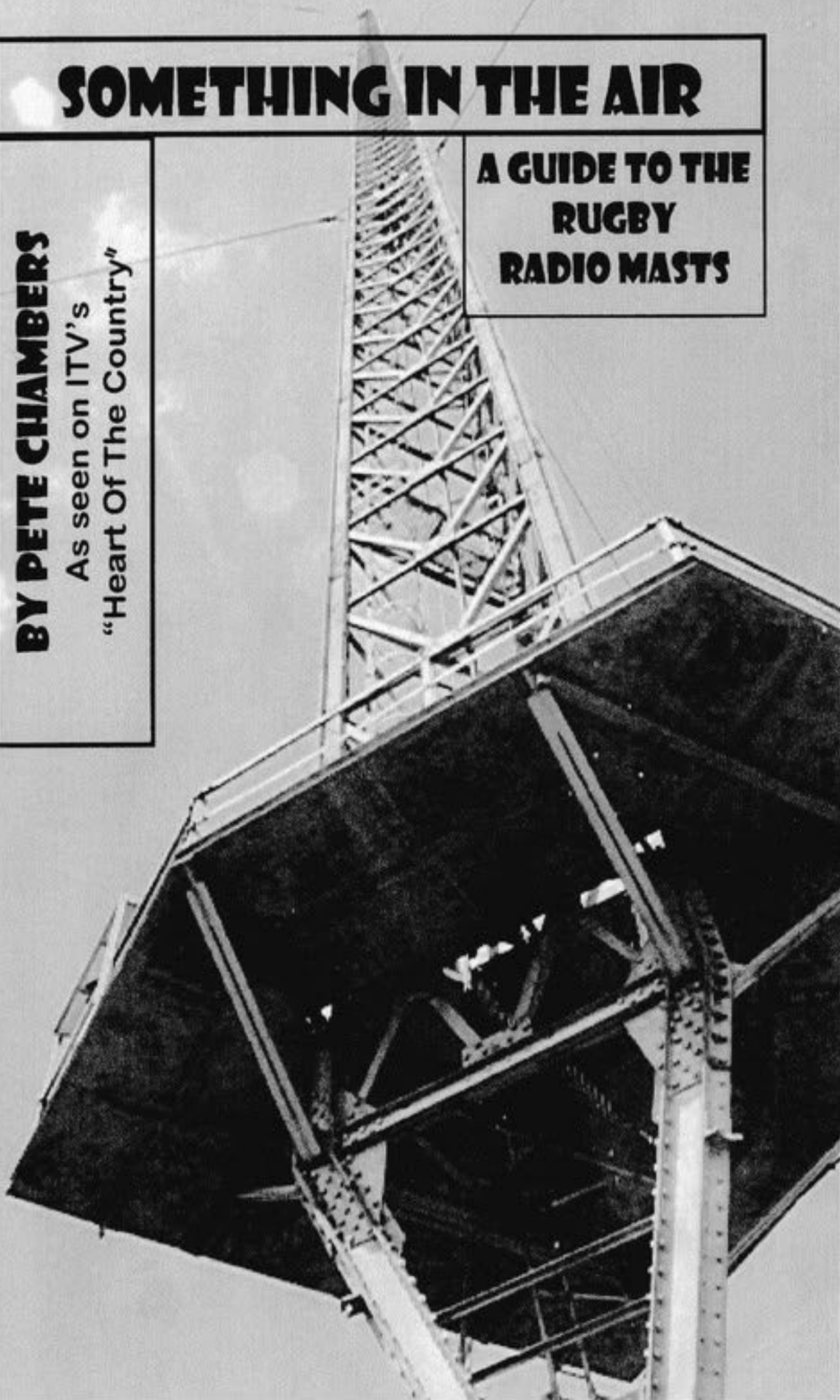


# SOMETHING IN THE AIR

**BY PETE CHAMBERS**

As seen on ITV's  
"Heart Of The Country"

**A GUIDE TO THE  
RUGBY  
RADIO MASTS**



## INTRODUCTION

"Something In The Air" you ask? Head southbound down ancient Watling Street (the A5) towards Crick South East of Rugby and you won't fail to notice, that there is an awful lot in the air, masts as far as the eye can see. The big 12 at 820 foot each are the stars of the show and indeed of this publication, just what are they transmitting invisibly into the ether, well as all good books say read on...

