

'Lange Jaap' Lighthouse, Netherlands

By Elinor DeWire



he Netherlands, a.k.a. Holland, is a small country, hardly bigger than our state of Maryland, but its significance in world affairs counters its diminutive size. Two of the globe's wealthiest and busiest ports bustle with activity at Amsterdam and Rotterdam, and some of the largest marine engineering projects on the planet protect the Dutch coast in the form of dikes, including the massive sea barrier in the Schelde Estuary at Zeeland. Netherlands is rich in maritime history too. Once home to the Dutch East India Company, a group of merchants who opened the Orient to the Western World, it now harbors The Hague, with its Peace Palace and World Court, and is a vanguard nation of diversity, plurality, and personal freedom.

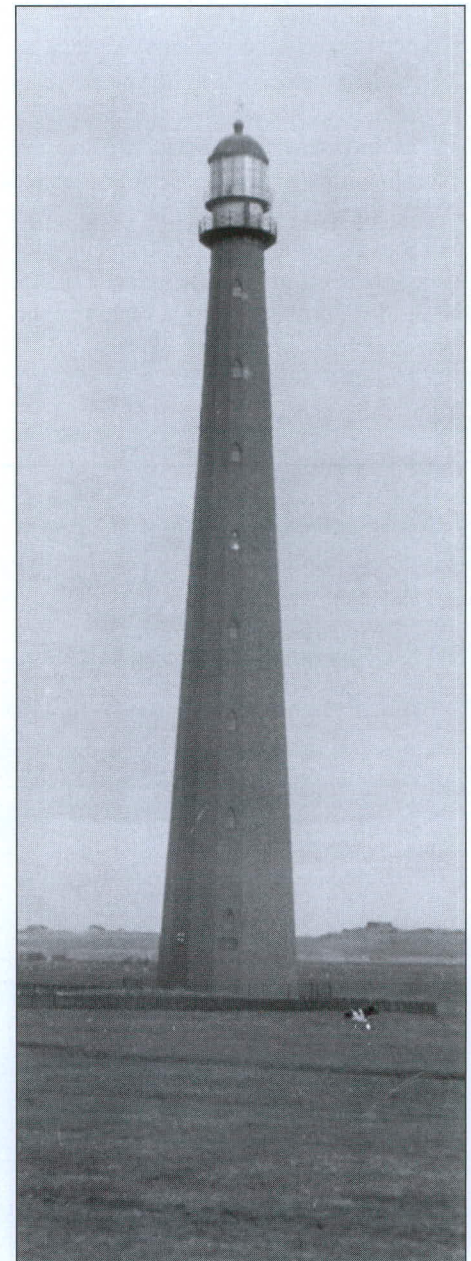
The Dutch way of life also is intimately tied to the sea. Nowhere is this more obvious than Den Helder, home to the Dutch Navy, the large Waddenzee fishing fleet, a shipbuilding enterprise and maritime museum, and site of the beautiful Lange Jaap Lighthouse. This imposing tower sits below sea level behind the massive dike at Huisduinen, a small village on the western outskirts of the city. The

beacon flashes 4 times every 20 seconds and is visible 30 nautical miles. It is a critical aid for vessels moving in and out of the Noordzee (North Sea) and tankers headed to the important Helm Veld (oil field) to the northwest. Because Netherlands is a "low country," much of its coast is riddled with haaks (sandbars). Lange Jaap Light also provides guidance into the great Waddenzee (Mud Sea) separating the states of Noord Holland and Fryslan from the fence of islands to the north.

