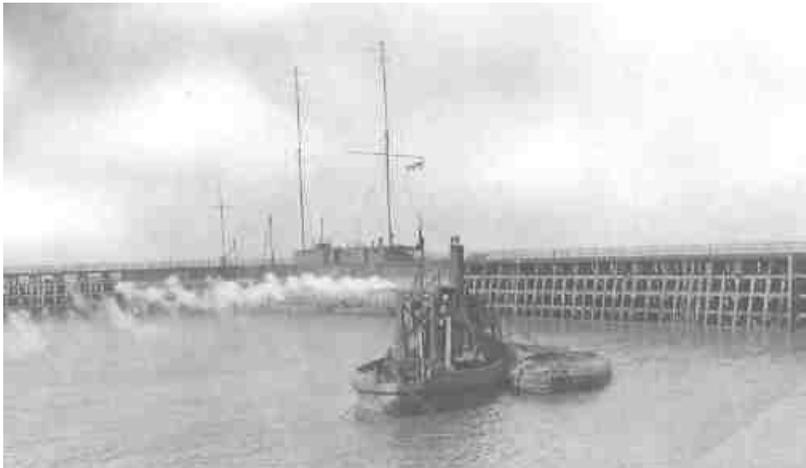




Humber Radio was one of 8 Coast Radio Stations around the UK Coast offering Ship-to-Shore communications in the Medium Frequency (MF) bands on WT, RT and RTT. It was located on the Lincolnshire Coast at Trusthorpe, between Mablethorpe and Sutton on Sea. The service area was nominally the Southern North Sea, though locally based ships tended to work back to GKZ whenever possible. At night, and given the right conditions, we regularly had QSO's out in the Atlantic and down into the Mediterranean. I had the privilege of working there firstly as a Radio Operator and then later as the day-to-day Manager from 1968 until 1995. As well as commercial Telegram and Telephone services, a permanent watch was kept on 500khz and 2182khz, the WT and RT Distress Frequencies on behalf of the UK Coastguard Service. All Distress (SOS), Urgency (XXX) and Safety (TTT) comms traffic was handled by Coast Station people.



The station was originally erected by the Admiralty during the First World War on the West Pier at Grimsby. It was housed in three passenger railway coach bodies placed end to end and equipped with a Navy type 2KW

Spark Transmitter. The receiver was a standard Post Type for the time, with aerial and intermediate tuning by hand operated condensers situated outside of the receiver.

Perhaps the most memorable signal transmitted from Grimsby was this Armistice Signal. It was addressed to the Humber Fishery Protection Section – armed trawlers – patrolling the Southern North Sea. It was transmitted as 4-letter code groups. Among the groups were several which were 'redundant' groups that did not refer to anything, but merely sent to confuse would be code breakers, though it is difficult to understand why a Cease Fire signal needed to be sent in code.

S. 1820c. <small>(Established—May, 1909; Revised—January, 1917)</small>		NAVAL SIGNAL.		P.O. OF WATCH	
FROM Vice Admiral commanding East coast of England		To Humber Fishing Protection Section, Ronso, Scomber, Curass Waldorf Grenade & Duchess		READ BY	sgR
				REPORTED BY	
				PASSED BY	
				LOGGED BY	sgR
				SYSTEM	W/T
				DATE	11-11-18
				TIME	1109
<u>Priority</u>					
Armistice is signed, hostilities to be suspended forthwith, no change is to be made in organization or arrangements until definite instructions are issued by me.					
Submarines on the surface are not to be attacked unless their hostile intentions are obvious					
0959.					

As you can see it went out at the eleventh hour of the eleventh day of the eleventh month 1918.

Station operations were handed over to the Post Office in 1920 and staffed by civilian operators. When Direction Finding came along a few years later, there was no space on the pier for such a system and so a new site free from outside electrical interference was found at Trusthorpe, some 20 miles south of Grimsby.

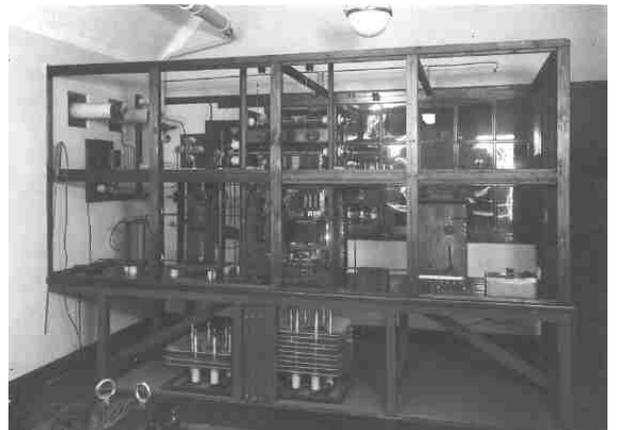


The move took place on December 7th 1927 and the station re-named Humber Radio.