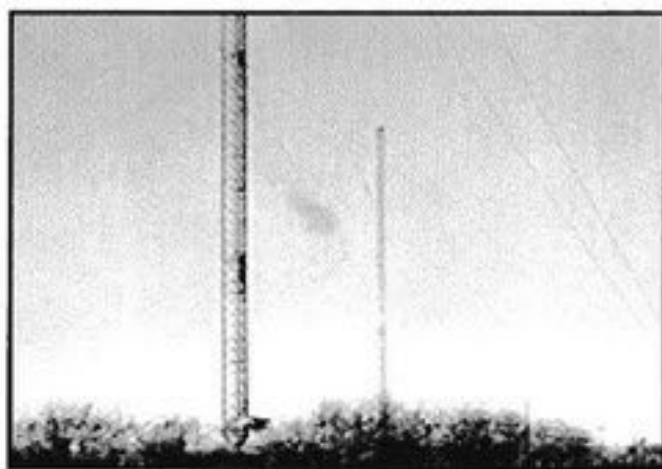
To most Rugby and Warwickshire people these electronic scarecrows are 'just something that's always been there', to train customers they're a signpost that tells you to, "Start putting your coat on, you're nearly home". At night they take on an almost sinister appearance, like huge laser slicing silently into the blackness of night. Yet for all this the masts do have a story to tell, you are about to find out that these metal monsters have a lot more about them than meets the eye! First though, why this booklet?

## ENIGMA

Well You may wonder what made me write this booklet about group of radio masts located in a farmers field on the outskirts of Rugby. Well, let me try and explain, I have always had an interest in tall structures, I think deep down inside we all do, it kind of gives us a sense of our own small perspective in this crazy world. What really did it for me though, was the mystery element, this is how it went.

We have lived in our present house for some 16 years now, our home is in Richmond Street, Coventry, not too far from the football ground. and about 12 miles (as the crow flies) from Hillmorton and it's masts. Around early 2000 I began noticing banks of red lights over in the distance as I looked out of my back-bedroom window. I had never noticed them before, a strange thing as I had lived at that address for so long!

There wasn't just a few lights, but around 6 columns with approximately 5 lights running down all of them. It was an enigma that had to be solved, but how? My initial thoughts were that it was some kind of optical illusion, I mean how could we have missed such a light-show? Maybe it was a reflection of some shop neon's or something. It was doing my head in as they say. My wife and myself even went for a walk in the general direction of the lights, needless to say we didn't get far. I tried to look at the problem logically, got the old map out, drawing a brace of parallel lines starting at my home to various likely outlying areas. Sadly a navigator I am not, I simply ended up confusing the issue even more.



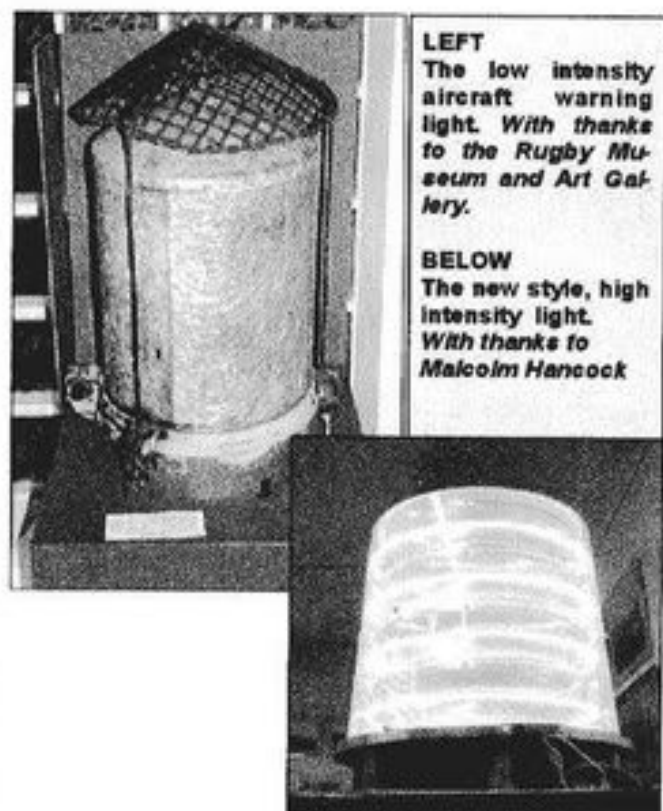
We went through all the constructions in the area that had lights on them. Starting with the Marconi tower off Binley Road, the Whitley chimney at the local tip and even Walsgrave hospital. It was obvious that our lights were on none of these buildings. After many weeks of frustration, I finally thought to myself, who could solve this mystery? I finally figured that if anyone could identify red lights in the area, the folks at Baginton airport could. I phoned on Sunday evening not really expecting a reply. I was wrong, it was answered by a very helpful guy in the control tower no less, I described what I saw, it was the same thing he was looking at! He went on to tell me that what I could see was the Rugby radio Masts! He explained that if he could view them from Baginton, then as my house was only a few miles from then it was not unreasonable for them to be visible there too.

