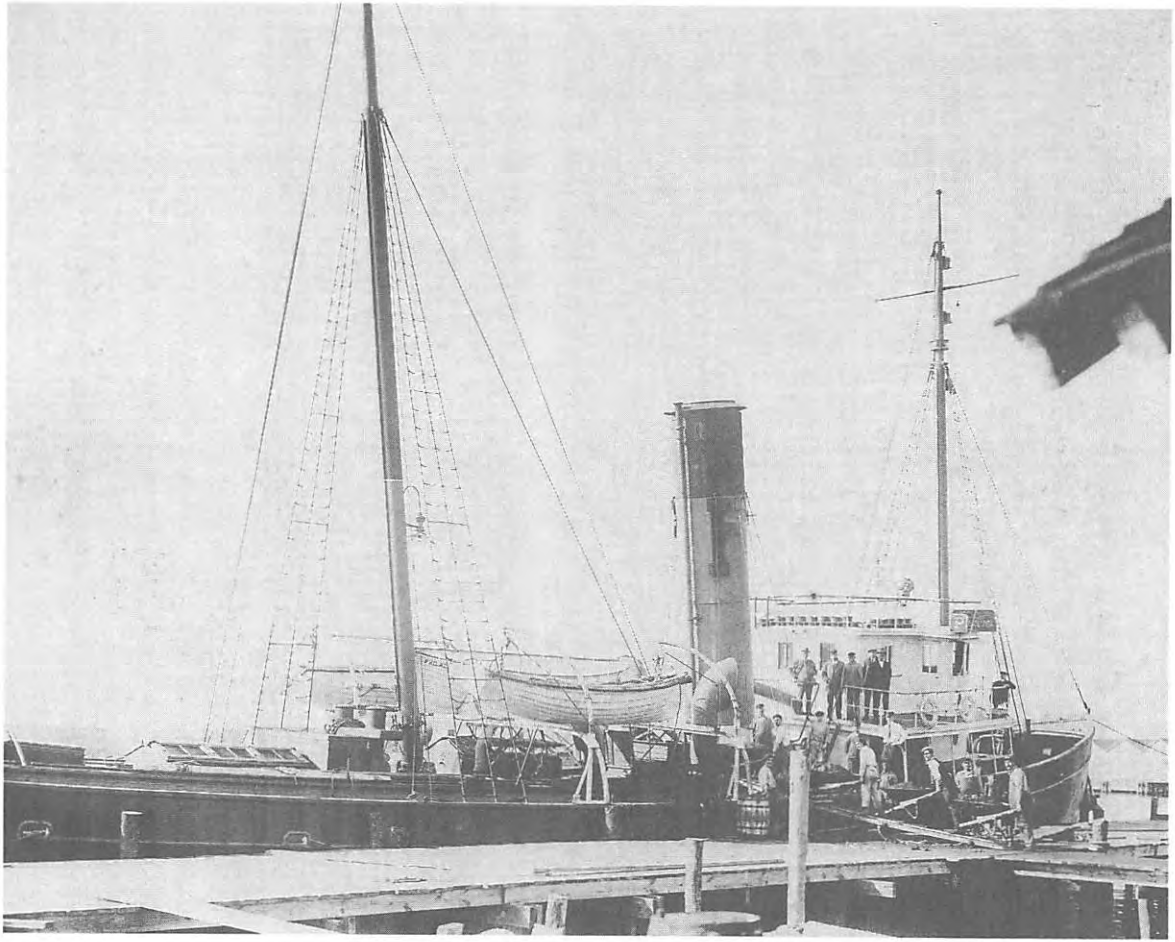
On 24 January 1905, *Peoria* arrived at San Juan, Puerto Rico. For the next six years she operated from San Juan, being redesignated in 1908 as a "steel steam tug." In December 1911 she sailed to Charleston, S. C., where she was disarmed for local service. The next ten years were devoted

to towing and harbor service at Charleston and at Key West, with temporary duty at Guantanamo Bay and Santo Domingo.

The following two anecdotes from pilot lore assert that some pilots enjoyed playing practical jokes on colleagues.

"The pilots also have time for a certain amount of fun... Several years ago two pilots came aboard the pilot boat *Philadelphia* both wearing shirts with identical pin stripes. They took nearby bunks since they had a few hours to wait, undressed and turned in. Some of their friends aboard decided to play a practical joke and since one pilot was a very small thin person and the other large and stout, one of their friends switched shirts. The stout man awakened first and started to dress. He found the shirt he thought was his, entirely too small. He became quite alarmed and insisted that he was swollen about the neck and must be put ashore so he could get medical treatment at once. The captain of the pilot boat, not knowing about the joke, agreed and said that since several hours would elapse before daylight, he should turn in and get some sleep and he would send him ashore the first thing in the morning. He did so and his colleagues switched the shirt back again. When he awakened he was quite relieved to find that his shirt fitted very well. The pilot felt better immediately and took the next turn up the bay."

"Another pilot, Captain Preston Joseph, is well known for his loud, booming voice. He was taking a ship to a Marcus Hook refinery and suddenly was surrounded by a very dense fog. He knew there was a ship immediately ahead and another immediately behind. He decided to anchor while proceeding at very slow speed. He shouted the order, "lower the starboard anchor." Immediately the anchors from all three ships dropped at one time since the mate on each ship was certain his pilot had ordered the anchor lowered..."



Loading Coal on the Philadelphia #2

The Steam Pilot Boat Philadelphia #2 was built in 1898 by Neafie and Levy of Philadelphia. Cost was around $70,000.

LOA 148 ft. Beam 26 Depth 15 feet

A newspaper report of the day, dated November 19, 1898, and titled "The New Steam Pilot Boat" recounts the event:

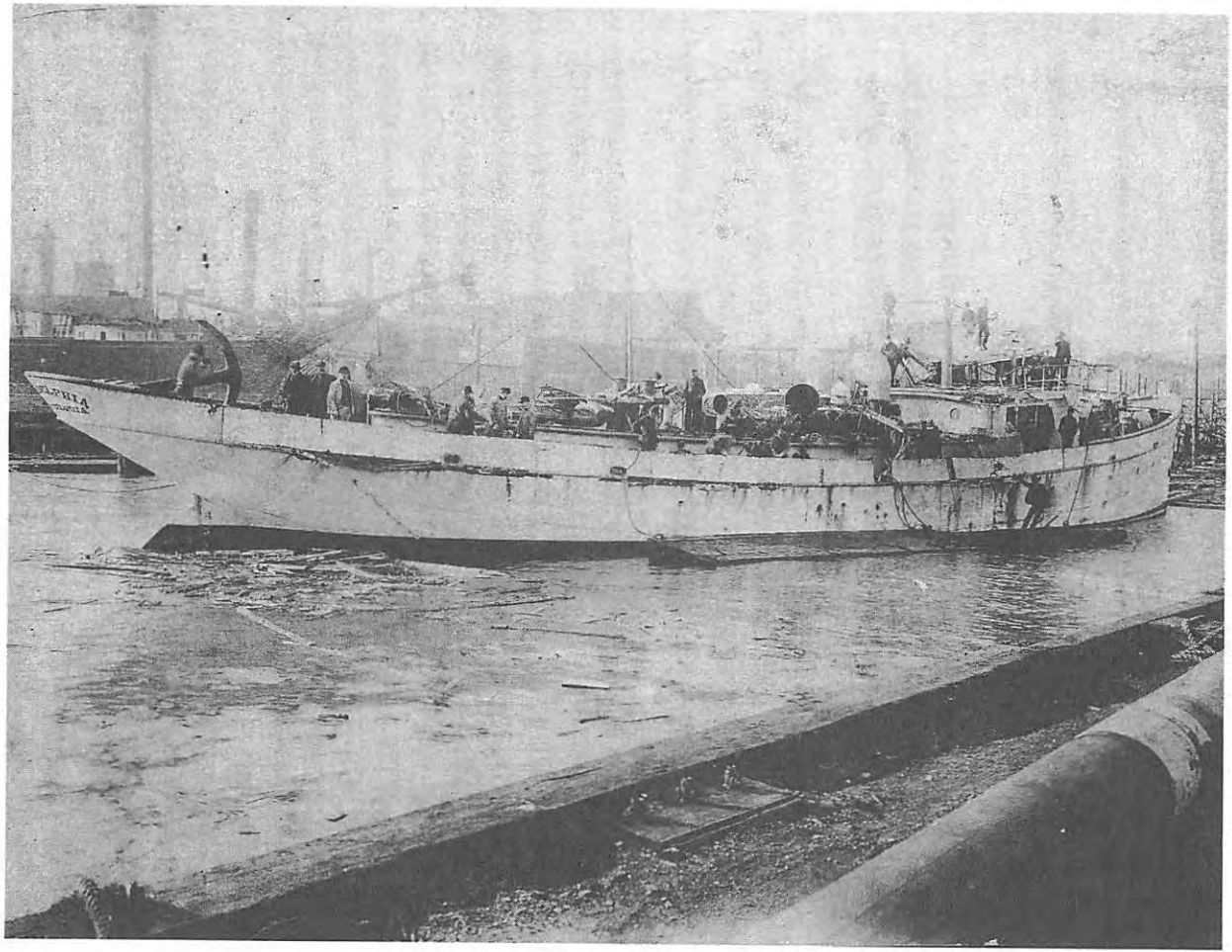
"The new steam steel pilot boat *Philadelphia*, the successor of the first steam pilot boat of the port of Philadelphia, which was purchased last spring by the United States Government, and is now the gunboat *Peoria*, went on duty off the Capes Sunday afternoon.

After a trial trip as far as New Castle and return on Saturday, the new boat left immediately for the Breakwater. There was a large party on board the steamer Saturday, consisting of the members of the Board of Port Wardens, the Pilot Commissioners of Delaware, several of the pilots and a number of guests.

The feature of the trip was the presentation to the boat of a silver soup tureen, beautifully engraved, as a testimonial of regard from the members of the Board of Port Wardens and a number of other friends of the pilots. Joel Cook, president of the Board of Port Wardens, made the presentation speech, and it was responded to by Pilot John P. Virden of this town, president of the Pilots' Association of the Delaware River and Bay. On one side of the tureen is an engraved picture of an old sail pilot boat, taking a pilot off an outgoing ship, representing the pilot service of former years. A companion picture on the other side of the tureen represents the steam pilot boat *Philadelphia* placing a pilot on board a large modern steamship bound to Philadelphia.

The *Philadelphia* is considered the best steam pilot boat ever put into service. She was built by the Neafie & Levy Ship and Engine Co., and is 148 feet long, 26 feet beam and 15 feet depth of hold, being one foot deeper, one foot wider and five feet longer and is a little faster than the steam pilot boat sold to the government.

This ship was sold for scrap to the Sun Ship Yard of Chester, Pennsylvania, for $5,000 in 1948.



After the Hurricane, Philadelphia #2

A newspaper report in The Record of Philadelphia in 1905, provides us with a story of her accident..

Special to *The Record.*

Lewes, Del., Dec. 21: Sudden, terrific and destructive summarizes the hurricane which came unexpectedly and swept the Delaware Breakwater Harbor and Atlantic seaboard last night. The wind at the Breakwater reached the velocity of 60 miles an hour, and a heavy fog and thick driving rain made the conditions for about five hours something awful to contemplate.

About 12 o'clock the big four-masted lumber-laden schooner *Viking* ran down the steam pilot boat *Philadelphia*, lying near the *Overfalls* lightship, and completely dismantled her above the decks. The schooner's jibboom raked her from stem to stern, carrying away her pilot house, two masts, smokestacks, boats and other moveables. There were three men in the pilot house when the collision occurred, and just how they escaped injury is hard to tell. No one on either vessel was injured. The schooner was not damaged.

The *Philadelphia's* machinery was not disabled, and she kept her station here all morning attending vessels, leaving about noon for Philadelphia, under her own steam, for repairs. The English bark *Annasona*, from Dunkirk for Philadelphia, with a cargo of chalk, had a double accident during the storm. The first was her striking on the Hens and Chickens Shoals, just outside the capes. Here she lost one anchor. The sea drove her over the shoal and the bark was headed for the Breakwater. It was so thick the watch could not see the harbor lights and they ran on the Break.

The pilot boat *Philadelphia* arrived at Neafie & Levy's shipyard, Philadelphia, last night for repairs. The damage will amount to several thousand dollars besides putting the vessel out of commission for some time. Her masts, smokestack and pilot house were carried away and deck house badly damaged.

The Mohawk/Steam Pilot Boat Philadelphia #3/ Mohawk.

The *Mohawk* was built by the Pusey and Jones Corporation, Wilmington, Delaware, in 1934, at a cost of $499,800. She was 165 feet in length, with a 36 ft. molded beam and a draft of 13 ft. 7 inches. She had a displacement of 1005 tons and a gross tonnage of 718. Her hull was of steel and she had a speed of 13 knots. She was equipped with a 1500 H.P. geared turbine oil engine.

For awhile, she patrolled the fiords of Greenland. At the beginning of World War II her permanent station was Cape May, New Jersey. She was used to help rescue merchant sailors torpedoed by the Germans during the war.

In 1948 the Pilot Association purchased this ship from the U.S. Government to become the *Pilot Boat Philadelphia #3*. In 1959 it was converted from steam to diesel at the RTC Ship Yard in Camden, N.J. The last ship the *Pilot Boat Philadelphia #3* worked was the *Red Jacket* on June 8, 1975. On July 31, 1979, the ship was moved from Fisher Dock in Lewes to the Army Dock and became the property of the Delaware Technical and Community College Terry Campus. A year and a half later she was moved to Wilmington to become a museum. Her name was changed back at that time to the *Mohawk*.