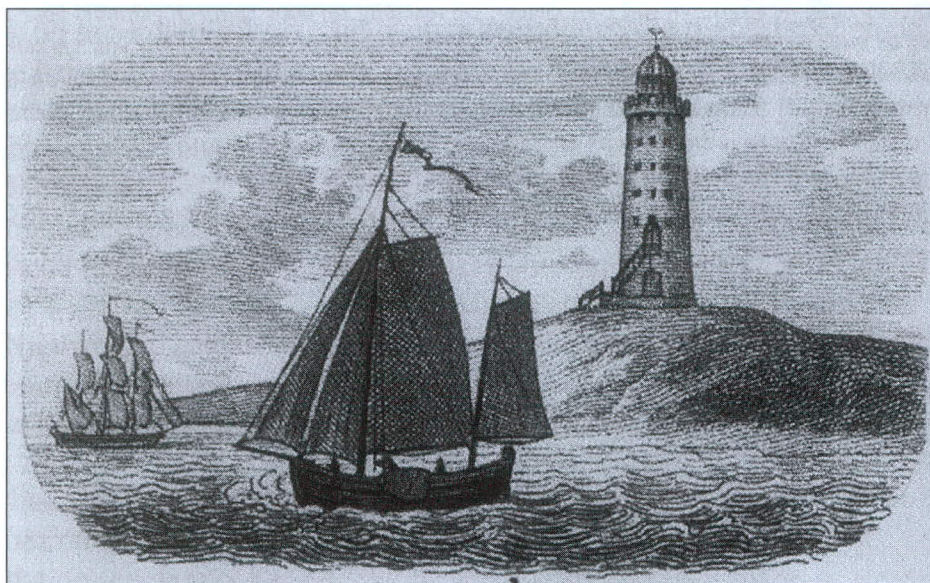
The first lights along this dangerous coast were crude towers that date back to the 15th century and were built under the rule of the dukes of Bourgogne. In 1598, not long after the Dutch war of independence against the oppressive rule of Phillip II, the people of Huisduinen asked for a beacon light to replace a crude fire basket they kept burning on the top of the dunes. Shipwrecks were numerous, particularly in winter, and it was vital to give guidance through the bottleneck between Den Helder and the island of Texel as vessels made their way to the Zuiderzee (South Sea) and south to Amsterdam. Den Helder was then an important maritime village whose name meant "cleaning of ships' hulls." Many ships wintered here and used the town as a staging point.

The somewhat stable dunes belonging to a local farmer named Jan Pieterzoon were

chosen for the 17-meter tall lighthouse. Its brick base supported a wooden tower braced by an iron framework. The lantern held two fire beacons fueled by straw, wood, and coal – whichever was readily available. A barn was constructed nearby to double as a shelter for animals and a storage house for fuel. The twin beacons were lit from August through April to fend off the early darkness at this



An early post card view of Lange Jaap (Kijkduin) in more bucolic times. Courtesy of Michel Forand.



The Kijkduin Lighthouse of 1822 built atop the walls of the fort. Drawing courtesy of Lydia Von der Steen.

high latitude of 53° North. Presumably, Pieterzoon served as the first keeper, but no records survive to verify his employment.

