



100 YEARS

OF THE UK'S LONG-RANGE MARITIME RADIO SERVICE

by **LARRY BENNETT**

(Former Radio Officer at Portishead Radio/GKA)

This year sees 100 years since the British Post Office opened the long-range maritime radio service from a site at Devizes, in Wiltshire. The site, at Morgan's Hill, just outside of the town, was a former army wireless monitoring station and was originally planned to be part of the international Point-to-Point radio network until the outbreak of war in 1914.



GENERAL VIEW OF THE HIGHBRIDGE SITE, 1970S.



THE DEVIZES SITE, 1924.

A network of former Marconi-owned stations were already in operation around the coast of the United Kingdom, but this station was designed for the purpose of communicating with vessels navigating the North Atlantic, especially the large liners on Trans-Atlantic voyages.

The first transmitter (GKU) operated on a wavelength of 2,100 metres, followed shortly by a second transmitter which operated on 2,013 metres. Stability and reliability of the transmitters was, however, a constant problem, combined with breakthrough issues on the receivers, which operated on the same site. A site at Highbridge, near Burnham-on-Sea in Somerset, was identified and purchased by the Post Office in 1924, and

this was to become the receiving station of the service, with Radio Officers at Highbridge being able to key the transmitters operating from Devizes via landline links.

However, technical issues continued to blight the Devizes site, and in 1928 a transmitter site at Portishead, near Bristol was opened, which became known as the famous "Portishead Radio". Devizes continued to operate as an experimental station for short-wave transmissions. These short wave experiments proved extremely successful; communications with ships all over the world were able to take place with lower power transmitters, and these were relocated to the Portishead site when Devizes closed in the early 1930s.



PORTISHEAD TRANSMITTING SITE, 1938.



The 1930s brought a great deal of traffic through the station; not only from the liners and merchant vessels worldwide, but also from the flying boats on the East coast of the USA and the Mediterranean. In addition, the Highbridge site operated a short-range station (Burnham Radio/GRL) which handled traffic in the Bristol Channel area. The history of the call sign GRL is interesting; it was originally allocated to the short-range station at Rosslare, before being transferred to Fishguard, and thence to Highbridge.

A rotating beam aerial system was installed at both the transmitting and receiving sites in order to ensure the best possible reception was available to vessels navigating the North Atlantic. The aerial was mounted on a turntable and was manually rotated using a chain mechanism. Operators at Highbridge would rotate the aerial and the corresponding aerial at the transmitting site would follow.



A SECTION OF THE HIGHBRIDGE OPERATING ROOM, 1938.

The outbreak of WW2 brought many changes to the way the station operated. The station (and all allied vessels) came under the control of the Admiralty, and a naval presence was maintained at the station throughout the war. All messages were broadcast at specified times both through the Portishead and Rugby transmitters, and no acknowledgement of receipt from the vessels was required. It had to be assumed that messages had been successfully received. Vessels were strictly forbidden to use their transmitting equipment unless in a distress situation. To ensure merchant vessels were able to receive these broadcasts, two (and in many cases, three) Radio Officers were employed on each vessel to provide a 24-hour watch facility.

To facilitate ease of communication, the world was divided into 'Areas', each with their own transmitting and receiving facilities, all linked through Admiralty lines, and this became the forerunner of the 'Area Scheme' which continued until the early 1970s. The Highbridge station was also used to train Radio Officers before dispatching them to allied vessels or coast radio stations overseas. Other activities included monitoring transmissions from SoE agents in Europe and North Atlantic patrol aircraft.

After the war, use of the station expanded greatly, and in 1948 a new operations building was constructed. A central 'control room' was built, which housed the 'ship's bureau' of names, call signs and present position/voyage information. Large steel wall maps were constructed showing the 'Areas' and major shipping routes to enable the bureau to plot each vessel's voyage. Vessels were required to advise which Area station they were monitoring so any traffic could be routed to that particular station, as well as voyage and ETA information which would assist in traffic routing.

New receiving aerials were erected, replacing those which had been constructed during the 1920s. These new aerials were of the directional rhombic design, spaced every 15 degrees to give full 360-degree coverage. An omni-directional aerial was also used if required when initially listening for vessels. Each aerial was fed into a switching and amplifying system before being linked to each operating console in the station.