Amazing! 12 miles away yet on certain nights (not all) they looked to be just over the rooftops but a short distance away. We had always been aware of the masts, my wife

Julie is a Rugby girl and used to live near the masts, indeed as a girl often visited Dolman Farm one of the farms the masts were located on. Of course we never thought we would be able to see them from our part of Coventry.

That was one big enigma solved, but why hadn't I seen these lights before? This mystery took a considerably longer time to get to the bottom of. It was a trip to Rugby Museum that closed the case on that one. For this new and very well designed museum has a far corner that is forever the Rugby masts display (courtesy Malcolm Hancock & Dave Grewcock of Rugby Radio Station). Apart from a rather wonderful model of one of the masts, there is displayed right next to it one of the old aircraft warning lights from the masts, before they changed to high intensity ones in 2000! It's all starting to fit now isn't it.

Yes, that's the reason we had never seen the lights before, they simply weren't bright enough. So enigma number two solved!



**LEFT**  
The low intensity aircraft warning light. With thanks to the Rugby Museum and Art Gallery.

**BELOW**  
The new style, high intensity light. With thanks to Malcolm Hancock

## HISTORY

Further on in this booklet I will go into a little more detail on each of the masts claim to fame, but first lets look at some of the history of these unassuming fellows.

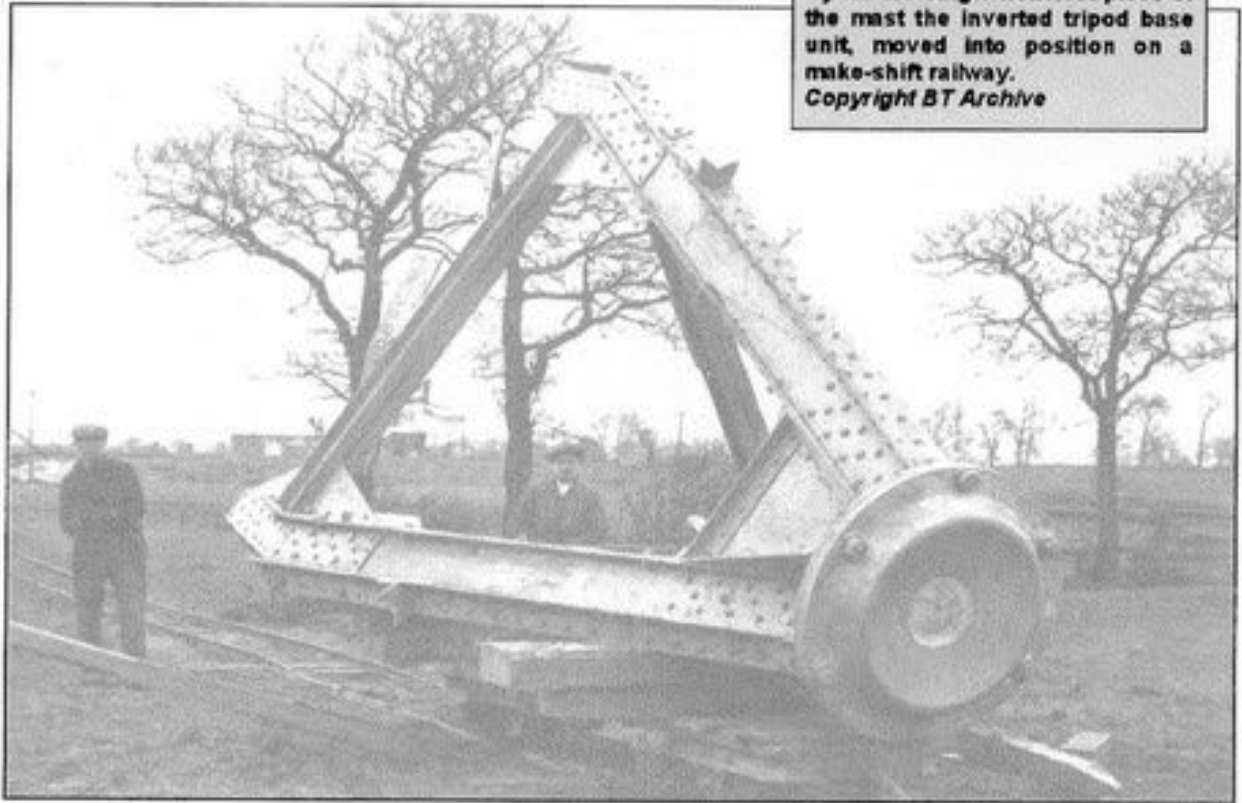
After the first World War, communication technology was to become all-important not just for the military, but in daily life too. The desire