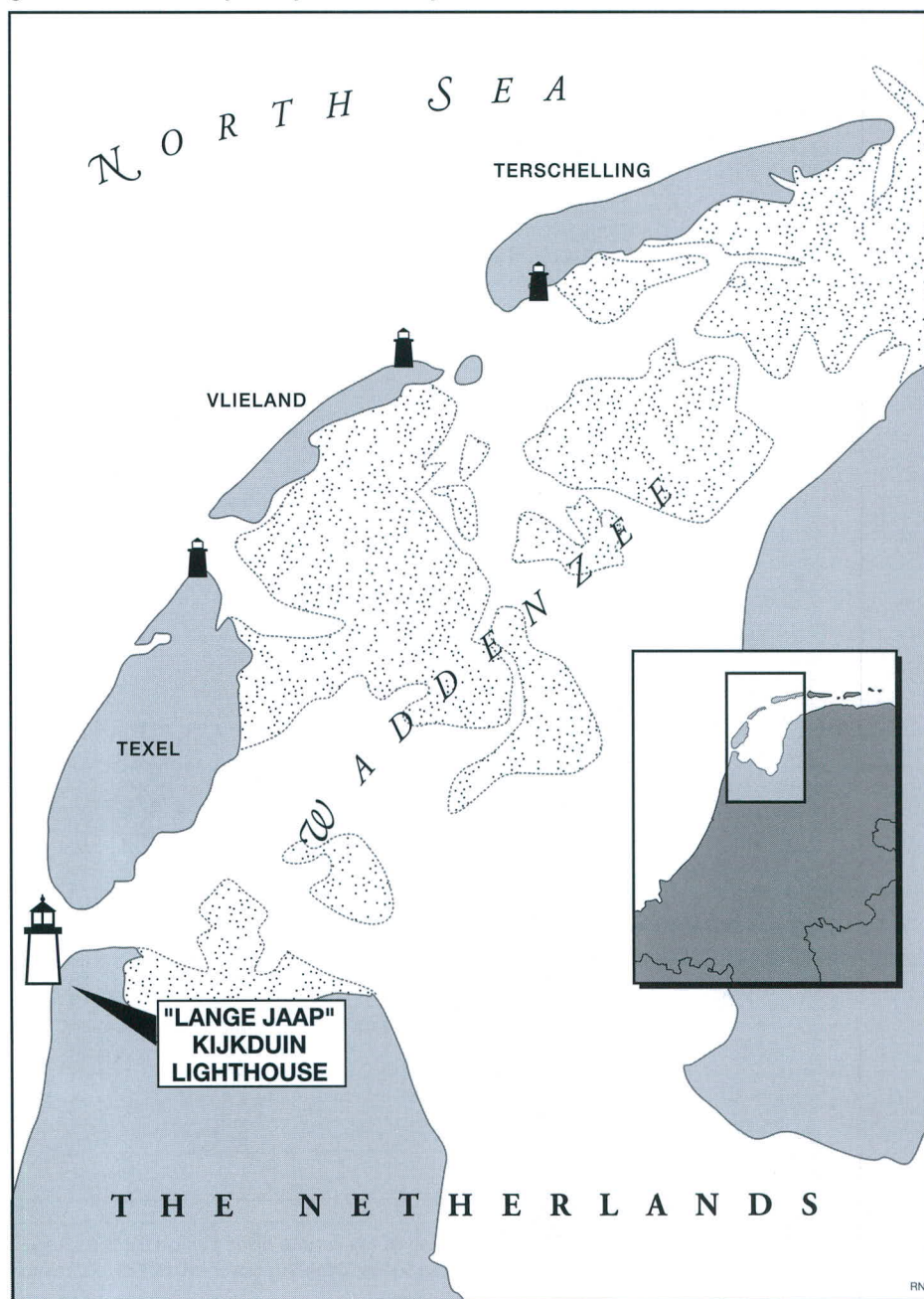
In 1615 the State of Holland took over the lighthouses of the Dutch villages and began providing money for their upkeep. Certainly, repairs and improvements were made to the light at Huisduinen over the next two centuries, but during Napoleon's time many of the lights went dark for lack of money to maintain them. Shipping also lessened, but around Den Helder laborers were employed to build seven forts to ward off English attack, and Napoleon established a large naval base in the village. After Napoleon's defeat, a new lighthouse was built in 1814 at a cost of 1,050 guilders and a man named A. Siebert was hired to keep the beacon. This tower lasted only eight years before it was replaced in 1822 by a lighthouse on top of Fort Kijkduin overlooking the Noordhaaks, a formidable sandbar endangering the entrance to the Waddenzee.

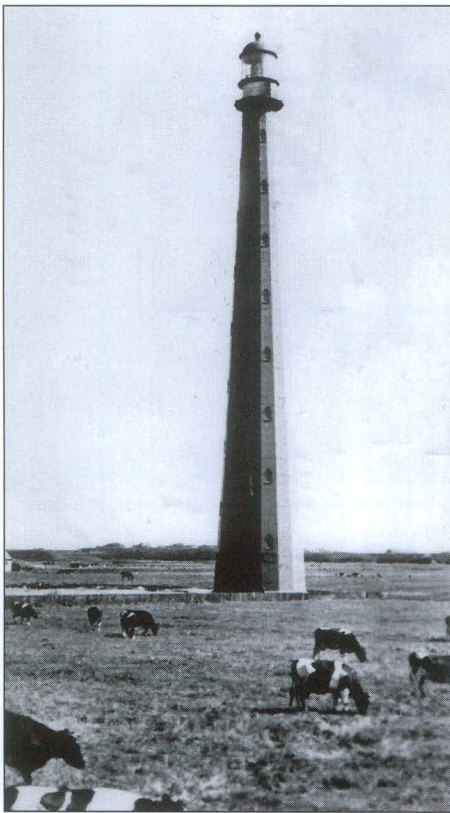
Kijkduin Lighthouse, first illuminated November 4, 1822, was the first large tower at Den Helder, rising some 35-meters and constructed of stone. Its lighting apparatus was based on an English design with 26 Argand lamps and reflectors made in Amsterdam. Rapeseed oil and whale oil were the main fuels. The lantern had 64 tiny windows. Mariners complained the beacon was too feeble for its purpose as a landfall light, so it was raised in height and fitted with a First Order fixed Fresnel lens made by Chance Brothers of England. This sufficed for a time but engineers began to fear the heavy stone tower might collapse into the fort, so plans were made to replace it with a better tower.