New W/T (Wireless Telegraphy) operating wings were connected to the control room, 2 of which housed 16 operating consoles (A and C Wings), and a third (B Wing) became the broadcast and landline area. Each console was equipped with a Marconi CR100 or CR150 receiver, an aerial selection switch, an Imperial typewriter, an intercom to the control room and search point position, and a transmitter selection switch panel.



CONTROL ROOM SHOWING STEEL WALL MAPS, 1948.

All incoming telegrams would be taken down directly on a telegram form using a typewriter, and the completed form would then be passed down a conveyor belt to the control room, where a messenger would relay it to the landline wing for onward transmission by telex. Some companies leased 'private wire' links to the station to enable messages to be delivered directly to and from the station, and there were also direct lines to the Admiralty, Lloyds of London and the Meteorological Office.

The station was honoured in 1958 by a visit from Her Majesty the Queen, who was given a tour of the station and signed the visitor's book accordingly. Many local residents lined the route to the radio station from Highbridge Railway Station.

ROYAL VISIT, 5TH DECEMBER 1958.





Traffic figures continued to expand, and recruitment continued unabated for many years. The Suez crisis in 1956 brought in much extra traffic, all of which was handled by Morse code. At this time the Radio Telephone service was handled by transmitters at Rugby and a receiving station at Baldock, and vessels requiring to book an R/T had to send a message via Portishead Radio to arrange the time and frequency – and hope that radio propagation conditions would be suitable for a reliable connection.

The development of radiotelex in the 1960s assisted vessels in sending long messages economically, with ships able to send messages directly to the destination, using Portishead as a connection centre. Messages were charged by the minute rather than per word.

As part of a Post Office rationalization in 1970, the Radio Telephone service was transferred to the Highbridge site. Originally only 3 consoles were installed, clearly not enough to handle the amount of R/T traffic. To allow handling of the increased amount of traffic, the former point-to-point station at Somerton, some 25 miles from Highbridge, was used to complement the Highbridge service. Staff were transported to and from Highbridge by minibus each day until the service was transferred to the new operations building in 1982.

As W/T traffic continued to expand, a new operating wing (D Wing) was constructed in 1971 with 12 consoles, mainly operating on 22 MHz. The 'trawler watch' on the GKK frequencies was also operated from this wing, where regular position reports from deep-sea trawlers in the North Atlantic were handled.



W/T OPERATING WING, 1966.

1971 also saw the end of the Royal Naval presence at the station, and with it the end of the popular 'Area Scheme'. Ships had no option but now to communicate directly with Portishead, although a system called the "Pacific Watch" and later renamed the "Sector Watch" was introduced specifically for vessels calling from the Pacific and Asian areas.

The Portishead transmitter site closed in 1978, meaning the service now used transmitters at Rugby, Leafield, Ongar and Dorchester; however, the name 'Portishead Radio' continued to be used until the very end.

The early 1980s saw the station operate the "Ocean Weather Service" where ships stationed at specified locations in the North Atlantic would send regular reports by radio telex to the Meteorological Office

at Bracknell. This service originally operated from a dedicated area at the end of 'A Wing' before it was also relocated to the new station in the early 1980s.

By now was becoming clear that the 1948 version of the station was becoming run down and unfit for purpose, so plans for a modern station using computerised message handling systems were developed. This station would house all the W/T and R/T consoles, a dedicated radiotelex section, plus rooms for landline, broadcasts and management offices. A welfare block had already been constructed, housing a staff restaurant and social club (including a well-used bar area).



A W/T CONSOLE IN THE NEW STATION, 1988.

The new station housed a modern message handling system, based on the Honeywell 606 processor, which had its own air-conditioned room in the station. From-ship messages would be received directly on to a word-processing machine and then edited and sent directly to the addressee without the need for re-typing in the landline room. However, to-ship messages continued to require a degree of manual intervention in order for the format to meet the required criteria.

Radio telex procedures were also modernized, with a semi-automatic system being introduced. This meant that vessels could enter a command and type in the telex number of their choice to be connected to that machine anywhere in the world.

New R/T consoles were also installed, each R/O monitoring either one or two circuits per band.



R/T CONSOLE, 1986.



The existing aerial farm at Highbridge was decommissioned, and the aerials at the Somerton site were linked to Highbridge by microwave. This microwave link also carried the receiver data, meaning that only the receiver front panels would be controlled by the Highbridge staff; the receivers themselves would be located at Somerton.