The Mohawk

A letter dated December 22, 1942 to All Members of the Pilots Association for the Bay and River Delaware, from G. T. Coulter, asks the Association to lend the Philadelphia to the Government for the war effort. He asks:

"The crew of both boats, between 18 and 38 years of age have been sworn into the Coast Guard..."

The Coast Guard has made a survey and inventory of the *Philadelphia* but the commissions of Carleton Tracy, E. Edgens of the Deck Department and Louis Maull, Mr. Tracy and Mr. Buchworth have not come thru, therefore the enrolment of the Boats has been held up.

The legal transfer is shaping up, the lawyer for the Coast Guard has asked for the signatures of all the members agreeing to the loan of the two boats to the Coast Guard for the duration of the war. Mr. Long's opinion is that it is not necessary but states can do no harm and all members are requested to sign at once. Copies of the resolution are in the office and one in Lewes. The facts are if we don't loan the boats they will be requisitioned. Mr. Long has prepared an opinion outlining the legal phase of the transfer, a copy of which is enclosed.

The Coast Guard regulations require a permanent Coast Guard Commanding Office for each of its boats, so as instructed by the Directors this position is to be given to Carleton Tracy. We will continue to appoint Pilots to the station boat who will be in charge of all Pilot movements and will be known as "Officer in Charge of Pilots." He will be responsible for supplying all vessels requesting Pilots with same, and of removing Pilots from out-bound vessels.

Tracy will be in charge of the Vessel including all paper work, requisitions supplies, etc., the granting of liberty and the disciplining of the crew whenever necessary.

Commander Eldridge, Operations Officer, has assured me that it is his intention that the boats are to be run and all procedure to continue as heretofore or as near as can be arranged under Coast Guard control.

All Pilots that have not had their physical examinations are to report as soon as possible to 321 Chestnut Street, 3rd Floor for same. All will need photographs, two full face and two profile. There is no need for a birth certificate for all, only those between 35 and 37 years of age. Please secure your Personal History form from our office in Philadelphia or C.H. Ellis & Co., Lewes, and bring it with you. All those that have had their Physical Examination but have not been finger-printed or made out any Preliminary Papers are to report as soon as possible to the 3rd Floor of 321 Chestnut

Street, Philadelphia (see Mr. Dugan). Pilots will be sworn in just as fast as the applications can be handled. I will endeavor to have those living in Lewes sworn in there.

I do not expect any radical changes and I quote from the Coast Guard Directive:

1. It is not expected that any radical change in piloting procedure will be indicated.

2. The instructions should require an immediate report from the officer in charge of a Pilot group on any casualty in which a Pilot in his group is involved.

Additional instructions regarding uniforms will be issued as soon as they are received.

G.J. Coulter.

In 1990, John Azari, an engineer from Hungary, a widower, sold his tool-and-die business and his house to finance a dream project, and bought the *Mohawk* for $20,000. He towed it to Perth Amboy, New Jersey, to begin a three year project to try new, environmentally sound, ways to propel ships. He is building a wind turbine on the afterdeck, installing solar panels, replacing the twin screws and attaching a series of electric motors to power the ship. All of these are his own design and he will use commercially available parts to execute these plans. (from Phil Milford of *The News Journal* sometime after 1990.)

The Pilot Boat Delaware.

Built in 1929 by Abbott Shipbuilding Company, Milford, Delaware.

LOA 107 ft. Beam 24.5 ft. Depth 11.9 ft. Hull wood.

Cost $135,855.70. The cost to each pilot was $2,227.14. There were 61 pilots in 1929. The *Delaware* was built to replace the *J. Henry Edmunds*, ashore at Cape Henlopen. While the *Delaware* was being built, the Pilot Association chartered the *Leopold Adler*. After the Pilot Association sold the *Delaware*, she was used in a charter business and a diving boat in "the islands."

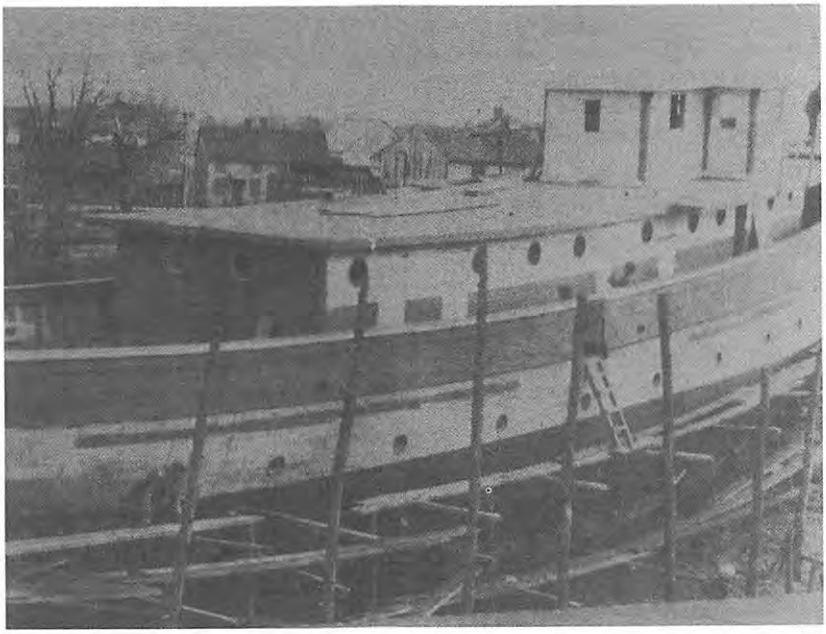


Photo of the Delaware *being built at Milford, Delaware.*

An account of the fate of the Delaware *was made in the* Philadelphia Inquirer, *dated 1953, and titled:*

VESSEL RAMS PILOT BOAT IN RIVER FOG

1 Missing, 8 Hurt As Freighter Rips Craft Amidships

LEWES, Delaware, May 17. An outbound freighter, moving through the Delaware Breakwater in dense fog early today, struck a pilot boat amidship, nearly cutting the smaller craft in half.

One of the pilot boat crew was reported missing and eight others, including a Philadelphian, were brought to Beebe Hospital here. None on the freighter was hurt.

Two ambulances and five taxicabs, dispatched to the waterfront by radio, took the injured to the hospital.

ENGINEER MISSING

The Maritime Exchange said the crash, between the freighter *Corner Brook* and the pilot boat *Delaware*, occurred at 2:20 a.m. near the Overfalls Lightship, about four miles offshore from Fort Miles.

Lloyd T. Larrimore, 54, of Rehoboth, Delaware, an engineer, was reported missing.

The Philadelphian, Theodore P. Bennett, 53, of 215 W. Walnut Lane, a river pilot for the last 29 years, was treated a the hospital for bruises.

OTHERS INJURED

Others injured, all residents here, were Capt. Edwin N. Edgens, 59, of 2nd st., captain of the pilot boat; Louis Cane, 52, of Beebe ave., chief engineer; Otto N. Nillsen, 38, of 107 Jefferson st.; G. Herbert Orton, Jr., 42, and his brother, James R. Orton, 24, both of Pilottown rd., William S. Ingram of Kings Highway, and Earl T. Poole of Pilottown rd.

Cane was the most seriously injured. He was transferred to Wilmington General Hospital for an emergency brain operation. Physicians said he suffered a compound fracture of the skull and listed his condition as "very critical".

The freighter had departed yesterday from Pier 84, South, at Porter st., Philadelphia, after unloading a cargo of paper products from Newfoundland consigned to Furness Withy and Co. The Maritime Exchange reported the ship was headed for Norfolk, Va.

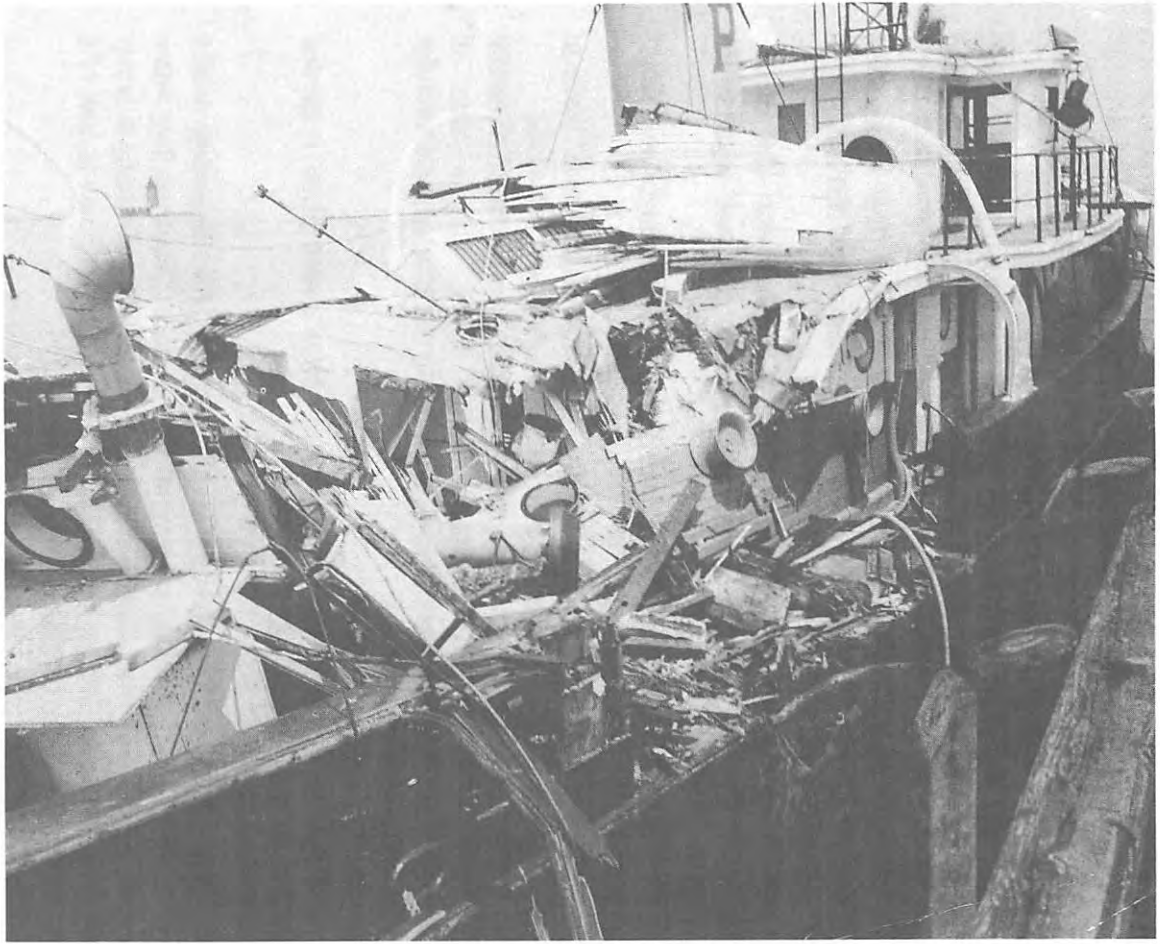
FUEL TANKS UNDAMAGED

The 125-foot pilot boat was standing by in the breakwater to service incoming and outbound ships when she was struck. The bow of the freighter cut into the midsection of the pilot boat and wrecked the engineer room and crew quarters. The Coast Guardsmen gave the following account:

Sleeping crewmen were hurled from their bunks by the terrific impact, and came running out on deck. Through the pea-soup fog they could see the Canadian vessel's bow climbing onto the deck of the smaller vessel, which was taking water fast.

"The crew of the vessel believe Lloyd T. Larimore, 54-year old assistant engineer of the pilot boat, was hurled into the water shortly after the crash."

The Coast Guard spokesman said that the three crew members routed from sleep were Francis D. Reardon, son of Family Court Judge and Mrs.



Crash Damage, the Corner Brook Into the Delaware

Francis A. Reardon, of Wilmington; Earl Aggers and Ed Taylor, both of Philadelphia, and Carson Smith of Wilmington. Young Reardon is a pilot.

According to the Coast Guard account, the *Delaware* began to take water fast, listing dangerously to starboard. Shortly afterward, a pilot launch arrived alongside, and all crew members and officers were removed. The injured were taken to the Army dock in Lewes.

Capt. Garry Edgens, skipper of the pilot boat, declared that:

"We were running under radar—just cruising along in that terrific blanket of fog. It was so thick I couldn't see the bow of my boat."

He said that nearly everybody on the ship was asleep at the time, and did not know what had happened. Larimore was the only man thrown into the water.

Captain Edgens revealed that there were about five apprentices serving on the ship in training to be navigators, but asserted that not one of them was injured.

Capt. G. Herbert Orton, a Delaware River pilot, who was on the *Delaware*, said that when the other ship struck, the pilot boat began to list badly.

"I was hurled out of my bunk, and tried to crawl through the galley," he declared.

"In the darkness, I grabbed a hot stove and burned one hand." He is in Beebe Hospital, Lewes, suffering from burns, bruises, cuts and shock.

...The accident occurred one and a half miles northwest of Overfalls Lightship, when the Norfolk-bound *Corner Brook*, with a cargo of newsprint, collided with the *Delaware*, owned by the Pilots Association for the Bay and River Delaware.