The site selected was a meadow 600 meters north of Fort Kijkduin. The foundation was wet and muddy. An engineer named Quirinius Harder, who was the former head of architectural construction for the Dutch Pilotage, designed the new lighthouse. Builders Penn & Bauduin of Dordrecht drove 249 wooden piles into the soggy, sandy loam and covered each one with cowhide to protect it from water. The 16-sided, cast iron tower, weighing over a million kilograms, was waterproofed with 6,000 kilograms of mortar and painted red-brown as a daymark. Some 21,000 screws held it together. Seventeen floors and 283 steps spiraled to the lantern. At 57 meters high, it was (and remains) the tallest cast iron lighthouse

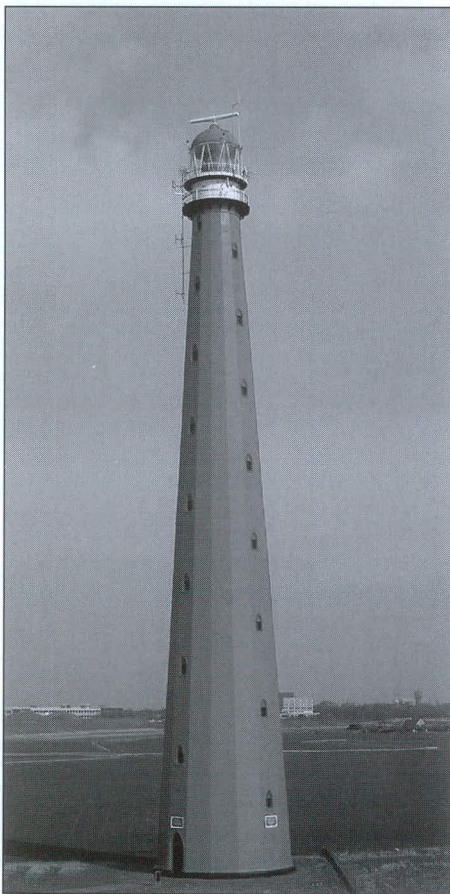


In this view it is easy to see that the lighthouse is below sea level. Note the dike in the background and the water just beyond. Photo by the author.





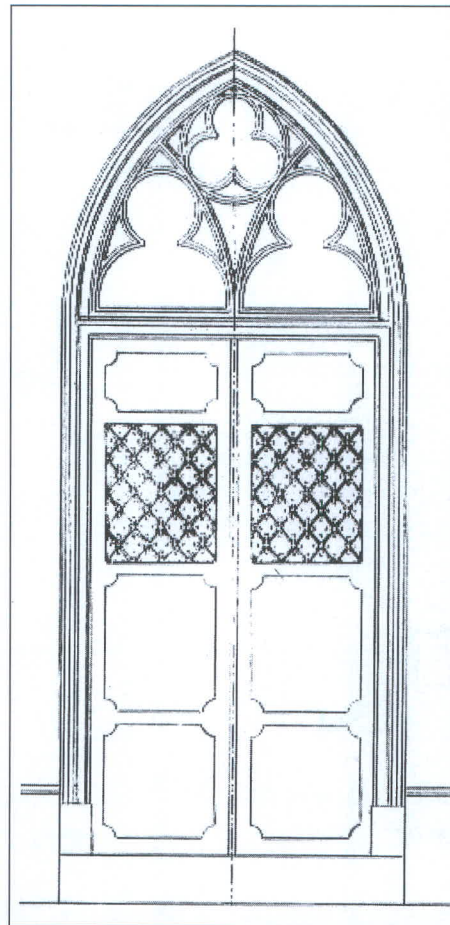
Lange Jaap surrounded by grazing cattle. Note fence around lighthouse to keep the cows out. Old post card courtesy of Michel Forand.



Present day Lange Jaap Lighthouse at Den Helder. Photo by the author.

in the world. The builders were paid 71,200 guilders for their work and the lighthouse was first lit on the night of April 1, 1878. Local citizens promptly nicknamed it Lange Jaap, meaning "Tall John," for a popular tall boy of the village. Nothing is known of its first keeper, but likely he was a local man, possibly a retired fisherman.

Complaints continued, largely due to the intricate navigation needed to make the entrance into the Waddensee at Den Helder. In 1889 a more powerful lamp was installed, and the following year the Haaks Lightship went into service on the Haaksgronden, a major offshore area of sandbanks. The Ministry of Marine (Dutch Navy) administered lighthouses in Holland at this time and the minister in charge in 1897, H.M. van der Wijck, decided an electric light would solve some of the problems at the site. He dispatched a crew to study the situation, and they concluded electrification was impossible at so remote a point. A gas light was installed instead and served until 1903 when a completely new apparatus came into use.