The old operating wings were subsequently demolished, leaving only the entrance building and the control room remaining from the 1948 reconstruction. These were used for storage and office use.

As satellite communications became more popular, traffic figures at the station began to decline; to try to prolong the terrestrial radio service, an aeronautical radio service was introduced, providing link calls home from air crew and also providing HF links to operations centres worldwide. Large airlines such as British Airways, Virgin Atlantic, Pan-Am and numerous charter airlines all used the station, and Eastern Airlines selected the service to be their European 'hub' station.

Fixed stations also shared the aeronautical frequencies, which provided vital links from remote locations for relief agencies and charities in Africa. This developed into the 'Gateway' service, which also handled personal calls from military units in the Balkans and the Gulf during their conflicts.

Portishead Radio also handled communications for the many high-profile yacht races such as the Whitbread Round The World Yacht Race and the BT Global Challenge, and also ran training courses for yachtsmen unfamiliar with HF R/T working. These proved so popular that the station was the recipient of a Royal Yachting Association trophy in 1995 as a result. In addition, the station handled traffic from Sir Richard Branson's Virgin Balloon and Trans-Atlantic Challenge projects, as well as assisting with communications with Sir Ranulph Fiennes' Arctic expeditions amongst others.

Despite this, traffic figures continued to fall, and staff leaving were not replaced. The station contracted in size during the 1990s, and other BT departments moved into the building. Eventually, the decision was made in 1999 to close the station. The last day of operation would be 30th April 2000.

On that Sunday, hundreds of ex-staff attended the final broadcast at 1200 GMT – Radio Officer Larry Summers broadcast the last R/T transmission, whilst Mike Pearson transmitted the last W/T message. And so ended over 80 years of maritime history. As the audience dispersed, the consoles were dismantled with indecent haste, and the equipment loaded into waiting skips outside of the building.

R/O MIKE PEARSON PREPARING TO SEND THE LAST W/T BROADCAST, 30TH APRIL 2000.



THE DEMOLITION OF THE STATION ENTRANCE BUILDING, 2007.

Many staff were redeployed to other groups within BT, including Airwave and BT Satellite Services, who continued to operate from rooms in the station. However, BT made the decision to sell off the Aeronautical and Maritime service to Stratos of Canada in 2001, and the last Radio Officer left the station later that year.

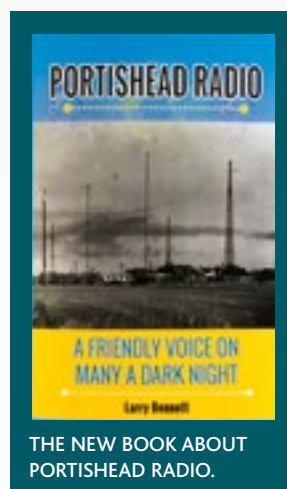
The building continued in use for a further few years for various BT departments before it was sold and demolished in 2007 for a housing development, to be known as "Mulholland Park" – named after former station manager Don Mulholland and his father Robert who worked at the station in the 1920s and 1930s. Although there were initial plans for a commemorative monument to the station (and indeed a nursing home), these were never constructed, and as of today there is nothing left to remind anyone that there was ever a radio station on the site. A token attempt was made to recognise the service by naming the roads in the new estate after radio and electronic pioneers such as Marconi and Tesla, but nothing remains relevant to the actual station.

Ex-staff have been campaigning for some time to have some sort of memorial or plaque erected on the site, and the local MP has offered his support. In the meantime, the station is remembered by a comprehensive website at www.portisheadradio.co.uk, regular staff reunions, and a new book about the history of the station.

Published earlier in 2020, *Portishead Radio – A Friendly Voice on Many a Dark Night* has been selling extremely well, and is available from Amazon and other on-line retailers. A limited number of signed copies can be ordered through the radio station website.

The world's largest and best-remembered maritime radio station was indeed a friendly voice. Many mariners of a certain age look back on the station with fondness, as do the hundreds of Radio Officers who worked there (and indeed their families).

The station has been gone for over 20 years but it is certainly not forgotten. Its place in history is assured. ●



THE NEW BOOK ABOUT PORTISHEAD RADIO.