The equipment was state of the art for the time and included something new called 'valve transmitting equipment'. A Bellini-Tosi DF system was fitted, and also the first Radio Telephony (RT) transmitter

at a UK Coast Station for communication with Trawlers. The main Transmit aerial was a 3-wire 'T' type. The Main Receive and DF aerial slung beneath the 'T' consisted of two triangular frames approx 95 feet long at right angles to each other.

The Main WT transmitter was 1 kW, made by the Radio Communication Co Ltd and able to use CW or ICW.



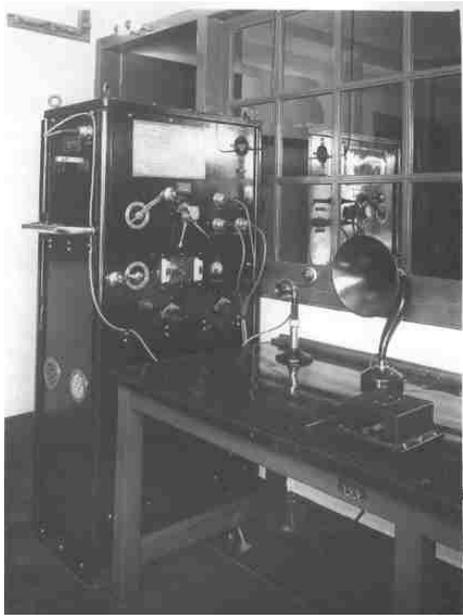
The Main receiver was a Marconi Type 12A direction finding receiver used for the main 600-metre band.

The wheels to the side of the Receiver bench are the Bowden Wire control system for frequency/mode selection of the Main transmitter, which was in the next room.

This Transmitter remained in service for many years, though one RO recalled that in its latter years, you often had to go inside the cage and



give it a 'whack' in the right place to change frequency!



The RT transmitter was Marconi Type XMC 1 Telephone Set and was in fact a 500W transceiver. Initially it was used for message traffic only but in 1937 the first ever telephone 'link call' was made when a trawler was connected to his company office through the telephone system. It was a fairly crude simplex system transmitting on 163 metres and receiving on 139 metres with all TX & RX levels being set by hand.

The Atlantic City Radio Conference of 1947 adopted two Distress frequencies: 500 khz for WT and 2182 khz for RT.

A new Post Office 'in house' transmitter was developed and in the early 1950's, the W5 became the workhorse transmitter for the next 30 years. It was an 800W, WT A1/A2 and RT A3 DSB transmitter with 3 spot frequencies for WT, and 5 for RT. It was a basic carrier generator and amplifier followed by two stages of power amplification. Switching was done by Geipel



relays at the low power stage.

At the same time Marconi 'Mercury' receivers were fitted. Also around 1954 the

DF was changed to the more accurate Adcock system which also enabled bearing to be taken on RT frequencies as well as WT. The aerial system for this was four 80-foot steel masts at the corner



of a 100-foot square plot. It was also very useful for the WT Operator to screen out QRM.

Time and Date (G.M.T.)	Station from	Station to	Strength of Signal and Wave Length in Metres Call, Signal, Message, etc.
1948	GXR	2	Champ lookout
	PEH	WT	311620 z + 211827
	W5	WT	XXX Very received for Distress Radio
	W5	WT	XXX a WT
	W5	WT	XXX SOS
	W5	WT	347.5 P.W. 207.5 +
	W5	WT	Head
	W5	WT	XXX AT GXR
	W5	WT	XXX Almost
	W5	WT	SOS Green on the
	W5	WT	East side of the
	W5	WT	After in two hours
	W5	WT	Position north of
	W5	WT	SOS
	W5	WT	Open of Head - London
	W5	WT	Emergency power available
	W5	WT	checks flooded - Station flooded
	W5	WT	Station flooding
	W5	WT	ceasing operations

On the night of 31st January 1953, the Staff on duty though used to handling Distress traffic, suddenly found themselves to be in Distress. During severe gales at a period of high tides, the sea broke through the coastal defences and flooded the station that was located just behind sandhills close to the sea. This

was a day of severe storms. Earlier that day, the log records the Distress working at Porpatrick/GPK for the sad loss of the Irish Sea Ferry PRINCESS VICTORIA. Urgency (XXX) traffic was in progress at GKZ with the mv 'Levenwood' in difficulties in the rough seas when the power failed. The mains failed and very shortly after that the emergency generator also failed. The last entry in the WT log reads 'GNF de GKZ, Station Flooding, Ceasing Operations'. This was not the end as the staff realised that if the emergency batteries were under water, chlorine gas could easily be produced. So they set to and lifted them on to benches above the flood level. The whole of the district was by now under water. The sea had broken through defences in many places, not only in this area but also other parts of the country and across in Holland.

Services were resumed a few days later using the mobile station set up for just such an emergency. It was a converted bus parked on a hill some 15 miles inland. Permanent repairs took about six months before 'normal service was resumed'.



The same transmitters were brought back in to service, but this 'tide level mark' on the W5 could be seen throughout the rest of its service. I know – during maintenance periods I tried without success clean it off.