Detail of the ornate door design for the Lange Jaap tower. Drawing courtesy of Fort Kijkduin Museum.

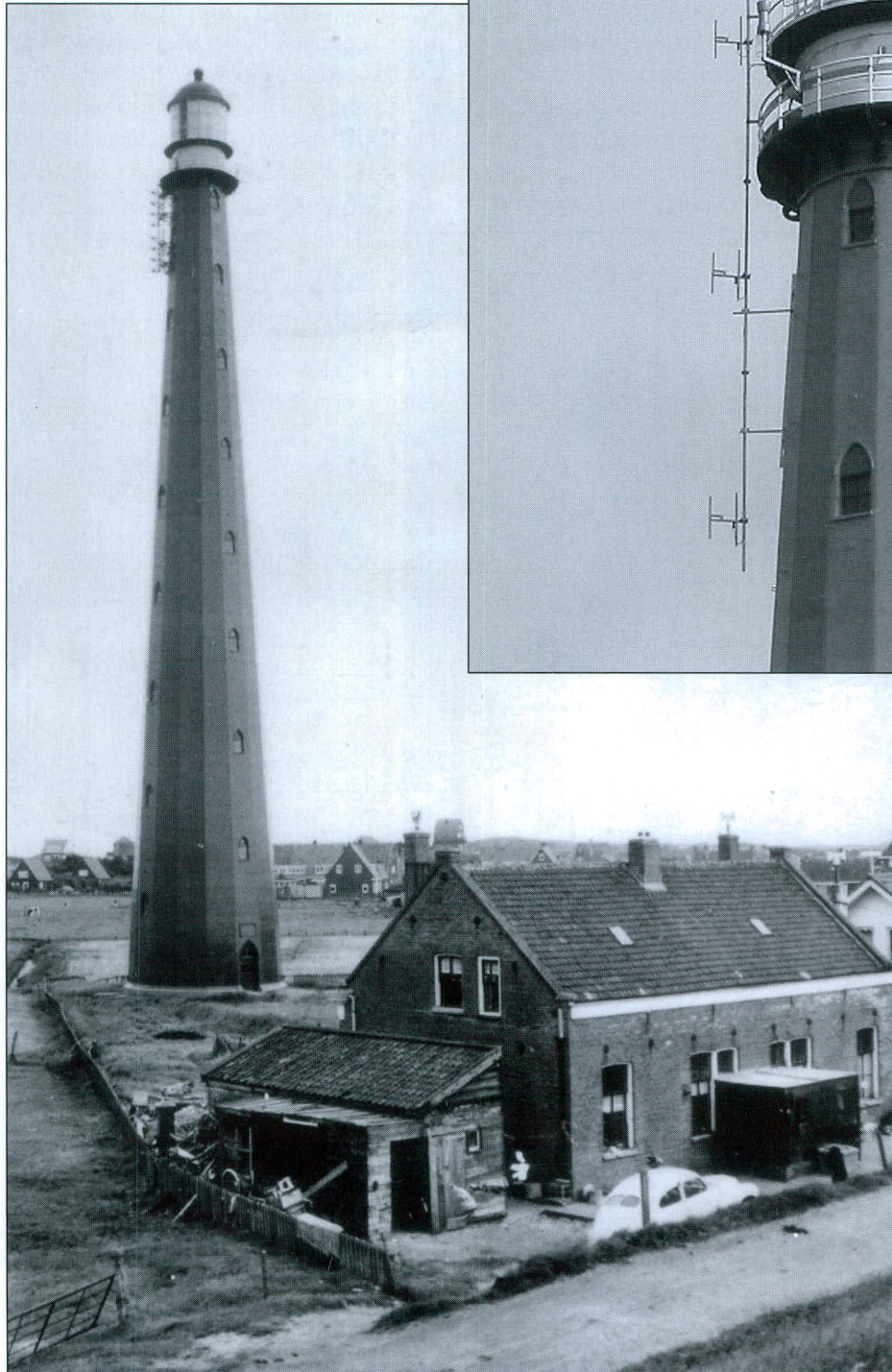
Made by the renowned company of Barbier of Paris at a cost of 66,335 guilders, the new First Order Fresnel lens had two flash panels that gave a double flash every ten seconds. It was supported by a mercury float and rotated by means of clockworks with 3,000 kilogram weights suspended in the tower. A Pharoline gas light using 0.7 liters of fuel per hour was considered one of the best illumination technologies of the day, next to electric lamps. It produced over a million candlepower. In January 1912 an improved gas lamp was installed, and then in 1924 the station finally was electrified with an 80V-50A Brandarislamp of 5 million candlepower. By this time, the huge dike surrounding Den Helder had been built. It protected the area from floods but hid the lower quarter of the tall lighthouse from view at sea. Even so, its beacon shone far out into the North Sea.