A further report of the damage to the boat comes from a special report from Lewes May 18.

(The photo on the preceding page is the pilot boat *Delaware*, which was damaged early Sunday morning at the mouth of Delaware Bay when struck amid ship by the Canadian freighter *Corner Brook* during a heavy fog. The Delaware left the Army dock at Fort Miles yesterday in tow of a tug for repairs at the Sun Ship-yards at Chester.)

LEWES, May 18-(Special). An official investigation into the collision of the Canadian freighter *Corner Brook* with the pilot boat Delaware, in which one man is missing and eight others were injured, one critically, will

be conducted by the U. S. Coast Guard Marine Inspection Office of Philadelphia, it was disclosed today.

Chief Warrant Boatswain Francis A. Massey, commander of the Lewes Coast Guard Station, said no date has been set for the inquiry into the accident which occurred early Sunday morning in a heavy fog at the mouth of Delaware Bay.

Coast Guard vessels continued their search today for the body of Lloyd T. Larrimore, 54, of Rehoboth Beach, assistant engineer on the *Delaware.*

FUEL TANKS UNDAMAGED

The 125-foot pilot boat was standing by in the breakwater to service incoming and outbound ships when she was struck. The bow of the freighter cut into the midsection of the pilot boat and wrecked the engine room and crew quarters. Crew members said they feel tanks were not damaged in the collision.

Captain Edgens said he was in the wheelhouse of the pilot boat at the time of the accident.

"I didn't see anything until the crash occurred," he declared.

Walter Bennett, in his oral history in August of 1995, made some interesting remarks about the *Delaware.* He said:

> *I don't know what year we got rid of old "Philadelphia," but she was a marvelous boat. We used her for a long time and she was just a wonderful boat in seaway. She was just great as opposed to the "Delaware," which had all sorts of problems. She had a snap roll to her. We did all sorts of fancy things. They built steel bins on her deck and filled them full, to change what they called the metrocentric height or something. That was old Captain Tom Reardon. The "Delaware" was a perfect example of sixty or seventy pilots designing their own boat and saying that they wanted to build her out of good old Delaware oak. She caught on fire one time when I was an apprentice. It was a pretty bad fire. Louie had some fat boiling on the stove and it overflowed and caught on fire. A bunch of us apprentices put the fire out. I had at least ten or fifteen pilots say, "Why in the hell didn't you let her burn."*

THE CREATION OF THE ASSOCIATION

NEED FOR CONSOLIDATION

Pilots from Delaware and Pennsylvania had been competitors for generations. But a historic moment was to unfold just before the turn of the century. Real problems, not just over different pilotage rates and laws, had surfaced in the last quarter of the century. In 1881, the master warden actually refused to license any pilot who either had applied or received a Delaware license. And by mid-1882, seventeen pilots had surrendered their Pennsylvania licenses in favor of Delaware. Adding to the frustrations, when several pilots applied to be reinstated, the wardens ruled that "unless they shall...serve the time of apprenticeship on board a Pennsylvania pilot boat" they could not receive a state license. Trying to resolve the friction and confusion, the wardens arrested a Delaware pilot in 1883, for bringing a vessel from the sea to Philadelphia, arguing that he was not a licensed state pilot. The board hoped, by this tactic, to establish the right of Pennsylvania to regulate exclusively the pilotage of all river commerce entering or leaving its ports. Delaware, at that same time, claimed the right to make its pilotage system compulsory upon all vessels bound to and from the ports of Pennsylvania. But as of 1893 neither side had gained a clear cut advantage. For though the board unanimously adopted a resolution in March of that year to prohibit any pilot, licensed by another state, to cruise on any Pennsylvania pilot boat, under the penalty of indefinite suspension to any state pilot who permitted an out-of-state pilot to cruise with him, the wardens repealed the ruling within and permitted two non-Pennsylvanians to cruise on the *W.W. Kerr*.

In an unusual set of circumstances, which ended with the competing pilot groups' cooperating with each other, the case of the *Henry A. Burnham* in 1886 revealed the full extent of the "serious complication" involving the pilots of both states. In a federal court case in 1882, the decision of the judge upheld a federal law passed in March 2, 1837, allowing a ship captain, entering or leaving a port situated upon waters which border two states, to employ any pilot duly licensed

by either state to pilot his vessel to and from such port. In the same year, 1882, Delaware fixed its pilotage rates above those of Pennsylvania. As a result a problem had arisen; whereas the statutes of both states established the policy that the pilot who brought a vessel into port should take it back to sea, with the Pennsylvania pilots charging cheaper rates, vessels that entered the port with a Delaware pilot tried to hire Pennsylvania pilots to direct them down. But "believing that 'in union there is strength'," the commonwealth pilots refused to do just that when the captain of the *Burnham* sought out a Pennsylvania pilot, even after Master Warden Ross, with the full support of the board, demanded that the pilots perform their services. Such action contradicted the wishes of the pilots, who doubted the authority of the wardens on this matter and refused to comply. Instead the two pilot associations made a pact that "the pilot boat first speaking a vessel outside the Capes would not be interfered with by a pilot boat of the other state;" moreover, that pilot, under the agreement, would return the ship to sea, if the captain consented. Ironically, the *Burnham* left port without a pilot, resolving nothing, though the wardens warned the pilots that the next refusal would result in the loss of the offending pilot's license.

That pact between the pilot groups initiated the type of cooperation that led a decade later to the creation of a joint association of Pennsylvania and Delaware pilots, and it was accomplished with the approval of the wardens, who expressed their hopes for service "equal if not superior in every respect in efficiency to that now existing." On December 1,1896, with the winter season on the horizon, the two pilot organizations formally became one, the Pilots Association of the Bay and River Delaware. Eleven winters later, the board of port wardens, an historic institution all its own, ceased to exist, completing yet another chapter in the history of the port of Philadelphia.

THE AMALGAMATION

Under the new regime there is no chance for dispute. The pilots have pooled their interests to their mutual benefit. The proposition of the new steamboat was the trumpet signal for peace; in fact, anything else would be an impossibility, for the pilots take their turn by drawing lots, and are assigned to the cruising station eight and ten at a time. When that number has been disposed of they are replaced by another

set, who likewise take their turn by one, two, three, and so forth, until each of the eighty-nine members has had a "chance" as it is called. A chance includes taking a vessel up and bringing another down, but in case a vessel is ready to come down before the pilot whose turn it is can reach her, he forfeits his chance temporarily to the next in number. By this system everything is conducted equitably, and although one pilot may get a twenty-four-foot vessel and another a fifteen-footer, things somehow manage to even up so that they all make about the same amount of money taken on a yearly average. After all, the old-time quarrels of pilots were nothing more than words—words uttered with the vehemence that characterizes, on the other hand, the hearty good-will of these gentlemen sailors. It is proverbial with pilots that all their arguments end in a handshake.

At the present time, more than ever, have the questions of the past been sunk fathoms deep, metaphorically speaking. No species of rivalry could exist under the present conditions, when every pilot, whose turn it is to "cruise," treads the deck of the *Philadelphia* with conscious and pardonable pride.

The *Philadelphia* left Queen Street Wharf, this city, on the afternoon of Tuesday, July 13th, 1896, having on board a large number of pilots as guests, with their sons, the president of the Pilots Association, J. P. Virden, George Bellevue, superintendent of marine construction for the boat, and Pilot Samuel Wise. The *Philadelphia* was dressed in holiday bunting, and as she glided down the river was greeted by craft, large and small, to the full range of the gamut.

At midnight the *Philadelphia* anchored inside the Breakwater, and at five the next morning started on a quadrilateral cruise for the purpose of attaining that difficult object the adjustment of compasses.

At Lewes a similar ovation to that of Cape May was given the succeeding day. Of the ninety-four pilots who constitute the Pilots' Association, not more than fifteen live in Philadelphia, the remainder being divided between Cape May (32) and Lewes (47). Consequently great local interest centered in the new boat, which is jointly owned by the members of the Association, every member holding an equal share.

When the transfer of material was made from the old boats to the new it was known that the *Philadelphia* had formally gone into commission; that the era of the sailing pilot boat so far as Delaware Bay is concerned, was at an end.

Courtesy George E. Chambers, Sr., Via James E. Marvil, M. D.

MORE PILOT STORIES

A. CAPTAIN WALTER L. BENNETT, SR.

Captain Bennett was born in 1891. Sailing craft were frequent when he received his first pilot license in 1912.

He piloted many three masted schooners, barks and other ships which were then sailing the Delaware Bay and River.

When examined for his first license he was questioned in regard to sailing ships. The first question was "how would he proceed to take a square rigged ship to sea, which was anchored at Bombay Hook, with an ebb tide and northwest wind?" "What commands would he give to get the ship on its way?" He was also asked "how to heave to in bad weather so that a pilot could be taken off at Cape Henlopen," and "how a lee could be made so that a pilot skiff could come alongside safely?"

Captain Bennett states that "pilots were technically in charge of giving commands for shortening sail, etc., but usually such commands were given by the captain and mates of the sailing ships."

Captain Bennett compares the examination given today with former ones and feels todays examinations are very difficult. Pilot apprentices today are given from twelve to fourteen days of written examinations before they get their first license.

Captain Bennett feels that he had a very uneventful career since he was not involved in any fires, rescues or shipwrecks. His largest ship was thirty five feet draft and his longest trip from Philadelphia to the Capes or vice versa, was four days. He remembers when sailing ships were anchored in the Harbor of Refuge at Lewes in winter. If the water was icy it would be necessary to take time for wood or copper sheathing to be placed at the water line twenty to thirty feet, from the bow of the ship aft so that "window pane ice" would not cut the planking. Captain Bennett says that "such ice could sink the largest wooden ship in a very short time."

Captain Bennett is one of eight generations of his family to be pilots and has many recollections of stories which have been passed down to him from other members of his family. He remembers his grandfather, Billy Jackson Bennett, who piloted a bark in a snow storm and was anchored at Brown Shoal. The anchor chain parted in the storm and the ship went ashore on Brandywine Shoal. The ship was breaking up so a lifeboat was lowered. Since thirteen men were on board, the captain decided that one man would have to stay on ship as

thirteen would be bad luck. Eleven members of the crew and the pilot made shore safely near Cape May and the thirteenth man was drowned on the ship.

B. JAMES K. ROWLAND

Capt. James K. Rowland told of the gale of '89, when as a fledgling pilot of 25 he and his crew were 12 days adrift in the water-logged *Ebe W. Tunnell.* "With every high wave, he recalled, 10 tons of water washed over us. All the food we had was some hardtack and sugar, kept dry in a washbasin, and some coffee was tied up in a pillow slip. When we finally got back to the breakwater, we found the beach strewn with wrecked vessels and the town believing we were lost."

"We had a young man aboard, Harry Hickman, who had gone with us just for the "ride". When his mother saw the ship come in the harbor, she was so excited she started wading out in the bay. If somebody hadn't caught her she would have been drowned."

C. CAPT. HARRY LYONS

"In the old days, there was much rivalry among the pilots. Competing groups owned the fast sailing vessels. The first boat to reach an incoming ship got the pilot's fee. They sometimes went out 200 miles to sea to be the first to reach a ship. However, we had 93 pilots then and the earnings were small 'pickings'." Until 1881, all pilots were licensed under the Pennsylvania law, and in 1896, when the present association was organized the number of pilots was reduced to 63, and incomes were better for us. We abolished the competing groups, banded together on a share-alike basis, with two pilot boats, the *J. Henry Edmunds*, a sailing vessel and the *Philadelphia*, the first steam pilot boat.

D. CAPT. JOHN W. JOSEPH

In one of the competing races Capt. John W. Joseph was caught in a series of storms that finally fetched him off Bermuda, when the high seas rolled out the foremast. He was thrown down a hatchway and received several broken ribs. He didn't forget his Pilot's duty and on the way back picked up another ship which the skipper piloted up to Philadelphia, earning his fee on one of the longest trips on record to get a vessel.

E. CAPTAIN LEWIS CHAMBERS

Before the Association was formed in 1896, the pilot rates were all the same. The first schooner to reach a steamer furnished the pilot and at times when schooners thought each was first the race would depend on which skiff with the pilot aboard, would reach the incoming ship first. The skiffs were wooden dorys and were manned by two sailors rowing from pilot schooner to incoming ship whether it was a sailing vessel or steamer. A certain amount of cooperation did prevail among the pilots before the association was formed. It was agreed that each of the eight schooners would take turns for a week at a time and act as take-off boat near Cape Henlopen to take off pilots coming down the river. This ship would take care of pilots from all of the other schooners.

After spending a week on station near Cape Henlopen, the pilot schooner would lay in supplies, take six pilots aboard and take off again for its cruising ground.

The *Tunnell* and the *Edmunds* cruised in the vicinity of Five Fathom Bank to meet ships coming from Europe. These pilot schooners stayed out in all weather and were under way all the time. Their sails depended on the strength of the wind and type of the weather. At night it was customary to put one or two reefs in the mainsail and foresail and to heave to as much as possible after dark.

The *Tunnell* cruised in the vicinity of Five Fathom Banks and at that time there were two lightships in the vicinity—the regular lightship near the southern tip of Five Fathom Bank, and one at the northeast end of the bank called the Northeast Lightship. In bad weather the position of the Pilot Schooner would be determined by the use of the lead line or the "Blue Pigeon" as it was nicknamed by the sailors.

It was also customary to "speak vessels" and ask them their position at the time. Of course in good weather they would shoot the sun with the sextant when Boatkeeper Magnusen was aboard.