A valve based Marconi VHF transceiver on Ch16 (156.8 mhz) & Ch26 was fitted in 1959, but was not immediately popular because coverage in the main shipping area of the River Humber 20 miles away was not all that good. Oil & Gas exploration came to the North Sea in the mid-1960's, and with it, traffic increased significantly. To provide for the special comms needs of the many Drilling Rigs arriving in the area, private circuits were set up. GKZ offered 15 RTT channels and one dedicated SSB RT channel. The RO's soon became familiar with all the new drilling and pipe laying activity taking place on their doorstep. Names like the American Pipe-Layer HUGH W GORDON/WF9654, Crane Barge HERCULES/WK5301 and trench-filling barge BARGE 279/HOZO soon became very familiar. RO's got to know each others voices and a friendly atmosphere soon developed.



The next equipment changes came with SSB. The old DSB only W5 and the Mercury receivers were no longer suitable, so along came single frequency Ajax transmitters feeding through a combiner unit to a wideband aerial and Eddystone EC958 receivers.



The Ajax's were no frills basic transmitters. Back-up was via a Marconi H1000 which had all the spot frequencies feeding a wide band amplifier into a matched Mast Radiator aerial. The times when on nights, listening to our local ships voyaging in the Med, calling Cagliari/IDC without success and jumping in to work them were now numbered. SSB somehow did not seem to pack the same 'punch' as DSB.

The W5 however, was not dead yet as it was still very capable of providing the WT 500 khz coverage, and continued in this role for a few more years.

Traffic continued to grow in the late 70's and early 80's with VHF services being rapidly expanded to remotely controlled sites at Grimsby, Bacton near Cromer in Norfolk, and Orfordness near Woodbridge in Suffolk. One of the busiest days was handling 500+ link calls one Christmas Day. This was in addition to the WT traffic, routine weather and navigation broadcasts and of course the International Distress and Safety watches on 500, 2182 and Ch16 VHF



An interesting side line to the site near Woodbridge is that the VHF dipoles were located on the same mast that was used for the development of Radar during World War II by Robert Watson-Watt.

In the mid 1980's economics began to figure in the provision of Ship-Shore services. The first automated service was Autolink. This was a direct dial Ship to Shore system based on the direct calling on working frequencies service that had been introduced earlier. Ships could 'call in' direct if a working channel was free, and QRL the channel. The ship would hear 'pips' to show he had activated the channel, and wait until answered. The Ops position would 'beep' and show a flashing light over the channel indicator panel.



With the arrival of satellites and mobile phones, traffic was in decline, so some degree of automation was regarded as the best way forward. Dedicated WT at Humber also ceased around this time.



Operators were by now becoming an expensive luxury. A computer controlled data network known as DOC (Distributed Operator Control) was developed linking all 8 manned UK Coast Stations.



Now, the Operators sat in front of a VDU screen and a keyboard to answer calls, whether it was WT or RT coming in to any station around the UK Coast or any of their remote VHF sites. Calls were offered to and answered by the first available operator wherever he was sat. So Humber found itself answering ships calling Lands End/GLD and Wick/GKR found itself answering ships calling Humber. You could still even key WT but it wasn't always your own transmitter. Of course, DOC did not require less so many Operating Staff. A continuous watch was still kept on the Calling and Distress frequencies of 500 and 2182 kHz by Stonehaven/GND and Land's End/GLD listening to remote receivers. Commercial traffic was queued into the 'system' by a search point operator.

It was of course the end of 'your local coast station'. The arrival of the microchip had signalled the end of the personal service. Things only got worse after that. More satellites were flying overhead and Mobile phones were getting better and better. As traffic declined, so did Staff numbers until Humber ended up as a remotely controlled site for Stonehaven/GND, the last manned station for UK Coastal Radio.

The end of the era finally came at 1200gmt on 30th June 2000. De Dah De Dah Dit had arrived. A couple of days later I went back in with fellow RO, Andy Whetton, and together we 'switched off the lights'.

We adjourned to a nearby pub, had a couple of beers and felt rather sad that it had all come to an end.



The MF Frequencies and VHF Channels we used at Humber were as follows.....

WT	500 Kc/s	Distress and Calling
	512	Calling during Distress working
	484	Traffic working
RT	2182 Kc/s	Distress and Calling
	1869	Broadcast of Navigation and Gale warnings, Weather Forecasts
	1925	Traffic Working
	2684	Traffic Working
	2810	Traffic Working
	3778	Traffic Working

RTT 3607.3 Kc/s

Traffic Working.

ID was *de GKZ* and bursts of alternate FSK tones

VHF GKZ Ch 16 24, 26, 85

Remotely Controlled.....

Grimsby 2GY Ch 16 4, 27

Bacton 2BA Ch 16 3, 7, 63, 64

Orfordness 2OF Ch 16 62, 82

The Station Site today has been bought privately for Holiday development, but so far – October 2009 – none has taken place so it is a sadly neglected place. The only ‘operational’ side is a 135 metre comms mast on the remote receive aerial site that carries line-of-sight microwave control comms to offshore gas platforms

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Radio Officer 1968-1984

Manager 1984-1995



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