The lighthouses of Holland survived World War I with little or no damage, but German occupation in World War II took a toll on the towers. Kijkduin Light was destroyed by the people of Den Helder under order of the Commandant of the Dutch Navy. Several local men climbed the tower and shattered the lens and lamps with axes so that the Germans could not use them to their advantage. In addition, the tower was painted with a camouflage pattern. Later, during the occupation period, the Germans placed "blinder lights" in the tower – beacons that aided the German Navy but with shields to prevent their lights from shining upwards and aiding the British Royal Air Force pilots as they crossed the North Sea.

When the war ended, the red-brown daymark returned and a temporary light was placed on the tower until September 1949 when a new 70V-60A optic of 5.2 million candlepower was installed. Only four years into use it was severely tested during the terrible storm of 1953. Part of the dike at Den Helder was destroyed by the storm surge and many lives were lost as the coast flooded. Kijkduin Light continued to operate, however. Holland suffered its greatest loss in the Zeeland area where thousands drowned and some lights were destroyed. The storm's legacy was the building of the huge storm barrier at Oosterschelde.

Kijkduin Lighthouse was modernized in 1979 with an automatic high pressure mercury vapor lamp, producing a light visible 29 nautical miles. The old mercury float was replaced by bearings to hold the 4 ton optic – largest in

Holland – with its four bullseyes and copper framework. Diesel generators were added for backup in the event of a power failure. The only major optical change since that time was the addition of a larger and stronger steel lantern was built by Voor Fa. Harsveld to replace the 1877 lantern, which now sits on display in the royal dockyard of Willemsoord on the Den Helder waterfront.



Some of the antennas have been added to the tower in this photo. Note the build-up of housing around the lighthouse compared to earlier views, but the building in the foreground has been removed. From a post card courtesy of Michel Forand.



The new steel lantern installed on Lange Jaap in 1992. Note the diagonal astragals and the large array of antennas. The lights above the glass panels illuminate the dome at night to prevent bird strikes. Photo by the author.



Schulpengat Light is a beacon on the corner of the Channel Traffic Control Building beside the fort. It shines a continuous red sector warning ships away from the Noordhaaks sand bar. Note the serious bird "discourager." Photo by the author.