The Schooner *J. Henry Edmunds* also cruised in the vicinity of Five Fathom Bank and was owned by Cape May pilots. It was quite a race to see which pilot schooner would get a pilot aboard a ship first.

Captain Harry Chambers, now a retired pilot, was on the Edmunds in the early part of his career. The pilot schooners *Kerr* and *Whilldin* cruised in the vicinity of Fenwick Island Lightship so that they could meet ships coming from the West Indies.

On one of these cruises the *Kerr* was lost in a severe storm and all hands perished with the ship. Five pilots were aboard. There is a gravestone in St. Peter's Episcopal churchyard in Lewes commemorating the memory of Pilot James Kelly, one of the five lost.

A Negro cook, Jubal Hevelow, was lost on the *Turley*. Some of his descendants are still found in Lewes. One of the owners of the *Turley* was Captain John Kelly.

The *Turley* was lost in April of 1889. Some wreckage came ashore at Fenwick Island but nothing could be identified as definitely belonging to the *Turley*.

The pilots had very strong constitutions and frequently endured severe hardships.

On one occasion Pilot Marshall Bertrand, with three Norwegians, went out in a skiff to put a pilot aboard a ship. Because of bad weather the skiff did not make the ship and could not find its way back to the pilot schooner. They were blown out to sea and picked up several days later by another ship. One man was dead and the other three were almost overcome by cold and exposure. Captain Bertrand was the only one able to lift his arm to signal the ship that he was alive. It is said that part of the dead man's arm had been chewed away.

At times the pilot schooner would not be able to attract a ship's attention and it was customary for the pilot schooner to fire a cannon in the direction of the steamer to attract their attention.

In 1896 when the Pilots Association was formed, the *Tunnell* was kept for a while as a take-off boat for pilots, in addition to the steam pilot boat, *Philadelphia*. The schooners, *Bayard* and *Kerr* were then used for boarding boats for in bound ships. At that time square riggers were quite common, as were many two, three and four masted fore and aft schooners.

In the gold rush of 1898 the *Tunnell* was sold and sent to the Klondike in Alaska.

F. MARSHALL BERTRAND

Horror of Days Adrift on Wintry Sea in Open Boat Recalled by Pilot.

(Special to the Evening Journal, *Wilmington, Delaware, 1932)*

Lewes, DE July 12--Seldom more than once in a lifetime comes to one man such an experience as happened to Captain Marshall Bertrand, of Lewes, Delaware.

Once a vigorous pilot of the Pilots' Association of the Delaware Bay and River, but on the retired list for seven years, Capt. Bertrand's story proves that even a pilot's life, spent in navigating coastwise steamers between Lewes and Philadelphia, can know the elements of exposure, starvation, and death when a northeaster gets the master hand.

When the Pilots Association consisted of a fleet of eight sailboats that transported its men from the shore to the incoming vessels waiting around Cape Henlopen instead of the two trim steamboats of today, one morning 58 years ago, the *"Enoch Turley"* set out to dispatch Captain Thomas R. Marshall to his ship. Accompanying the pilot was Bertrand, a full-fledged pilot of one year's standing, and two Norwegian sailors. The small skiff used to put the senior pilot ashore had difficulty in steering through the rough waters lashed up by the northeaster, and after setting the pilot to safety the skiff was driven out to sea beyond the reach of assistance.

The hours of horror that followed are recounted by Capt. Bertrand:

"We realized that if the northeaster continued we would be adrift for some time. The weather was bitterly cold, it was Thanksgiving Day, I remember. We had only our coats, no food, and a pair of oars. Farther and farther up the coast we were swept, about forty miles off the shore of New York, I should say. The first night was terrible enough, but when the time lengthened and other nights followed, and other days, horribly cold, we thought we were done for. The two Norwegian sailors got the worst of it. One man, crouching in the icy water in the bottom of the skiff, refused to help himself keep up his circulation, and on the second night we saw he was dead, frozen to death.

"There we were at sea, lashed about with no sign of help, and a dead man at our feet. And no food. There was nothing else to do but what we did. The frozen man was our only chance of food. We cut off his legs and divided some of the flesh between us. But the other sailor was losing his nerve by then and was beginning to crouch in the boat to escape the terrific cold. I knew that soon I would be alone if that was allowed, so I started to fight with him. We pummelled each other from one end of the skiff to the other. But the sailor soon lost his zest for fighting and I had to fight him without resistance. The pummeling kept up my circulation, but it almost killed him. He was black and blue, and slowly freezing to death.

"Finally, after eighty-seven hours of that we were sighted by the schooner *Emma F. Angell.* I had torn loose some of the foot boards of the skiff and made a mast, hanging on it the dead man's coat as a signal. The schooner's master, Captain Gustavus Tripp, thought the object he had sighted in the water was a bell buoy bobbing about around Fenwick Island shoals. When he came closer he saw it was us. When they tried to get us aboard my legs were bent from the knees down and I could not walk; they were frozen stiff. The other fellow was about unconscious, but the worst he got was the bruises and cuts from the scuffling we had to keep alive."

The result of that experience, Captain Bertrand says, was that he spent 28 weeks in the hospital with his legs elevated. Amputation was believed necessary, but the vigorous young pilot wouldn't hear of it. All that came off, he recounts was the skin of his legs that shed like rubber boots, and his toenails that continued to shed once a year. Another result of the exposure was loss of his hair and beard that wiped off with the cake of ice over his head and shoulders. Not until 10 years ago did they resume normal growth. Otherwise, the captain was none the worse for wear. Today at sixty-nine years of age, his biceps are massive and like iron.

Captain Bertrand is of French descent, "French by American consent," he says. His mother was American. She died when he was a small boy from cholera contracted from a cholera-stricken horse while attending a circus out in St. Louis. He was sent to live with his grandfather, William M. Marshall, in Lewes. He has been making his home on State street, near the beach, for twelve years, and his favorite pastime is reading Wild West stories. He says he's never tasted a drop of intoxicating liquor in his life, "but he's strong for repeal of the Prohibition Act."

THE BERTRAND SAGA (as told by Andy Knopp in 1996)

In 1959 the Tanker *African Queen* went aground off the Delaware Capes. Merritt, Chapman and Scott tried to salvage her but they were unable to float her and the ship was up for grabs. Every boat able to make the trip out to the grounded vessel was underway hoping to salvage whatever would fit in their boat. Three men decided they would claim the vessel for themselves. One of these men was Louis Bertrand, great nephew of Captain Marshall Bertrand. Louis had the first watch. The vessel had broken into two pieces. Louis was stationed on the bow

when a storm came up on March 6, 1959. The bow capsized and Louis was lost. In 1958 Louis had applied to be an apprentice. A new applicant had to serve one week on the pilot boat before submitting his name to the Pilot Commission. I was on the pilot boat when Louis served his week.

G. RICHARD RUTHERFORD

In the early days the old sailing schooners did not draw much water and went up the west side of Brown Shoal. Today the deep channel is at the east of Brown Shoal. The main channel formerly went to the west of Pea Patch Island while today the channel is on the east side. Legend has it that Pea Patch Island is named because of a British ship which ran aground on the shoal in a "gale of wind." The British ship was loaded with pea seed which spilled in the mud and took root. Vegetation sprang up and collected mud from which an island developed.

Another story about Pea Patch Island is — A haughty British captain of a freighter had been very rude and difficult to the young Bay and River Pilot on the trip to Philadelphia. When abreast of Pea Patch Island the captain approached the pilot and said, "I say, young man, what is that fortress to the port side?" The pilot, who had taken his limit by that time, replied, "Why sir, that is what we have to keep the 'Limeys' from reaching Philadelphia."

Captain Richard Rutherford graduated from school in 1939 and, being a native of Cape May, came into the Association through Pennsylvania. He worked on the pilot boat as a sailor at fifty dollars per month and then as mate and later captain before he joined the Association as an apprentice. At that time he worked twenty five days and had five days off. He became an apprentice in 1940 when three hundred ships per month were piloted and first class pilots averaged around three hundred dollars per month. Active pilots now average twenty five trips per month.

H. CAPTAIN JOSEPH, as told by Walter Bennett August 1995:

Pres Joseph was a very pictorial sort of a guy. He had teeth, big eyes, and big eyebrows. He always wore an enormous ring. In those days pilots always wore a great big diamond on their little pinky. Capt. Joseph had about the loudest, deepest voice of anybody I've ever known in my life.

He'd stand at one end of Second Street and Mrs. Bennett would be at the other end and he'd holler to her and he'd say, "Where's that meal ticket of yours today. Is he out buying some squid? Gone fishing?" These are days when we didn't have radio telephone and there were three loaded tankers maneuvering trying to get into Marcus Hook anchorage and it was thick fog. It was one of these days when slow ahead, come head to steer 333, stop the engine. The next guy would blow the whistle. It was a very tough and tricky sort of a situation. When Captain Joseph thought he had his ship just right he'd bellow at the top of his lungs, "Let go of the starboard anchor." Mates on all three ships let go of their anchors. He was supposed to be the only man in the world that ever anchored three ships at one time. It's probably a damn lie.

The next story he told was about Yank MacIntire. Several of the other pilots told this story also. Bennett said:

Yank MacIntire was a big man and we had this little guy, Harry Virden, from Philadelphia. He weighed about one hundred and twenty-five pounds. He was a dude. He was always real dressed up. In those days pilots wore a striped shirt with a detachable collar. Both Captain MacIntire and Captain, the little guy, Virden, were sleeping. One of the apprentices went down and took the collars of the two shirts and they put Harry Virden's little tiny collar on Captain MacIntire's shirt and visa versa. My grandfather told me this story. He was on watch in the wheelhouse in those days. There was a ship coming in for Capt. MacIntire, so the apprentice went down and called him and said Captain MacIntire, we have a ship coming in for you at a fast shot. And he got out of his bunk groaning and moaning, pulled on his trousers, put his shirt on and went to fasten his collar and it only came to his ears. He went up in the wheelhouse and he said to my grandfather: "Joe, I'm sick. I'm all swolled up. I've got to go on shore right away to the Beebe Hospital." Then I guess they told him what happened. I think that's pretty good.

The story about his father's electrical suit is very amusing, but also causes us to realize how much better cold weather clothing is in these times. Bennett said:

> *My father loved celestial navigation. When he had some time off he used to go to the Fels Planetarium. We have no use whatsoever for celestial navigation in our business as pilots. I remember one time I was standing on an early morning watch. Dad came up on the bridge. "Wait, see those stars. What are they?" "Damned if I know." "That's what I call ignorance," and turned around and walked away... But my father hated to be cold, so he wired a suit. It worked fairly well except on ships of different nationalities. They had different gauges of plugs and that sort of thing. I think a couple of times the thing almost blew up on him. I remember when I first started piloting they'd ask me: "Are you any relation to that Bennett who had an electrical suit?" You know staying warm was a real problem. They didn't believe you should have any heat on the bridge of the ship. They said a man who was comfortable would get too sleepy. And especially those Norwegian and Swedish ships. It was mighty cold...*
>
> *I'll tell you one thing... The old Navy bridge coat that weighed about 30 pounds was absolutely the worst thing in the world. It was heavy. The average watch was four hours. Well, you can stand on your head for four hours. But a pilot often stood 12-15 hours watch. It was tough. Before they had insulated underwear and other things the pilots were beginning to learn about layers. I always carried it and this is what most of us did in the early days. And that was plain silk stocking, leather shoes, heavy, woolen socks (oversize socks) over your shoes and a canvas galosh over that. They came along with long johns. Insulated underwear was good. Layers were important. I finally ended up with an overcoat that didn't weigh 5 pounds, kapok or Down.*

Both Walter Bennett and Harry Rowland owned an airplane together. They were tired of travelling up through Delaware and down to Cape May by car or train. So they decided to purchase an airplane so they

could go to work with ease, just fly over the Delaware Bay. We'll get both sides of the story here, starting with Walter's version.

Years ago Harry Rowland and I bought an airplane together. We flew it. It was a nice airplane. Aircoupe was the name of it. An Aircoupe was a little low wing monoplane. Tricycle landing gear. You could open the cockpit and sit side to side, or you could fly open cockpit or you could close the canopy and have a closed cockpit. Jud was taking flying lessons from some guy in Milford. He called the guy up and he was learning to fly a Cessna. This guy said, "Look, I'll pick you up in an Aircoupe in twenty minutes at the Rehoboth airport." This guy said he drove down to Rehoboth Airport. In a very short while this Aircoupe came in and landed. This bear got out of the Aircoupe. I looked, it was a complete polar bear. I said, "Is that you, Barney?" "Who do you think it is?" "What are you wearing that for?" "Wearing what?" He got in the airplane and the bear drove him back to Milford. They took a flying lesson. What was that all about? The guy was so poor I don't think he had an overcoat. He was wearing that to keep warm... The Aircoupe was a very easy airplane to learn to fly. It was coordinated with the airlines and there were no rubber pedals. If you wanted to go up, you pulled it back, left and right. I soloed the Aircoupe after three hours instruction. Mr. Henry Burton was the money man in back of the Aircoupe. He had a big house in Rehoboth. Incidentally, he had a big German Shepherd dog. He opened the cockpit up and he put the Shepherd dog in the pilot's seat. On international advertising, it says, "Any son of a bitch can fly this airplane."