and necessity to communicate to other countries saw a proposal to link the Empire through a series of telegraph stations. This idea was soon abandoned and the creation of the world's most powerful wireless transmitter, was brought into play. After much red tape the decision to build at Rugby was announced by Mr. Bonar Law in the house of Commons on March 5th 1923. The site at Hillmorton near Rugby was chosen by the GPO for it's ideal location; a former First World War airfield (apparently the outline of which can still be seen) with a high water table, making for a good earth to aid transmissions, it was also very flat land, 340 ft above sea level with a good transport system close by. It's interesting that ancient Watling St (A5) was an major means of communication in it's day as it's neighbour GBR was also to become.

Bizarrely Rugby Radio Station may never had been built if the decision to build had been delayed a little. As I have mentioned it was originally planned to give telegraph communication world-wide 24 hours a day. At the time long wave was thought to be the only option, but before completion of the station, it became apparent that Marconi's (an Italian inventor spurned by the GPO, who by total coincidence actually attended school at Rugby for a short while) who had recently developed short wave system would be cheaper and faster. Said to be able to carry Morse 200-300 words a minute across the world with a power output of only 20 kilowatts. Compared to long waves at the time needing 400 watts to transmit 20 words a minute to the likes of Australia!

Never the less The Imperial Radio Station, Rugby or GBR as it was known (named after it's call sign), the masts were built and designed by Head Wrightons & Co Ltd in 1924-1925, at a cost of £500,000, with 12 (although 16 were originally planned) gigantic record breaking 820 foot masts covering an area of nine hundred acres. The purchase of the land cost the GPO £49,591 18s 6d, this was from 6 land owners. Even the

By far the single heaviest piece of the mast the inverted tripod base unit, moved into position on a make-shift railway.  
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local North Warwickshire Hunt had to be given £100 for stopping fox hunting in Hillmorton covert. The construction was a marvel in itself, not least due to it been carried out in one of the worst periods for rain on record. There were nearly a million parts to put together for all the twelve masts, (remember Meccano!) So good were the constructors, that not one single part had to be taken down again once it was in place. The huge guy ropes had to be constructed on site, using special machinery and 300 miles of wire, the longest ones taking 100 men to carry! Despite the soggy problems GBR powered up on January 1st in 1926. Rugby was the first high powered station to use thermionic valves (54 of them to be exact), kicking out a mighty 350kw. By February of 1926 the first two way telephone conversation with America was achieved using another 250kw transmitter at Rugby.