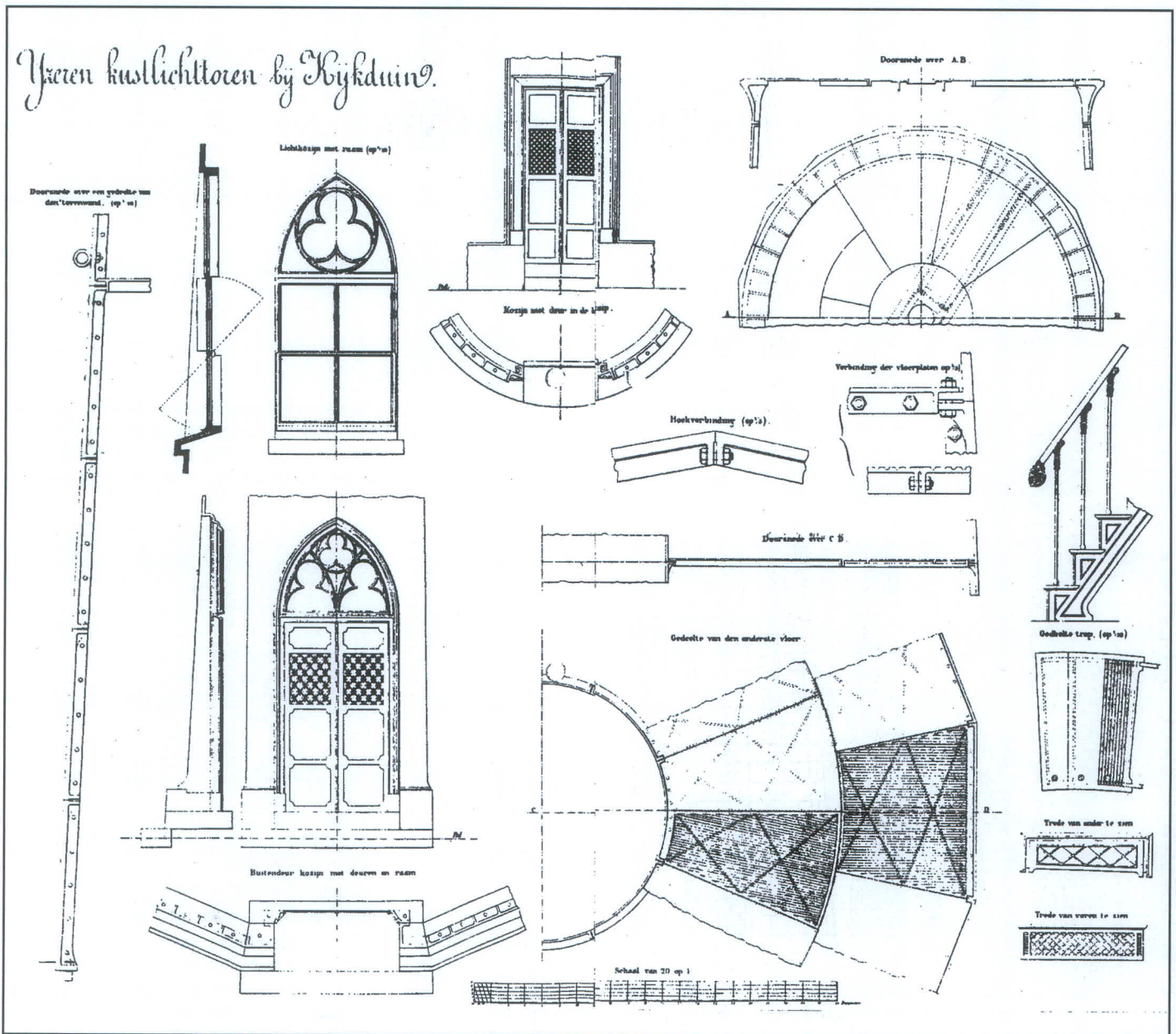
The new 10-ton lantern was inaugurated on December 16, 1992. It has handsome skylights in its cupola that glow at night to deter birds from landing or colliding with the beacon. Since Den Helder sits along a major migratory pathway, birds have always been a problem.

The lighthouse became a Dutch National Monument in 1988. Five years later, the tower was given its present daymark of bright red. The paint was poor, however, and soon faded to pink. It was repainted with a polymer paint that has held up well in the salt air and scouring wind. Also at this time, one of the bearings for the lens broke. A repair crew hoisted the lens off its rollers, replaced the faulty bearing, and then returned the big optic