Harry Rowland tells it this way:

The true story is that he was at my house (I lived at Second Street) on a Saturday night to a party. In those days the Cape pilots all started-wherever you lived-you started from Philadelphia. You had to block two ships. So you ended up losing a night. If they wanted you up there early in the morning, you had to lose that night because you went up on the 5:59 bus. So, after a few, he said to me. "If we had an airplane, we could tell 'em to stick that order and we'd come

up in the morning in our little airplane." Of course I agreed with that, drinking the same whiskey. Sunday afternoon he dropped in my house and he said, "Harry, I found the airplane." I think I'd almost forgotten we had the conversation. I said where do we find this airplane. He said "Down in Rehoboth. In fact I had a ride in it today. I've made an appointment for you to make the trip tomorrow." So I went down on Monday. He was down there when I got my little flight. And we bought an airplane. Neither one of us knew whether we could fly and we paid for a brand new airplane $3,200.50 and in due time it was delivered. With the purchase of the airplane we got eight lessons. He took four and I took four and I had to pay for two and he had to pay for two—six lessons and we soloed. It was an airplane that would fly itself. Had a great two-and-a half, three years. Loved it. Walter landed in Dover and touched a fence. He was turning around in front of some other traffic at Rehoboth airport and run into a pole. And so he didn't want any more of it so we got rid of it.

LEWES COAST GUARDSMEN MOVE INTO NEW QUARTERS

After weathering more than 55 years at the storm-lashed Capes of Delaware the antiquated building of the Lewes Coast Guard was evacuated on Monday when the lifesaving vigilantes moved into their new and model home.

The new $52,000 building which shows the Colonial influence along architectural lines, in keeping with this historical vicinity, has been under construction the past year by the government. It was erected directly in the rear of the original station, which was built in 1884.

The old building, it is understood, will not be demolished, but converted into another useful capacity at the Capes. Bids on the building are now being received by the government. A local night club owner, Stephen Pierce, is making plans to purchase the small two story structure with lookout tower as is, and move it to the point of the Capes where he will convert it into a night club, and retain as much as possible its nautical features. Several prominent Sussex Countians are said to be associated in the enterprise.

The modern station has been erected approximately 100 feet farther back from the water's edge, and has a much greater capacity than the old one. The crew of 15 men now at the station, headed by Captain Carroll A. Osborne, has been moving furnishings into the new home this week, and they expect to have all telephone and radio equipment installed by the first of next week. The grounds around the building have been nicely landscaped and planted in grass and shrubbery. Several outbuildings formerly located near the highway have been removed from the rear, and persons driving along Cape Henlopen Drive to the Capes now have an unobstructed view of the handsome structure.

Located at a strategic point on the Delaware Bay where many vessel has foundered, The Lewes station has figured in scores of heroic rescues in Coast Guard history. But the Lewes crew now operates with the finest of Coast Guard equipment; two-way radio for its speedy patrol boats, wireless telephone, and modern pier, a vast improvement over those facilities available to the crews of its earlier days. Half a century ago their only means of reaching vessels in distress was by row boats, called "Beebe boats," after their inventor. On long trips they had to be towed by tugs, thus causing considerable delay in reaching some foundering craft.

The first skipper of the Lewes Life Saving Station was the late Capt. John A. Clampitt. Among others who succeeded him are Capt. John S. Lynch and Captain John Wingate, who are spending their declining years in Lewes.

The present efficient crew comprises: Keeper and officer in charge, Carroll A. Osborne, chief boatswain, L; Boatswain Mates Clem Leevendoski and Ruppert Hall; Motor Machinist Mates Claude Hastings and Charles Aydelotte, and the following surfmen, Aubrey Beauchamp, John M. Quillen, Charles Massey, Theodore Mitchell, George Merritt, Walter O. Bryan, Hilliard Palmer, Leonard Scott, Harry Metzner and Charles Mitchell. The station personnel is expected to be increased to 17 or 20 men now that the new building affords larger quarters.

(The next three sections were prepared recently by Andrew Knopp in conversation with other pilots)

THE PILOT

In 1896 there were two classes of pilots. One held a 12 ft. license and received 60 percent of a first class pilot's share. The full class pilot had no restrictions on draft and received 100 percent.

On May 3, 1911, there were three classes of pilots: a 12 ft. license getting 60 percent of a first class pilot's share, a 23 ft. license getting 85 percent and a full pilot receiving 100 percent of the earnings. If a pilot could not move up because there was no opening he would only receive 75 percent pay. This situation could occur because state law allowed fifty-two pilots from Pennsylvania and Delaware allowed fifty-two. Ten of these pilots were third class and forty-two first class. Therefore, if the forty-two places were filled, the pilot had to remain third class and receive 75 percent of the earnings until a space became available.

From 1896 until the present time an oral examination has been required to obtain a State License. In the early fifties both a State and a Federal license were required.

In 1944 a special 15 ft. license was granted to T. Rowland Marshall. This was granted because of the shortage of pilots during the war. In 1945 F. I. Walls and J. P. Joseph also were granted a 15 ft. license. In the early 1950s, because of larger ships, it was necessary to increase the 15 ft. license to 20 ft. and the second class from 23 ft. to 27 ft. Sam Schellenger informed me that he started with a third class 23 ft. draft around 1954.

In 1953 deputy pilots came on the scene. To be a deputy pilot, you had to have already served three years of your apprenticeship. The deputy pilot was created because there was a shortage of pilots. He was paid by the Association. According to J.W. Guilday's records, he averaged around $750 per month as a deputy pilot, which works out to be 40 percent of a first class pilot's pay plus a $75 check for expenses.

Because of a collision in 1953 Commissioner Francis D. Reardon, an attorney by profession, was concerned about the liability outcome of any deputy pilot involved in a collision, since the deputy pilots were paid by the Association. Because of the potential for a lawsuit, the deputy pilot category was eliminated and the apprentice had to serve his four years. J.W. Guilday and D. M. Douglass, Jr., were the last two deputy pilots in Pennsylvania.

In the mid-fifties a tonnage restriction went into effect on twenty-three footers. When I (Andy Knopp) went free in 1961 I was restricted to 6,000 tons the first three months, 9000 tons the next six months and 12,000 tons the last three months. To go into the Chesapeake and Delaware Canal, you had to have a twenty-seven foot license. The maximum draft in the canal at this time was twenty-five feet.

In 1968 there was a new class pilot. He held a thirty-four foot license. This enabled him to pilot ships up to a thirty-four foot draft. He received 90 percent of a first class pilot's pay. This new class was needed because of an increase in the size of ships. This gave the pilot more experience before moving up to first class. It was a big jump from twenty-seven feet to first class. The first pilot affected by this change was George G. MacIntire.

On July 1, 1984, W.E. Bailey, H.B. Wyche and W.D. Glaser started with a twenty-three foot license. Their first twenty-five ships piloted could not exceed 12,500 tons. After twenty-five ships the tonnage increased to 15,000 tons. In November 1984 the twenty-three foot license was changed to a twenty-five foot license, and the following classifications were established:

4th Class	3rd Class	2nd Class (1st year)
25 ft. draft	30 ft. draft	35 ft. draft
15,000 tons	25,000 tons	30,000 tons
60 percent	80 percent	90 percent
2nd Class (2nd year)	1st Class	
35 ft. draft	No restrictions of any kind	
No tonnage restricts.		
90 percent		

In 1993 there were six classes of pilots with no tonnage restrictions.

6th Class	5th Class	4th Class
25 ft. draft	30 ft. draft	35 ft. draft
650 LOA*	700 LOA (1st 6 mos.)	850 LOA
50 percent of 1st class pay	750 LOA (last 6)	70 percent of 1st
	60 percent of 1st class pay	class pay

3rd Class	2nd Class	1st Class
40 ft. draft	45 ft. draft	No restrictions
No LOA restriction	No LOA restriction	100 percent pay
80 percent of 1st class pay	90 percent of 1st class pay	

*LOA means length overall

In 1975, a law was passed requiring pilots to retire at age 70.

THE APPRENTICE PILOT

Before the Pilot Association was formed in 1896, the apprenticeship was six years. By the early 1890s apprentices had to make the round trip twice in a square rigged vessel and twice in a steamship of at least twenty foot draft in each and every year of the last four years of their apprenticeship—and with safety in mind. The wardens also established an eye examination. On December 2, 1896, the Association passed a rule that all apprentices would be paid $5 per month.

In 1911 the apprenticeship was changed from six years to four years. E. C. Kelly was the first apprentice affected by the change. Captain Kelly went free September 1913.

According to Captain D. A. (Tony) Potter, his apprenticeship was very hard. He would work four hours on and standby four hours. There was no apprenticeship system set up for the apprentice at this time. He would be on the pilot boat about a month or less. When off, he made trips on the river with other pilots.

When I (Andy Knopp) was an apprentice in 1957, we had an abundance of apprentices (30). Besides manning the launches the apprentices were assigned to various other jobs. One of these jobs was being in the office for a one week period receiving $5 a day for food. While in the office, he made coffee, woke pilots after the dispatchers departed at 5:00. If any problems came up, he would call the dispatchers at home.

At the Capes one apprentice was assigned to help our Port Engineer, Bob Yost.

In 1964 there were fourteen apprentices. The number varies frequently since apprentices become "free" after four years and then are "footers." This means that the ships that they can pilot are of not more than so many feet (23) draft with first license issued to them. New apprentices are taken only when it appears that vacancies will exist due to the retirement of older pilots. The maximum strength of the Association has not increased materially for several years.

Life for apprentices is made up of watches—six hours on and six hours off. For those with less than two years service, two weeks on and one week off is the rule. Four trips with licensed pilots must be made

by each apprentice at the end of each liberty. Senior apprentices, those with more than two years service, have one week on and one week off and are required to make four trips each liberty up and down the Bay and River with licensed pilots.

Two apprentices are "assigned" each watch to each motor boat on station. One apprentice is assigned to deck watch as assistant to the mate or captain on duty in the wheelhouse. One "extra man" apprentice is assigned to be called on for any type of duty in a twenty-four hour period.

Apprentices are required to become proficient in studies of navigation and piloting. Any apprentice failing tests loses shore liberty for a specified period. Senior pilots supervise studies. In November 1964 Pilot L. B. Knapp is in charge of teaching "Rules of the Road." Pilot James Roberts is in charge of teaching chart work. Pilot T. R. Marshall is in charge of teaching compass work. Pilot W. T. Poulterer is in charge of teaching "local knowledge and general navigation."

Apprentices are, by and large, sons or relatives of senior pilots. Occasionally an outsider is admitted. Prospective apprentices are required to spend a week on board the Pilot Boat *Philadelphia* before they make formal application. Many lose interest when they find out that much hard work and bad weather takes away some of the glamour they had associated with being a pilot.

The apprentices man the 45-foot diesel motor boats and become expert in approaching large ships in heavy seas. In 1963, a pilot lost a leg because the motor boat was dashed against the side of a ship before the pilot could climb up the ladder with the pilot's leg being caught between the motor boat and the ship. Apprentices say that there have been many narrow escapes of injury during heavy weather.

No radical changes occurred in the apprentice system until 1975 when a dispute between the Pilot Association and the apprentices ended up in court. A Federal Judge ruled that the apprentice had to be paid a minimum wage when he was in a working capacity. When in a training capacity (making trips on the river) no pay was required.

No longer owning a large pilot boat, the apprentice could not get hands-on experience as well as learning many aspects of seamanship. The next problem was sea time. Three years sea time is required by the Coast Guard to get a federal license.

On June 17, 1980, three apprentices were taken. Howard B. Wyche became our first African American apprentice at this time. The

other two apprentices were Wayne E. Bailey and William D. Glaser. Bailey and Wyche were graduates of a Maritime college and already had their third mates' license. Glaser had a regular college degree, thus having to make 365 trips a year to get sea time.

In 1993, another dispute between the Pilot's Association and the apprentices ended up in a complete change in the apprenticeship system. An apprentice with a Maritime License would serve three years. All others would serve four years. All apprentices would receive the following salary:

1st year $14,000
2nd year $16,000
3rd year $18,000
4th year $18,000

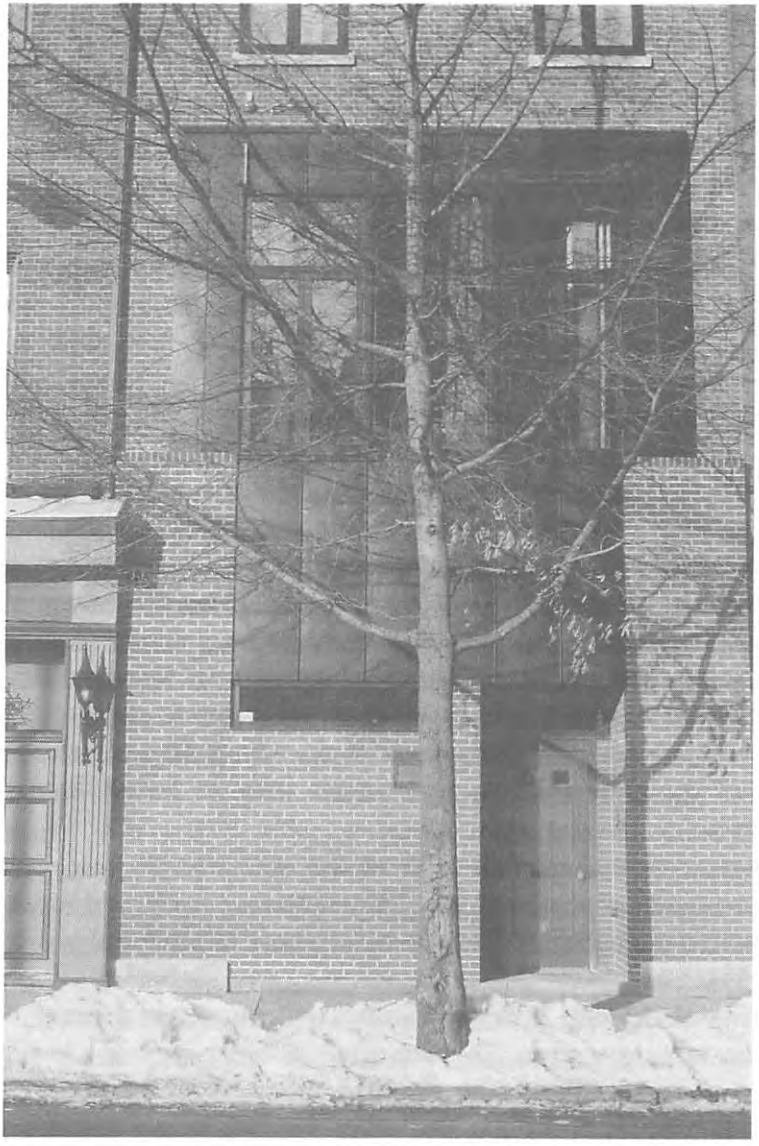
In 1995, Colleen L. Moran, the first female apprentice, was taken. The number of apprentices changes from time to time. In 1896 there were ten. In 1957 there were thirty apprentices. In 1964 there were fourteen and in 1996 there were sixteen.