The rest of 1926 saw the GPO experiment with new short-wave transmitter, although it stopped for a while in June because of a coal shortage! In 1927 an international time signal was broadcasted from Rugby, a joint development with the Admiralty and the Board of Trade to assist mariners, it originated from The Greenwich Observatory.

GBR was also visited by Lord Louis Mountbatten in February of this year.

1928 saw the opening of a second short-wave channel to the U.S.A between 16 and 32 metres. A new building was also built to house 23 new transmitters, to meet the demand of the new short-wave (high-frequency) radio telephone link with America. Royalty once again paid a visit to the site, this time it was a surprise visit from Edward, Prince of Wales!

1929 The HT machines were replaced with the more efficient mercury-vapor and later mercury -arc valve rectifiers.

By 1936 the speaking clock was being calibrated and corrected by referencing a time signal from Greenwich broadcasted at Rugby. With the onset of WW2 the station played a huge part in the war effort; during the conflict GBR became the main transmitter for submarine communication. Another role was under the codenamed CORONA, GBR transmitted confusing signals over German night fighter's radio control frequencies. I personally have a inkling that the direct transatlantic telephone link that existed between Winston Churchill and President Roosevelt would also have to have been transmitted from Rugby ( British Telecom's official line on this is, "Telephone overseas services

were suspended during the war, with the exception of one of two particular services"). I think that probably answers my question. Apparently even now much of GBR's wartime exploits are shrouded in secrecy by the Admiralty and the Official secrets Act! So strange when you consider that the station doesn't seem to have been a target of the Luftwaffe at any time, I mean you don't have to be a skilled pilot/navigator to spot it from the air do you! Even stranger is that it was during the war years that GBR experienced it's worst disasters, though none war related. In January 1940 heavy ice build-up on the aerial brought it crashing down. Heavy fog hampered the repair, which eventually required a brand new aerial system. In March 1943 the "C" building was severely damaged by fire wiping out GBR's mighty transmitters. With the outset of the war the GPO had been aware of Rugby's rather venerable position and had set up a stand-by station in North Wales. By all accounts this site's performance was well below that of Rugby's, so top priority was given to GBR's fast rebuilding. The damaged "C" building was quickly repaired and in only six months GBR was back on air. This also included it's own massive power-plant! In On 31st January 1944 a training aircraft (one of ours) whilst flying in the mist hit the top stay of mast 8 and crashed to the ground. The accident report tells us that no major damage was inflicted on the masts, but never mentions the poor pilot who surely must have perished in this unfortunate accident.

On July 28th, 1955 the then Postmaster General Charles Hill officially opened the new hi-tech million pound extension at Rugby. With auto fault-finding and a central control console that looked like something out of a science fiction film, it was at the time the pride of the GPO.

In 1956 the first transatlantic telephone cable was laid, but with little fuss Rugby Radio Station, simply replaced their lost USA customers with those from the emerging African countries.

1963 saw the Rugby referred speaking clock get a makeover.

1967 GBR was rebuilt for increased efficiency.

In June 1986 the BT radio station at Leafield in Oxfordshire closed down due mainly to the advancement of Satellite Communication, the remaining workload of transmissions were transferred to Rugby Radio.

