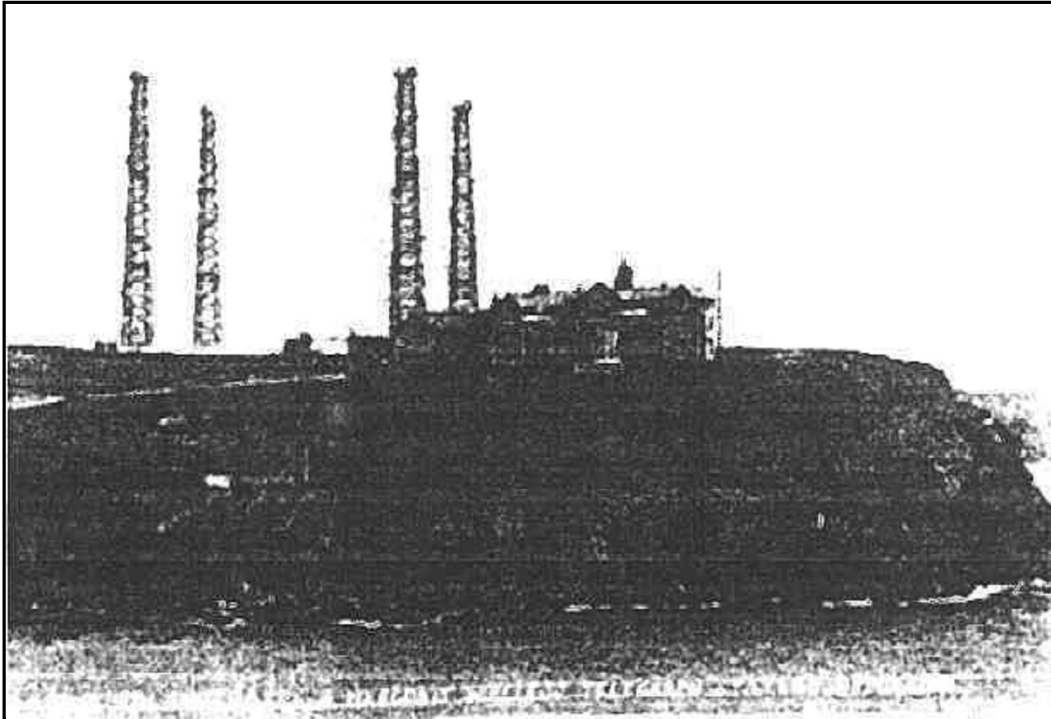


SUPPLEMENT TO HISTELEC NEWS NO.3 SEPTEMBER 1996

Marconi - the Father of Radio

by Barrie Phillips

Wireless enthusiasts and technical historians have much to celebrate this year, it being the centenary of Marconi's first demonstration of the phenomenon of Radio transmission.



Having failed to convince his native Italian Ministry of Posts and Telegraph of the potential benefits of wireless telegraphy, Marconi looked to Britain, then the Worlds leading naval power and having the Worlds largest merchant fleet, to share his dream.

It was on February 2nd 1896 that Guglielmo Marconi, then aged only 22, from Pontecchio near Bologna, came to London to live and work. His Irish born mother, Annie, accompanied him and her nephew Col. H. Jameson-Davis, helped them find accommodation in Hereford Road, Bayswater, London. Marconi's mother was a granddaughter of John Jameson, who had emigrated from Scotland in 1780 and founded the Jameson Irish Whisky Distillery in Dublin. Despite being considered the black sheep of the family (by marrying a foreign silk merchant from Bologna) Annie had made several "duty" visits home. When 5 year old Guglielmo accompanied her on one such visit, he even attended school at Rugby for a while.

On arrival in London in 1896, Marconi quickly got to work and, early in May of that year, gave the first of his many demonstrations: transmitting from the GPO across the Thames Embankment. On the 13th May he demonstrated his system to Army, Navy and Post Office officials on Salisbury Plain and on 2nd June lodged his application for Hertzian Wave Telegraphy, Patent No. 12039. This dictated the direction and pace of developments in long range communications.

Next year, in May 1897, extensive trials were carried out from Lavernock Point, near Cardiff, to Flat Holme Island in the Bristol Channel with the active encouragement of the Mr. William Preece (later Sir), Engineer-in-Chief of the Post Office. (Preece had been previously Consultant to Bristol Corporation Electricity Department between 1883 and 1893). The Post Office engineers, including George Kemp, who kept a diary of these events, had been experimenting at Lavernock Point and Marconi's equipment was used in conjunction with that of the P.O. The tests were so successful over the 3.3 mile stretch that it was decided to remove the receiving equipment from Flat Holme and transfer it to Brean Down, near Weston-s-Mare, covering a distance of some 10 miles from Lavernock Point. Following these successful trials, Marconi vested his patent rights in the Wireless Telegraph and Signal Company, which unfortunately prevented any further co-operation with the Post Office engineers.