1942 TO 1995

In December 1942, The Pilot Association for the Bay and River Delaware was drafted into the United States Coast Guard. Basically the pilot business operated the same as before the war. However, uniforms were required and apprentices were paid according to rank. Capt. D. A. Potter pointed out that a pilot was in the Coast Guard until he took charge of the ship, then he was on his own as far as liability was concerned.

Another change at this time of the war was the use of motor launches instead of rowing skiffs. Ships were in convoy and rowing was not effective enough. Some of the older pilots felt that the government forced the change.

After World War II things tried to return to normal but the world would never be the same. The war affected every way of life including the pilot business. Older ships that had survived the war, and the new ships that were built for the war effort, including the C Class Cargo ships, the *Victory* and the *Liberty*, were being replaced in the early fifties by much larger ships. Radar and the gyro compass were being found on more and more ships enabling them to keep moving in poor visibility. However, this put more pressure on the pilot.



Pilot Association Office in Philadelphia at 214 South 11th Street

In 1955 The Pilot Association for the Bay and River Delaware moved into its new office and living quarters at 214 South Eleventh Street from 322 Chestnut Street. This is our present office. The building was previously a small hotel with a devious past (so the story goes). Some rooms were rented by the hour! The pilots would have a good laugh when an old client would try to rent a room for a couple of hours.

Before 1955 there were two clubs, the Jersey Club and the Delaware Club. The pilots from Philadelphia would go home to sleep. According to D. A. Potter when a pilot arrived in Philadelphia he would get a room in a hotel. Once there was a convention in Philadelphia and there were no rooms available. It was for this reason that the pilots got together and formed the two clubs. A new pilot could be blackballed if the current members did not want him. When an apprentice was making a trip with a pilot he could be a guest of the pilot and stay at the club. Each member was responsible for a share of the cost to maintain the club. There also was a small office there for business.

In 1957 the first steel pilot launch *Brandywine* came into service. It was built by Gladding & Hern of Somerset, Massachusetts, at a cost of $45,000. Today a launch can cost as much as $400,000. Before the *Brandywine* was built, wooden boats were used. The stress of going along the side of big ships in rough weather was too much. The launches were constantly being repaired. The steel launch was in a much better position to cope with this.

In 1957 the Pilot Association piloted 1607 ships during the month of August, a record which still stands today. There were only fifty-seven pilots working.

In 1960 the first portable VHF radio in the United States was put into service thanks to the electronic background of Capt. Paul L. Ives, Jr. A charge of $3.00 was made to each ship to help defray the cost. When the radio first came out it had only one channel which was #13.

In the early sixties the Sealand Corporation introduced the Container. The container would change the general cargo industry forever. General cargo would be put into a container, placed on the ship and shipped to the next point. At first this new method of handling cargo was met with skepticism. Most ships were not designed to handle the container. However, soon the advantages were obvious. There was faster loading and discharging, pilferage was almost eliminated and the

weather was no longer a factor with the exception of high winds. The container was a success and is here to stay. The most obvious change was the size. Container ships are very large—to make them cost effective.

In 1963 on June 12th at 1500 hours, the army dock at Fort Miles caught fire, probably from a cigarette. There were two service vehicles on the dock at the time of the fire. According to Robert Yost, our port engineer, an 0 ring on the new fire truck was not in place and because of this it was unable to pump water. Consequently the fire fighters were unable to put out the fire. The dock was almost totally destroyed.

The army dock was the pilot's link to land. Pilot Boat supplies, fuel, water, food and even crew changes (made every Wednesday) took place on this dock. Pilots coming and going on the pilot boat would land there. Because of its great importance to the pilot business a catwalk was built out to the end of the pier so pilots could get to the Pilot Boat *Philadelphia* or the launches. A fuel and water line were also laid out to the end of the pier.

In 1963 the Pilot Association completely rebuilt the old Breakwater lighthouse. The lighthouse was used only in emergencies or when the Pilot Boat *Philadelphia* went to the shipyard which was always in the summer because of the weather's being favorable.

In 1964 all pilots had to obtain a radar license in order to get their federal license.

In 1974 the Keough Pension Plan went into effect. Until that time, the pension came from present day earnings without a reserve fund. After thirty years' service a retired pilot would get 30 percent of a first class pilot's pay. One percent per year was added for each additional year worked up until forty years of service. This was the maximum a retired pilot could receive. With the Keough system there was a debit of $50 per year every year until age sixty. After age sixty there was no debit. In November 1995 the debit system was done away with. Now, in 1996, a pilot gets credit for years worked plus his Keough.

In 1976 on July 1st the pilots went off the old one-half foot draft charge method of payment to a newer and fairer way of charging the pilotage rate. The new method was called the unit charge method which takes the length, beam and the molded depth and puts them into a formula. A unit charge is made to each ship according to its size.

Some major problems were developing for the Pilot Association. Fort Miles was given to the state of Delaware in 1964. The state had

new plans for the army dock and the pilot boat landing there was not one of them. The Pilot Boat *Philadelphia* was getting old, having been built in 1934. Even if a new pilot boat were built there was still the problem of where to go for fuel, water, etc. What was to be done with waste water and trash? All of these problems were brought to a head in 1978.

This was the year a strike between the Pilot Association ,and the hired crew members belonging to local union 333 took place.

The Pilot Boat would tie up to a mooring buoy just inside the outer breakwater where a good lee was provided from a bad storm and also would tie up here when business was slow. The strikers had a picket boat and would attempt to cut the mooring line. If they were successful on a southwest wind there might not be time to get the engines started before the Pilot Boat went up on the rocks. This would be disastrous.

There was only one thing to do—go ashore. Under the leadership of President Joseph W. Guilday the Pilot Association went to Fisher Fertilizer Products, Inc. Factory in Lewes (the old Smith Fish Factory) to rent a dock for the sum of $3,000 a month. The big question—could the pilots work from a landbased station? I personally believe it would have been very difficult to operate without the assistance of the Philadelphia Maritime Exchange Tower based at the point of Cape Henlopen.

The Philadelphia Maritime operated a recording station in one of the old costal defense towers used in World War II. Their job was to report all shipping activity in and out of the Delaware Capes. This was a strategic location. From this location all shipping could be observed except during poor visibility. The Association upgraded the electronic equipment including the radar and VHF radios. The Association put a man on the tower along with the Maritime personnel. It worked out after some "bugs" were ironed out. A permanent land station was feasible!

Negotiations to purchase land got under way immediately. An attempt with a Mr. Goldstein, who had purchased the old Smith Fish Factory in Lewes, failed. Soon after, an opportunity surfaced between the United States Coast Guard and the University of Delaware. An arrangement between the University of Delaware and The Delaware Bay and River Pilot Association was reached.

The Philadelphia Maritime Exchange Tower based at the point of Cape Henlopen.

New Pilot Station in Lewes.

The Association donated $650,000 to the University of Delaware and the University erected a building named The John Penrose Virden Center (named after the first president of The Pilot Association).

The University of Delaware then gave the Pilot Association the old Coast Guard Station, which became our land based headquarters.

In 1964 the Cape May Lewes Ferry Service began. The ferry had to build a breakwater for the protection of its ferry boats. This likewise provided a protected harbor for the Pilot Boats which docked next to the ferry docks.

In 1979 on July 31st the Pilot Boat *Philadelphia* was moved from Fisher Products Dock to the Army Dock and given to Terry Campus, part of the Delaware Technical & Community College. The Pilot Association no longer had a large Pilot Boat.

It is ironic that the United States Government purchased our first steam pilot boat and the Association purchased our last Pilot Boat from the government.

In 1979 on June 9th the pilots celebrated the opening of the new Pilot Station in Lewes, Delaware.

In 1988 the Association started sending all of its pilots to Port Revel, a world renowned shiphandling school near Grenoble, France. The Pilot Association has a continuing education program and is constantly sending its pilots to school to improve their skills and to keep up with the electronic changes in the Maritime Industry.

In 1995 DGPS, a portable differential navigation system, was put into service. The purpose of the system is to provide a highly accurate position and spread information that will enable the pilot to be more precise and safely navigate a vessel.

In 1995 a new Vessel Traffic System was installed at the Tower.

In 1896 ninety-four pilots united to form the Pilot Association for the Bay and River Delaware. Their goal was to provide a dependable and efficient pilot service to the maritime interest of the Delaware Valley. Many changes have taken place but the seventy-one pilots of 1996 still have the same goal as their forefathers. The pilot business will always be changing so as to keep pace with the maritime industry.

APPENDIX

LIST OF CURRENT WORKING PILOTS
MARCH 1996

DELAWARE

Herbert Barnes, Jr.
Roberts B. Barnes
Richard L. Beebe
A. Judson Bennett
Richard Buckaloo, III
Leroy H. Dennis
J. Alfred Ellis
Duval H. Evans
Charles W. Futcher, III
Walter S. Howard, Jr.
James R. Hukill
John D. Hukill
Ronald L. Jefferson
Carl T. Joseph, Jr.
I. Randall Kenworthy
Laurence B. Knapp, Jr.
Archie W. Lingo
William E. Lowe, III
William E. Lowe, Jr.
Charles F. Macintire
George G. Macintire
John L. Morris
Gerry H. Orton
David A. Potter, Jr.
Eric C. Quick
Lawrence M. Reardon
Stephen A. Roberts
Thomas P. Robinson
James R. Roche
Bradford F. Schell
Joseph H. Selph
Howard M. Teal, Jr.
James R. Van Pelt
G. Edward Wyatt Jr.

APPRENTICES

William H. Buckaloo
J. Stuart Griffin
Carl T. Joseph, III
Daniel E. MacElrevey
Colleen L. Moran
Joseph T. Selph

PENNSYLVANIA

James H. Adams
John H. Ahrens
Robert H. Anderson
Robert W. Bailey, Jr.
Wayne E. Bailey
Joseph F. Bradley
Daniel W. Cluff, Jr.
Thomas L. Cluff
Robert K. Cook, III
John P. Cuff
Edward A. Davis
Earl G. Eggers, Jr.
William D. Glaser
Joseph W. Guilday
J. Ward Guilday
John A. Haggerty
William E. Haggerty
Gary G. Harper
Henry E. Hess
John H. Howard
Paul Lane Ives, Jr.
James C. Johnson
Robert D. Johnson
Wallace R. Jones
Charles W. Kenworthy
Michael E. Knapp
Michael J. Linton
G. Stevens Lyshon, III
James G. Maloney, Jr.
E. J. McGuiness, Jr.
Theodore L. Parish
D. Scott Peck, Jr.
William T. Poulterer, III
Carson B. Smith
David A. Souder
Howard Souder
Howard B. Wyche

APPRENTICES

Patrick C. Beebe
Dennis S. Cluff
Patrick G. Conroy
Chris P. Guilday
Drew J. Hodgens
J. David Johnson
Jonathan C. Kemmerly
Robert C. Millington
Ralph S. Schellenger
Kelly J. Sparks

RETIRED LIVING PILOTS
DECEMBER 31, 1995

Robert W. Bailey, S.	Pennsylvania
Walter L. Bennett, Jr.	Delaware
Howard W. Bramhall, Jr.	Delaware
William V. Burton	Delaware
George E. Chambers, Jr.	Delaware
William G. Dorsey	Delaware
Donald M. Douglass, Jr.	Pennsylvania
George S. Douglass	Pennsylvania
Daniel D. Dunlap, Jr.	Pennsylvania
William W. Evans	Delaware
J. William Hocker	Delaware
William S. Ingram, Jr.	Pennsylvania
William T. Ingram. Jr.	Delaware
John P. Joseph	Delaware
Andrew F. Knopp. Jr.	Pennsylvania
Richard A. Lappe	Pennsylvania
Derrick E. Mac Innis	Delaware
Robert G. MacIntire	Delaware
James F. MacIntire	Delaware
T. Rowland Marshall	Delaware
James L. Miller	Pennsylvania
James R. Orton	Delaware
D. Anthony Potter	Delaware
Francis D. Reardon	Delaware
James S. Roberts	Delaware
Harry H. Rowland	Delaware
J. Wright Rowland	Delaware
Holland R. Sayre	Delaware
Curtis K. Schell	Delaware
Samuel M. Schellenger	Pennsylvania
Jack Sparks	Pennsylvania

THE PILOTS ASSOCIATION FOR THE BAY AND RIVER DELAWARE 1989

The year next to the pilot's name indicates the year they became pilots.