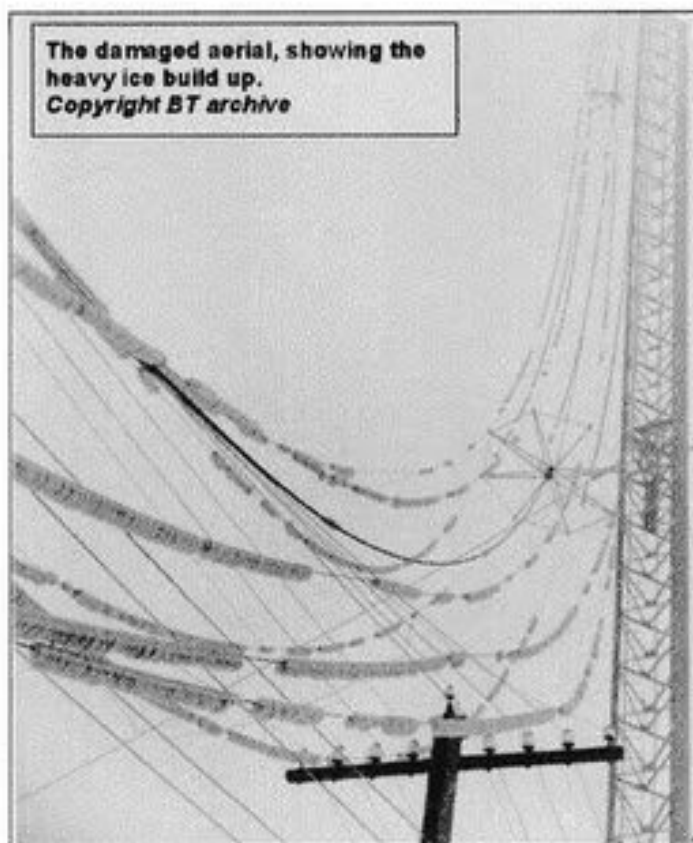
1999, The word was given by BT to decommission Rugby Radio Station

On the 12th July 2001, BT mm0<sup>2</sup> successfully tested its new emergency radio system Airwave at Rugby.

## NUTS AND BOLTS

OK, let's look and some of the facts and figures of our masts. All the main structures of the masts are the same one's originally built in 1924/25, there has of course been repair work carried out with metalwork being replaced, but the huge guy-ropes that hold the masts up surprisingly didn't need their first change till 1956! A proud testament to great workmanship and planning. The guy ropes incidentally are laid out in 3 steps from the mast, at 200,400 and 600 ft intervals. As for painting the masts well, it's the forth bridge syndrome, just as you finish, it's time to do it all over again! Each of the main 12 masts (called rather boringly mast one, mast two mast...well you get the idea, the 12 apostles would have been better),

The damaged aerial, showing the heavy ice build up.  
Copyright BT archive



are 820 feet tall, weigh over 200 tons each, they can stand a wind velocity of up to 140mph, a lateral movement of 6 ft can be experience at the top of the masts in high wind (that would be fun wouldn't it). They are 3-sided structure about 10 foot across, and the huge inverted tripod base section sits on granite base with a ball and socket affair (hence the lateral movement) insulated with porcelain. There is an aerial slung between the 12 masts in a figure of eight formation it's over three miles long and consists of 8 wires on 12 ft spreaders, it actually sags about 150 ft between masts, something like 27 miles of copper cable has been used constructing the aerial, the masts are ¼ mile apart, this is all on 1,620 acres of land. Within each mast is an electrically-controlled lift, capable of taking 4 men to the summit taking 12½ minutes, this can also be used to raise or lower the aerial.