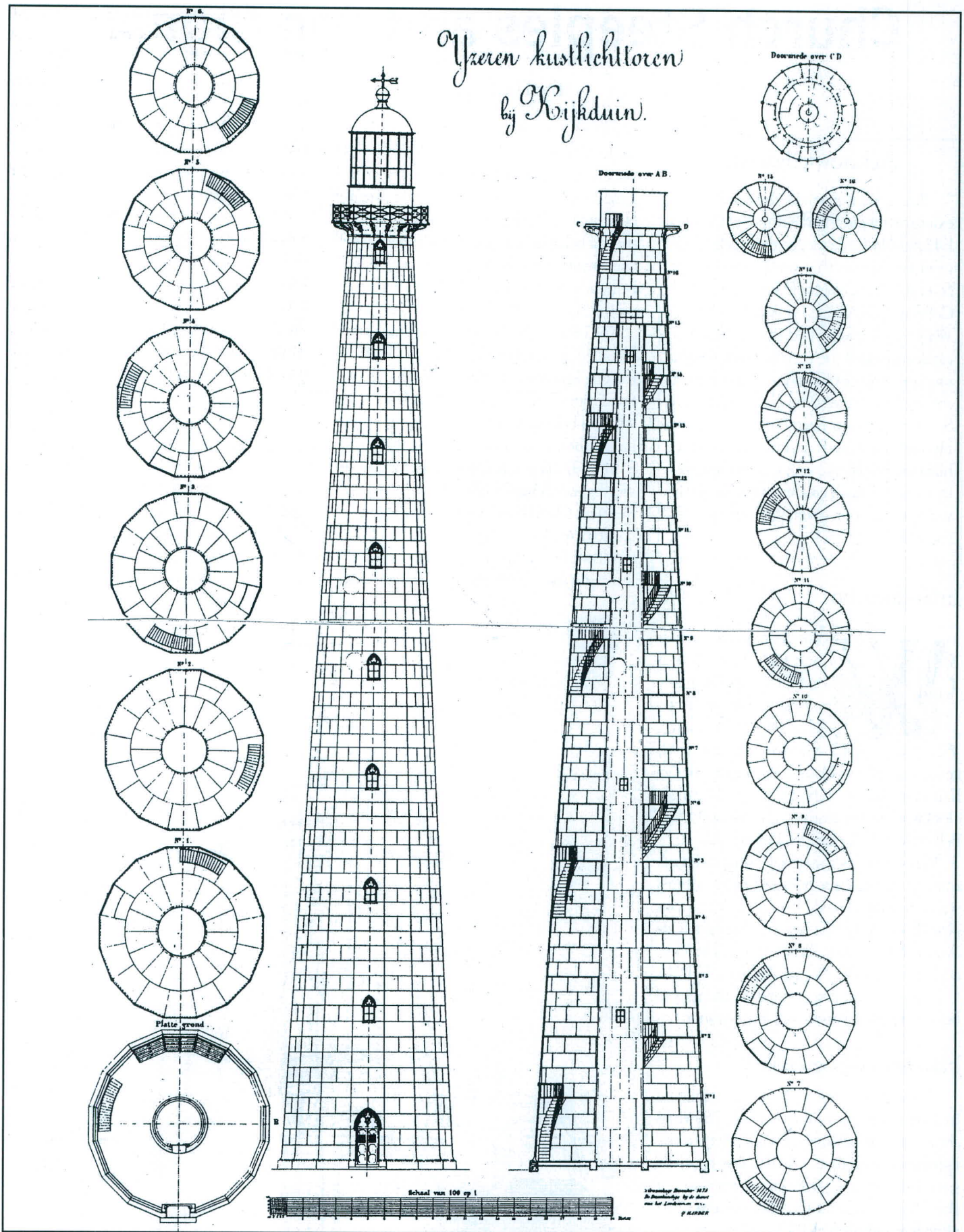
to its proper position. Radar was placed atop the cupola as well and for a time the Dutch Navy had parabolic antennae on the lighthouse for communications purposes. These were removed in 2000.

In 1994 Kijkduin Lighthouse celebrated 400 years of light in Holland, tracing its origin back to the first recorded firebaskets on Dutch shores in 1594. People all over the nation built lighthouse models, and these were displayed in towns throughout Holland. Lighthouses were opened to the public for tours. Kijkduin Light was opened by a local basketball league, and money earned from the tours supported the teams. Old Fort Kijkduin was opened as an aquarium and a museum, including displays about the history of Lange Jaap Lighthouse.

Today, the lighthouse continues its nightly duties, coming on at dusk and extinguishing at dawn. It is operated and maintained by the Dutch Ministre van Verkeer en Waterstaat (Ministry of Transportation and Waterways). Ironically, no fog signal has ever been located here, though the air is sometimes thick. Off-shore buoys do the fog work. The Schulpengat Light, on the square brick channel traffic control tower beside the fort, has marked the Noordhaaks with a red sector since 1948. It shines continuously over the Noordzee shallows between Den Helder and the southern tip of the island of Texel. The retired Texel Lightship No.10 is now a floating museum berthed on the Den Helder waterfront at Oude Rijkswerf "Willemsoord", Weststraat.



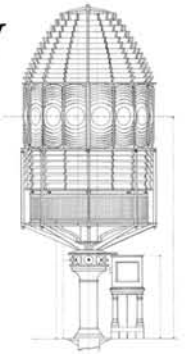
Design details of Kijkduin Lighthouse. Drawing courtesy of Fort Kijkduin Museum.



Plan views and elevation of Kijkduin Lighthouse, the tallest cast iron lighthouse in the world. Drawing courtesy of Fort Kijkduin Museum.



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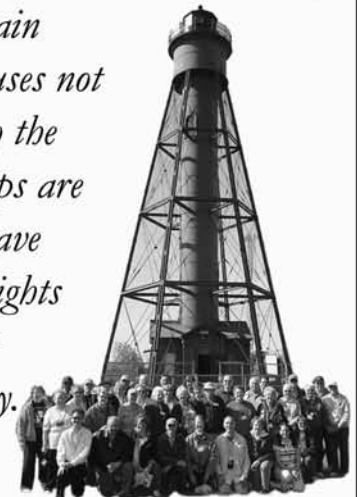
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