T. R. Marshall	1944	W. W. Evans	1947	H. R. Sayre	1947
G. S. Douglass	1954	E. G. Eggers, Jr.	1954	S. M. Schellenger	1954
E. F. Taylor	1956	C. B. Smith	1957	R. W. Bailey, Sr.	1957

D.E.
MAC INNIS

W.T.
INGRAM, JR.

W.G.
DORSEY

W.S.
INGRAM, JR.

R.G.
MACINTIRE

LH.
DENNIS, JR.

R.L.
JEFFERSON

L.M.
REARDON

T.P.
ROBINSON

D. E. MacInnis	1950	W. T. Ingram, Jr.	1950	W. G. Dorsey	1950
W. S. Ingram, Jr.	1954	R. G. Macintire	1955	L. H. Dennis, Jr.	1955
R. L. Jefferson	1957	L. M. Reardon	1957	T. P. Robinson	1957

J.F.
MACINTIRE

J.H.
SELPH

J.W.
HOCKER

D.M.
DOUGLASS, JR.

J.W.
GUILDAY

P.L.
IVES, JR.

J.C.
JOHNSON

D.H.
EVANS

W.S.
HOWARD, JR.

J. F. Macintire	1952	J. H. Selph	1953	J. W. Hocker	1953
D. M. Douglass, Jr.	1955	J. W. Guilday	1955	P. L. Ives, Jr.	1956
J. C. Johnson	1958	D. H. Evans	1958	W. S. Howard, Jr.	1958

F.D.
REARDON

W.V.
BURTON

G.E.
WYATT,JR.

W.E.
LOWE, JR.

G.S.
LYSHON,III

J.R.
VAN PELT

J.G.
MALONEY, JR.

J.F.
BRADLEY

R.H.
ANDERSON

F. D. Reardon	1953	W. V. Burton	1959	G. E. Wyatt, Jr.	1959
W. E. Lowe, Jr.	1956	G. S. Lychon, III	1959	J. R. Van Pelt	1959
J. G. Maloney, Jr.	1959	J. F. Bradley	1959	R. H. Anderson	1960

D.D.
DUNLAP,JR.

H.
SOUDER

L.B.
KNAPP,JR.

J.H.
HOWARD

C.T.
JOSEPH, JR.

G.G.
MACINTIRE

J.
SPARKS

H.E.
HESS

G.G.
HARPER

D. D. Dunlap. Jr.	1959	H. Souder	1959	L. B. Knapp. Jr.	1959
J. H. Howard	1960	C. T. Joseph, Jr.	1960	G. G. Macintire	1960
J. Sparks	1961	H. E. Hess	1962	G. G. Harper	1962

J.S.
ROBERTS

R.B.
BARNES

J.D.
HUKILL

R.D.
JOHNSON

W.R.
JONES

J.A.
HAGGERTY

W.E.
HAGGERTY

D.A.
SOUDER

A.J.
BENNETT

J. S. Roberts	1960	R. B. Barnes	1961	J. D. Hukill	1961
R. D. Johnson	1962	W. R. Jones	1962	J. A. Haggerty	1964
W. E. Haggerty	1966	D. A. Souder	1967	A. J. Bennett	1967

J.H.
AHRENS

A.F.
KNOPP, JR.

D.S.
PECK, JR.

H.
BARNES, JR.

J.L.
MORRIS

J.H.
ADAMS

R.
BUCKALOO, III

T.L.
CLUFF

E.A.
DAVIS

J. H. Ahrens	1961	A. F. Knopp, Jr.	1961	D. S. Peck, Jr.	1961
H. Barnes, Jr.	1964	J. L. Morris	1964	J. H. Adams	1964
R. Buckaloo, III	1968	T. F. Cluff	1968	E. A. Davis	1969

W.T.
POULTERER, III

J.A.
ELLIS, JR.

D.W.
CLUFF, JR.

M.J.
LINTON

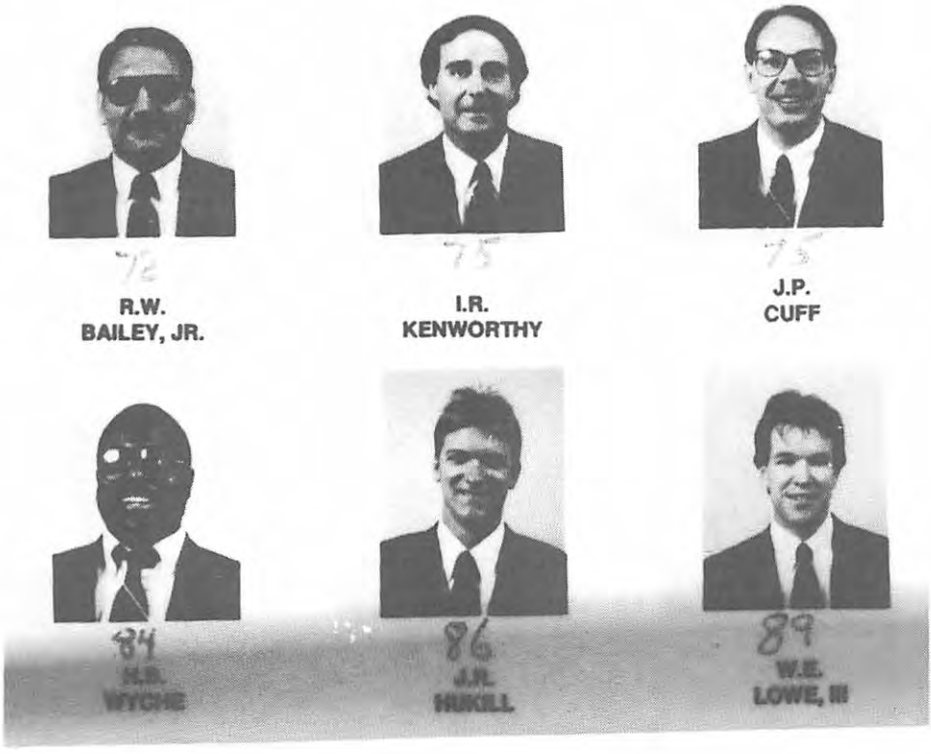
A.W.
LINGO

M.E.
KNAPP

R.L.
BEEBE

C.W.
KENWORTHY, JR.

W. T. Poulterer, III	1961	J. A. Ellis, Jr.	1965	D. W. Cluff, Jr.	1966
M. J. Linton	1964	A. W. Lingo	1970	M. E. Knapp	1970
R. L. Beebe	1970	C. W. Kenworthy, Jr.	1966		



R. W. Bailey, Jr.	1972	I. R. Kenworthy	1975	J. P. Cuff	1975
H. B. Wyche	1984	J. R. Hukill	1986	W. E. Lowe, III	1989

H.M.
TEAL, JR.

E.J.
MC GUINESS, JR.

D.A.
POTTER, JR.

C.F.
MACINTIRE

G.H.
ORTON

S.A.
ROBERTS

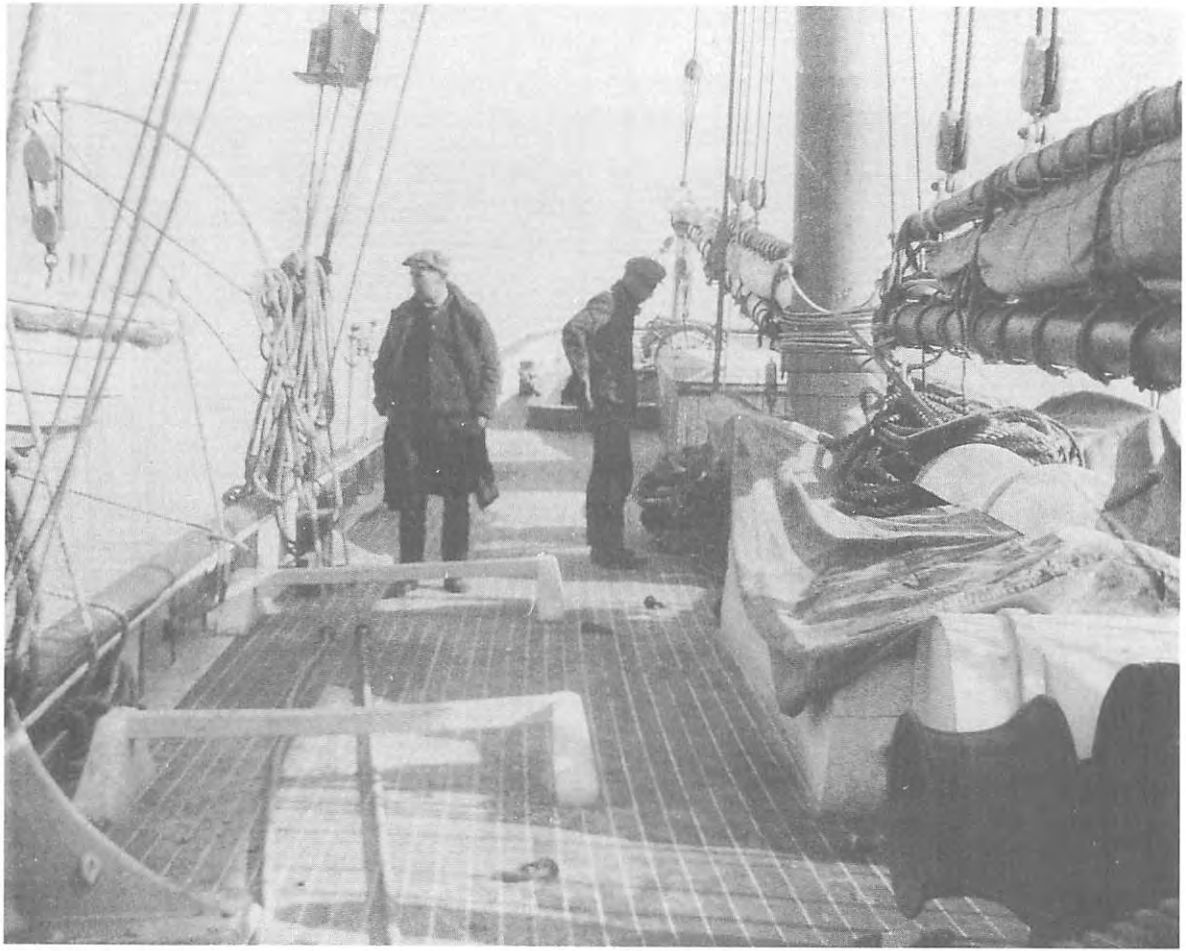
W.E.
BAILEY

W.D.
GLASER

H. M. Teal, Jr.	1971	E. J. McGuiness, Jr.	1975	D. A. Potter, Jr.	1978
C. F. Macintire	1981	G. H. Orton	1984	S. A. Roberts	1984
W. E. Bailey	1984	W. D. Glaser	1984		

THE PILOTS' ASSOCIATION
FOR THE
BAY AND RIVER DELAWARE
1952

Row 1. E. C. Marshall, G. C. Maull, Sr., A. F. Hand, R. W. Schellenger
Row 2. P. Joseph, H. F. MacIntire, T. G. Bennett, D. M. Douglass
Row 3. K. L. Miller, C. L. White, H. D. Lemmon, C. Johnson
Row 4. G. T. Coulter, W. D. Collins, H. V. Rice, D. O. Lingo

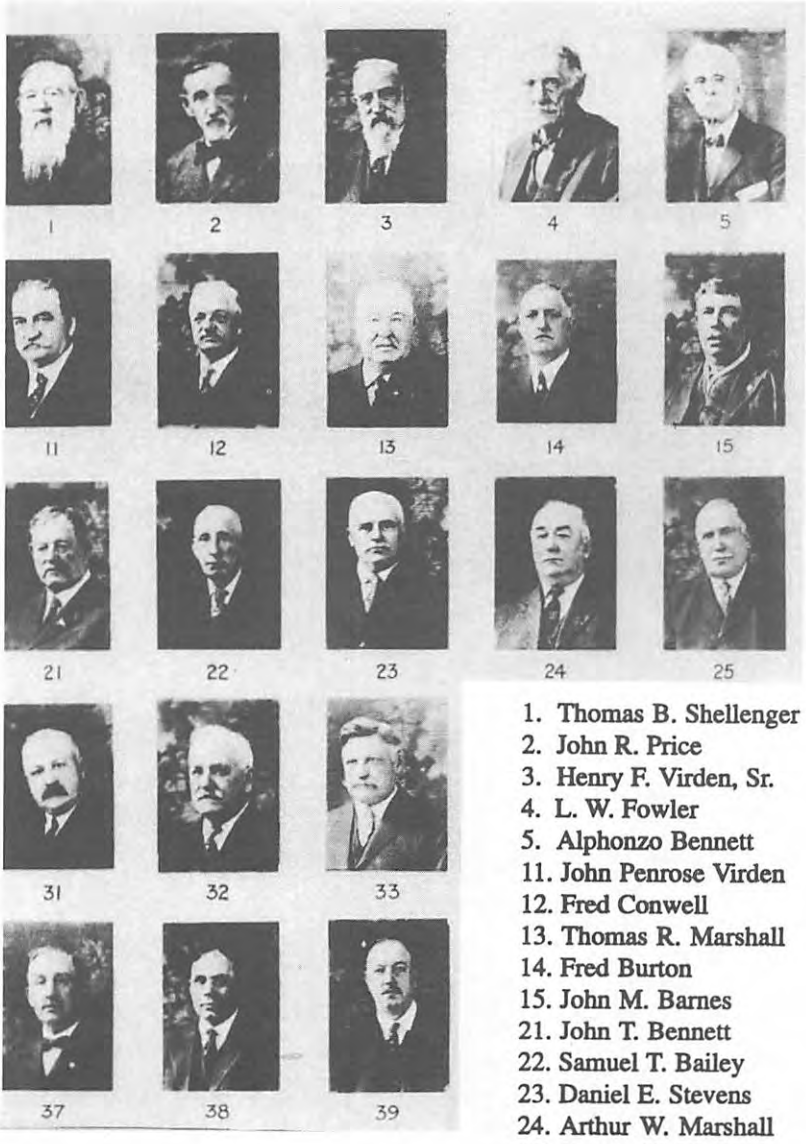


Aboard the Edmunds. Photographed by K. L. Miller.