The transmitter is known as GBR,

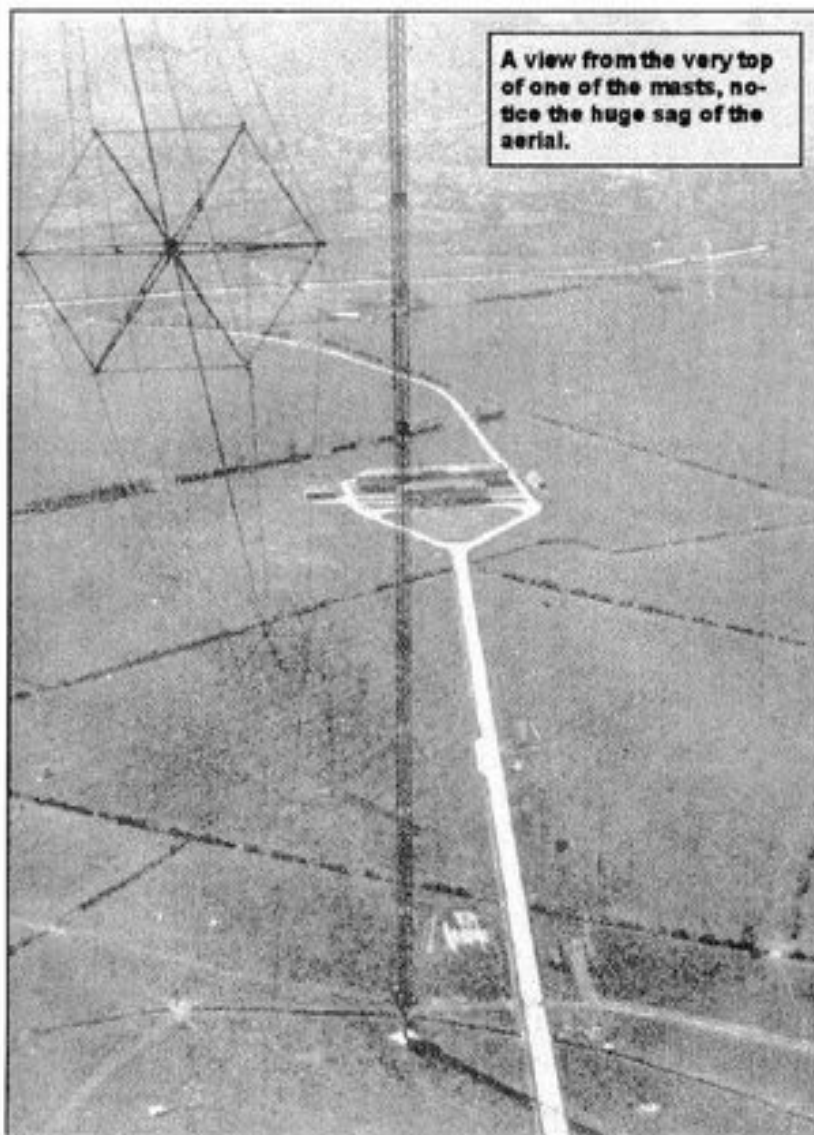
although the site is know as The (BT) Rugby Radio Station, but MSF is it's I.D. for the time signal. About 100 people work there. The station houses a huge array of radio equipment, capable of transmitting to any part of the world. There are a number of smaller (120 ft to 180 ft) masts on the site that carry short-wave transmissions, operating on various wavelengths between 15 and 50 meters.

The Rugby masts have many claims to fame, as you will read about later, one interesting fact that is worth pointing out about Rugby Radio Station is it's incredible techno resilience. Beginning life broadcast telegraph messages to the Empire via Morse-code, yet 75 years later it is being used to test out BT's brand new digital Airwave's Data Service! Now that is impressive, particularly in this day and age when technology is such that when you buy a brand new computer, you find it's obsolete by the time you get it out of the box!

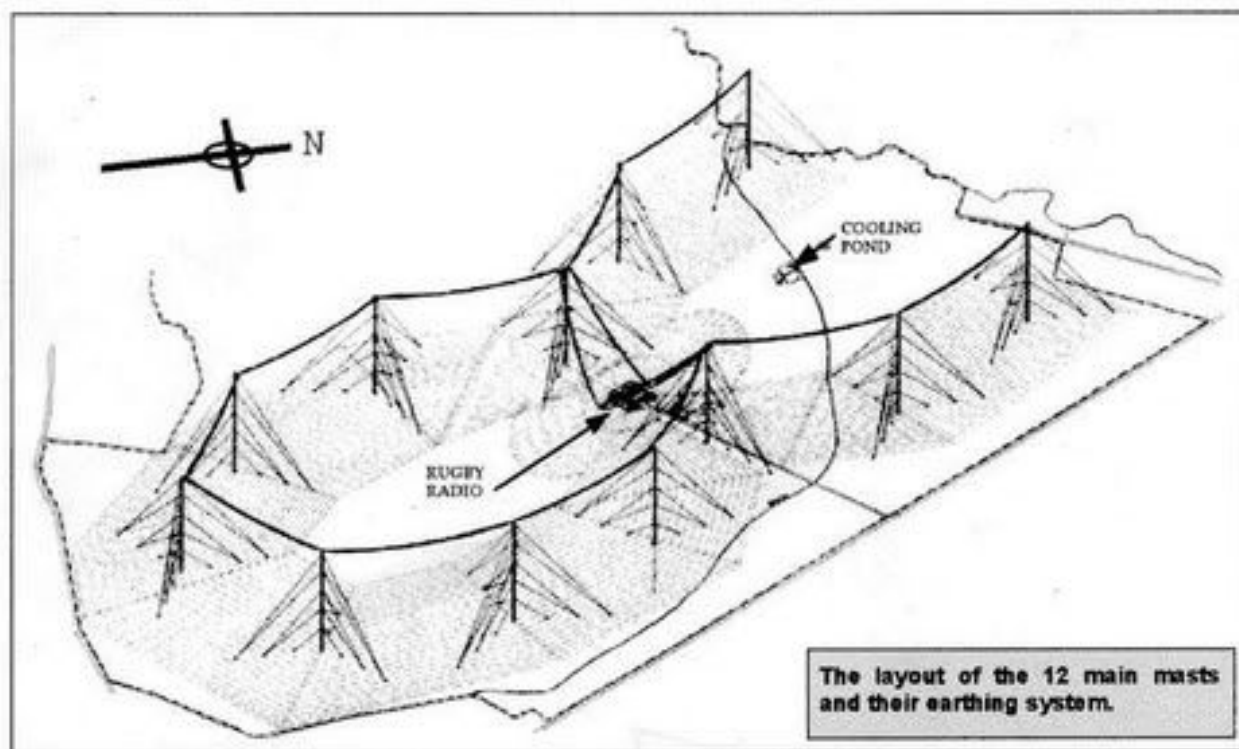
Here's the technical bit according to The National Physical Laboratory. The solid-state 60

