

THE TIMEBALL TOWER

The shutter telegraph

The Timeball Tower once stood at the northern end of the Naval Yard by the main entrance gate. The present building was constructed in 1820-1, but the site was originally occupied by a visual shutter telegraph system, built in 1795-6 to allow rapid and essential communication between London and naval ships in The Downs. From Deal, the message was conveyed across Kent to the Admiralty in London, using a relay of twelve shutter stations. A message took about two minutes to reach London via this system, which was incredibly fast in the late 18th and early 19th centuries! In 1805, news of naval victory at Trafalgar and the death of Nelson was brought to Deal by HMS *Pickle* and transmitted using the shutter telegraph system to the Admiralty in London.



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The Timeball Tower and Naval Yard entrance, around the 1860s.

Semaphore communication

The shutter system was abandoned at the end of the Napoleonic Wars. Following construction of the present tower, a semaphore mast operated here from 1821 until 1831. This was another visual signalling system on the chain to Greenwich. Each station used two large rotating arms mounted on a mast, with the message read by telescopic sightings. This was a faster, more versatile and efficient device than the shutter system.

The Timeball

The use of timeballs to disseminate Greenwich Mean Time had begun in Portsmouth in 1829. A few years later, in 1833, the Astronomer Royal, John Pond, set up a timeball at the Royal Observatory in Greenwich. This gave time to ships in the Thames. In 1849, Charles Shepherd patented a new form of electric clock. Its potential prompted Pond's successor, George Airy, to enter discussions with the South Eastern Railway Company about distributing Greenwich Mean Time more widely via the railway telegraph network. Deal, with The Downs an important



Credit: Colin Varrall

The Timeball Tower and bandstand, early 1920s.

harbouring area, was one of the first new sites. The old semaphore station, which had been left derelict, became the timeball station in 1853.

In 1855, a copper timeball, mounted on a 4.3 metre (14ft) mast, was installed on top of the old station in Deal. At 12.55pm every day the ball was raised halfway to warn ships to be ready to correct their chronometers (used for determining longitude at sea, to help them navigate). At 12.58pm it was raised to the top of the shaft and at 1pm an electric signal was sent from Greenwich to all timeballs in England, synchronizing their drops. This time signal allowed ships anchored in The Downs to set their chronometers before setting off on long voyages.

Unfortunately, bad weather affected whether the ball could be raised or dropped. It was vulnerable to high winds and ice forming on the mast, or

snow accumulating on the ball itself. During the first weeks of its operation in 1855, the weather was particularly cold and the drop failed for a variety of reasons. In addition, the underground wiring connection between the Royal Observatory



Credit: Colin Varrall

All the custodians lived in the tower with their families. This photograph is of George Cutcher, a retired marine Lieutenant, and his family on the top of the tower. They were the last family to have lived at the Timeball Tower until it closed on 25th February 1927.

at Greenwich and the Deal Timeball Tower was not insulated. This resulted in a weak signal strength or sometimes a complete loss of signal.

When the Naval Yard at Deal was sold in 1864 for housing, the Timeball Tower was excluded from the sale and it was placed under the care of the Astronomer Royal. The advent of the wireless made the timeball obsolete and it ceased official operation in 1927.

Hovelling

The trade of 'hovelling' began around 1580, to sweep up anchors lost in The Downs. It was important to keep the stretch of water clear of obstacles to prevent loss of life. The anchor outside the museum is typical of many that would have been found. From 1607, the navy paid £30 a year to the 'hovellers' to keep the service going.

The Timeball Tower Museum

The building and timeball mechanism were restored in 1985 as a museum. Today, the timeball is programmed to drop every day at 1pm. During April to the end of September (and on some public holidays) the ball drops hourly between 9am to 5pm. The timeball also drops at midnight on New Year's Eve. The Timeball Tower Museum is run by volunteers and is open to the public regularly throughout the year. It has many interesting artefacts and models. Please check the website for details.

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Credit: Dover Museum, d03319

The Timeball Tower and signal station by JL Roget, around 1880. The Port Arms pub can be seen just to the right of the Timeball Tower. The shipping and insurance company Lloyds of London set up the first signal station in Deal in 1852. By 1891 there were 40 stations in the UK and 118 abroad.



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The Timeball and mechanism laid out on the ground in front of the tower, during restorations in 1985.



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