Row 1. E. C. Kelly, G. E. Chambers, Sr., A. T. Sayre, J. L. Richardson
Row 2. A. W. Marshall, N. H. Evans, J. H. Church, Wm. Teal, Jr.
Row 3. T. R. Ingram, F. C. Maull, E. G. MacIntire, F. M. Campbell
Row 4. L. S. Burton, D. D. Dunlap, L. W. Douglass, D. A. Potter

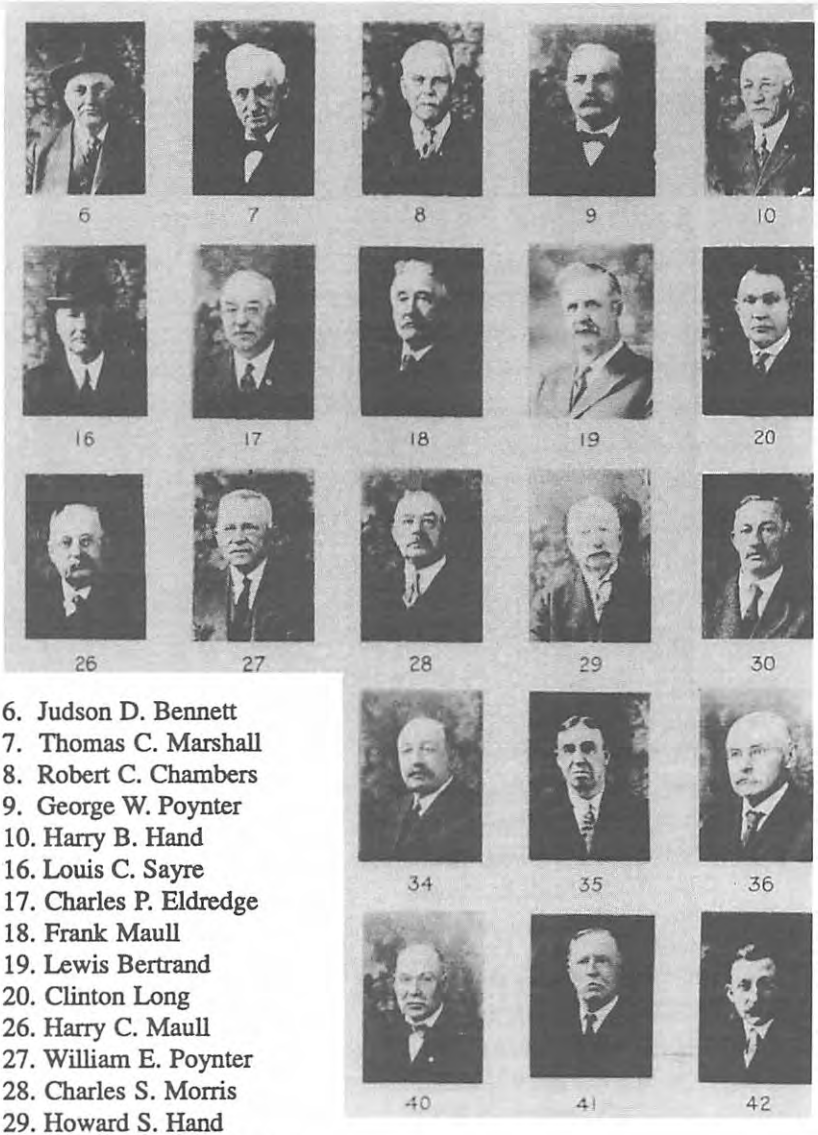
Row 1. E. T. Reed, H. V. Backman, F. L. Taylor, J. C. Cawman
Row 2. E. T. Poole, G. E. Davis, J. P. Johnson, H. H. Rowland
Row 3. T. R. Marshall, J. P. Joseph, G. E. Chambers, Jr., F. I. Walls
Row 4. H. R. Sayre, W. W. Evans, C. K. Schell, S. C. Roberts

Row 1. J. S. Chambers, W. S. Ingram, J. W. Rowland, H. R. Souder
Row 2. G. H. Orton, W. R. Egan, J. M. Richardson, W. L. Bennett
Row 3. G. C. Maull, Jr., R. W. Rutherford, R. C. Foster, J. S. Maull
Row. 4. D. E. MacInnis, W. T. Ingram, J. R. Orton, W. G. Dorsey



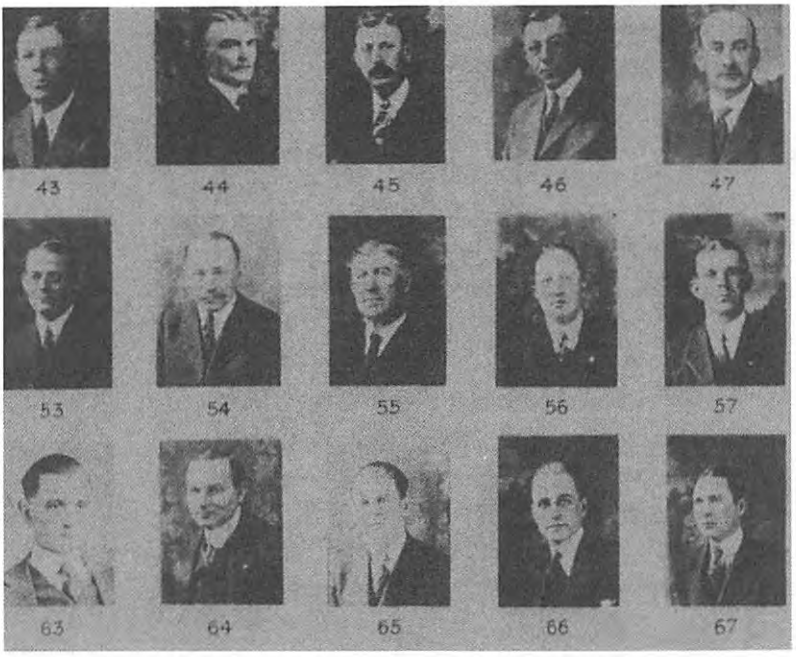
1. Thomas B. Shellenger
2. John R. Price
3. Henry F. Virden, Sr.
4. L. W. Fowler
5. Alphonzo Bennett
11. John Penrose Virden
12. Fred Conwell
13. Thomas R. Marshall
14. Fred Burton
15. John M. Barnes
21. John T. Bennett
22. Samuel T. Bailey
23. Daniel E. Stevens
24. Arthur W. Marshall
25. George H. Wallace
31. William F. Marshall
32. Thomas R. Norman
33. Thomas H. Carpenter
37. John H. H. Kelly
38. John E. Church
39. Harry B. Davis

THE PILOTS' ASSOCIATION



6. Judson D. Bennett
7. Thomas C. Marshall
8. Robert C. Chambers
9. George W. Poynter
10. Harry B. Hand
16. Louis C. Sayre
17. Charles P. Eldredge
18. Frank Maull
19. Lewis Bertrand
20. Clinton Long
26. Harry C. Maull
27. William E. Poynter
28. Charles S. Morris
29. Howard S. Hand
30. William A. Schellenger
34. James R. Kelly
35. Marshall Bertrand
36. Benjamin F. Johnson
40. Harry G. Bennett
41. Jacob Teal
42. Harry V. Lyons

BAY AND RIVER DELAWARE 1918



43. F. L. Lubker
44. John W. Joseph
45. William Farrow, Jr.
46. John E. Maull
47. Thomas J. Virden
53. L. A. Chambers
54. Edward R. Messick
55. James K. Rowland
56. Christopher Bachman
57. Harry W. Chambers
63. Arthur F. Hand
64. George C. Maull
65. George W. Chambers
66. Raymond C. Foster
67. Allyn T. Sayre

48. Arthur W. Conwell
49. H. F. Virden, Jr.
50. Frank Mcintyre
51. George S. Lubker
52. William Teal
58. E. C. Marshall
59. Fred W. Poynter
60. Ralph W. Schellenger
61. Eugene C. Kelly
62. Walter L. Bennett
68. A. C. Rutherford
69. Albert G. Bennett
70. A. S. Ludlam
71. Preston Joseph
72. J. Lyons Richardson

Delaware Bay and River Pilots Association
Officers elected at the forming of the Association
December 1, 1896

John P. Virden, President, 1849 –1934
Robert E. Hughes, Secretary
John B. Merritt, Secretary

Delaware Directors
John S. Rowland
Arthur W. Marshall, Sr.
George L. Chambers
Harry C. Maull

Pennsylvania Directors
Francis S. Eldridge
Albert G. Bennett
Louis C. Sayre
George H. Wallace

Names of the Old Sailing Schooners

Delaware Pilot Boat Schooners		Pennsylvania Pilot Boat Schooners	
Henry C. Cope	No. 1	*William W. Ker*	No. 1
Thomas F. Bayard	No. 2	*E. C. Knigh*	No. 2
Thomas H. Howard	No. 3	*J. Henry Edmunds*	No. 3
Ebe W. Tunnel	No. 4	*John G. Whilldin*	No. 4

The Pilots who formed the Association for the Bay and River Delaware on December 1, 1896.

Lewes Pilots

1. Walter L. Virden
2. George L. Chambers
3. Peter J. Chambers
4. Peter R. Schellenger
5. Delaware W. Conwell
6. John West
7. William S. Edwards, Sr.
8. Louis P. Evans
9. Aaron Marshall (Dover)
10. James W. Marshall
11. Thomas D. Fuller
12. William Maull
13. Thomas B. Schellenger
14. William A Schellenger
15. James Rowland, Jr.
16. Thomas R. Norman
17. Louis Bertrand
18. Robert C. Chambers
19. John H. H. Kelly
20. Harry C. Maull
21. John R. Price
22. Thomas Conner Marshall
23. George W. Poynter
24. Fred Conwell
25. James R. Kelly
26. Clinton Long
27. J. Frank Macintire
28. John W. Joseph
29. Frank Maull
30. Jacob Teal

31. Fred L. Lubker
32. John P. Virden
33. Arthur W. Marshall, Sr.
34. William E. Poynter
35. Charles S. Morris
36. John M. Barnes
37. James K. Rowland
38. Marshall Bertrand
39. Harry V. Lyons
40. Fred Burton
41. William F. Marshall
42. Thomas R. Marshall
43. Thomas H. Carpenter

Cape May Pilots

1. Robert E. Hughes
2. William J. Bennett
3. Samuel L. Schellenger
4. Horatio H. Church
5. Thomas Eldridge
6. Putnam Hughes
7. J. Warren Hughes
8. Jeremiah Eldridge
9. Ellis Eldridge
10. Douglas Gregory
11. Enoch E. Eldridge
12. Horatio E. Church
13. Memucan Hughes
14. James C. Bennett
15. Edward L. Davis
16. John T. Bennett
17. Samuel T. Bailey
18. Charles P. Eldridge
19. Benjamin F. Johnson
20. Louis C. Sayre
21. Francis S. Eldridge
22. Albert G. Bennett
23. Judson D. Bennett
24. Harry B. Hand
25. Daniel E. Stevens
26. Harry G. Bennett

Philadelphia Pilots

1. John S. Rowland
2. John W. Truxton
3. Harry C. Long
4. John B. Merritt
5. Louis C. Wallace
6. Alphonso Bennett
7. Henry F. Virden
8. Howard S. Hand
9. George H. Wallace
10. Louis W. Fowler
11. Wrixon W. Norman
12. James A. Clampitt
13. Samuel West

12-Foot Pilots

Pennsylvania		**Delaware**	
Edward R. Messick	Lewes	Arthur W. Conwell	Lewes
George S. Douglass	Cape May	George S. Lubker	Lewes
Harry B. Davis	Cape May	Thomas J. Virden	Lewes
Norris B. Smith	Cape May	Louis A. Chambers	Lewes

Apprentices

Pennsylvania		**Delaware**	
John E. Maull	Lewes	Harry F. Virden	Philadelphia
John H. Church Sr.	Cape May	William Edwards Jr.	Lewes
Christopher Backman	Cape May	Frank W. Poynter	Lewes
Harry W. Chmabers	Lewes	William Teal	Lewes
		Edwin C. Marshall	Lewes