Whilst purists may wish to share Marconi's glory with other scientists, such as Joseph Henry, Lord Kelvin, James Clark Maxwell, Heinrich Hertz, Professor Oliver Lodge, Ernest Rutherford and even the Russian Admiral Popov, it was Marconi, who possessed the essential combination of enthusiasm, timing and business acumen. He also possessed the backing of friends and family that allowed him to develop wireless telegraphy into a commercial viable system.

Later his concept of providing a communications package of fixed land stations spanning the globe, together with the provision of the Marconi on-ship equipment and the trained staff to maintain and operate it, survived to the advent of the geo-stationary satellite.

The West Country has played host to many of Marconi's early experiments and several buildings and remains are to be seen and savoured by the Industrial Archaeologist, inquiring traveller and walker alike. The recently restored folly, Haldon Belvedere, built overlooking Exeter in the late 17th Century, is a bizarre three sided castle, from which Marconi carried out some early experiments. In October 1900, Marconi visited Cornwall and selected a site at Poldhu near Mullion for a large station.

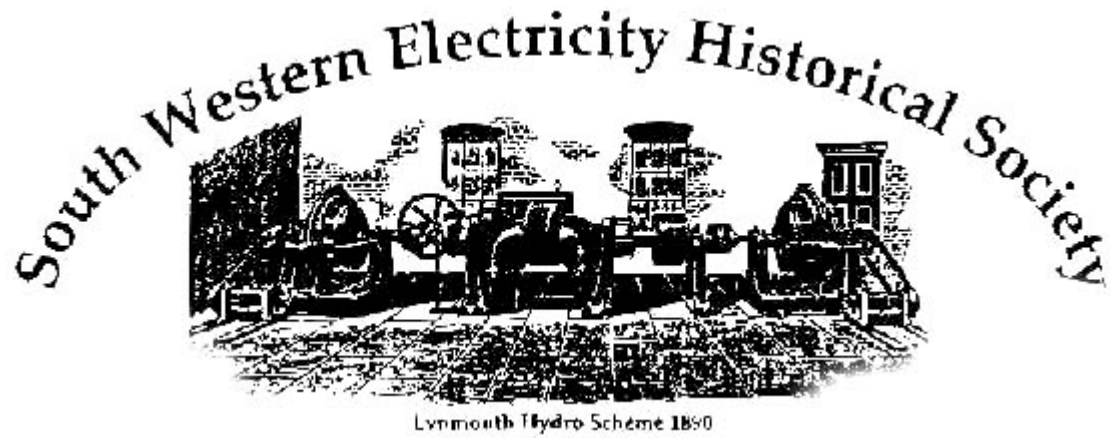
(as shown in the photograph), whilst his assistants Paget and Kemp, (presumably recruited from the Post Office), erected a station above nearby Housel Bay for transmissions to the Sandrock Hotel, Niton, IOW almost 200 miles distant. Today a delightful walk along the Cliffs at the Lizard from Bass Point to Housel Bay passes a typical weather beaten hut. Pause a while and look for the plaque set in the granite wall, shown in the photograph in the Histelec News, which pays tribute to its past - "Guglielmo Marconi whose pioneer work in wireless telegraphy for the safety of all seafarers was furthered in this building during the first years of the centenary". Perhaps the most famous and most photographed Marconi Telegraph Station was at Poldhu. Contemporary postcards show four latticed towers and a labyrinth of stays and aerials dwarfing the cliff top Poldhu Hotel (now a retirement home!)



On December 12th 1901 the first transatlantic signal, the letter "S", in Morse Code "...", was transmitted from Poldu's 12 kW transmitter and received in Newfoundland using a 150 ft. Kite aerial. Progress was rapid and by the beginning of 1902, some seventy ships were equipped with Marconi Wireless Telegraphy, 25 land stations built and the message transmission rate increased to 25 words per minute. On January 18th 1903, the first direct transatlantic message was sent from President Roosevelt to King Edward VII via Cape Cod and Poldhu.

The benefits of wireless telegraphy were seen by all, when just five days into her maiden voyage. the S.S.Titanic hit an iceberg at 11.40am on 14th April 1912. The ship was equipped with Marconi wireless apparatus and the Chief Wireless Telegraphist sent the CQD distress call (prior to SOS) for over two hours. The Carpathia, which was 70 miles away at the time, heard the call and responded. Whilst over 1500 men, women and children perished, 703 people, who had taken to the boats, were rescued.

The Poldhu Station was closed in 1934 and little now remains apart from the foundations for the transmitter building and masts. However a tall memorial column, surmounted by a globe of the World pays tribute to the pioneering work of Marconi and his colleagues and records the gift of the land by the Marconi Company to the National Trust. Those who need a further excuse to celebrate in 1996 can also raise their glasses to 60 years of high definition television broadcasting and to 20 years of the British Vintage Wireless Society.



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