kHz transmitter at MSF Rugby consumes 70 kW of mains power and generates 60 kW of radio-frequency signal which is sent via a coaxial cable to the antenna tuning and matching unit. The T-shaped antenna is 180 m high and 500 m across the top. A current of 160 A r.m.s. at 60 kHz flows into the base of the antenna. Because it is the vertical part that radiates, the signal strength at a given distance is substantially the same in all directions. In the case of a low-frequency antenna it is conventional to calculate what power would be required into a vertical 'monopole', whose length is short compared to a wavelength, over a perfectly-reflecting ground plane. Whatever all that means??

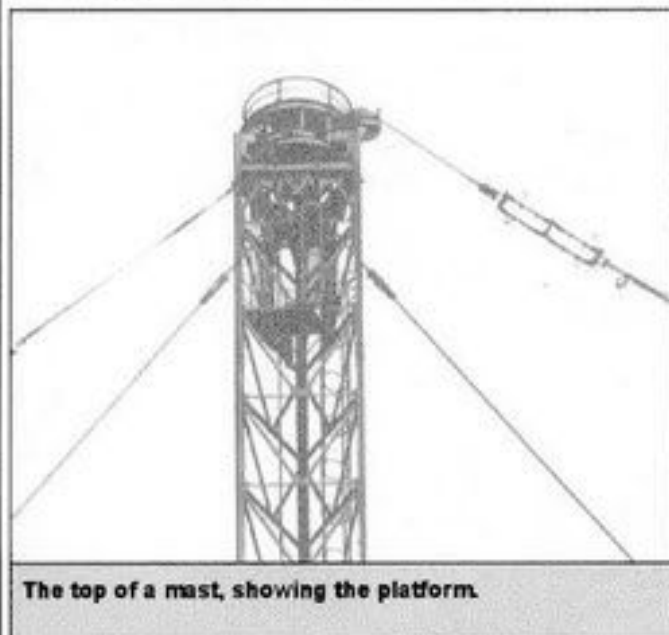
There are some 200 aerials on the site many on the other side of the A5 are actually in the County of Northamptonshire.



A view from the very top of one of the masts, notice the huge sag of the aerial.



They are of various sizes and uses powered by 53 radio transmitters. A valve operated tuning fork was used to regulate the exact frequency of one ninth of the radiating frequency. Rugby's huge generators could each provide 1,000 kW at 11,000 volts, enough to keep the town of Rugby going never mind the Station. In the 60's (when there was a lot of things glowing frantically at the plant) such was it's power that it's cooling system was calibrated in 'lbs' of steam, the cooling system also included 2 large pools on the site, excess heat is now used to heat the station.



The top of a mast, showing the platform.

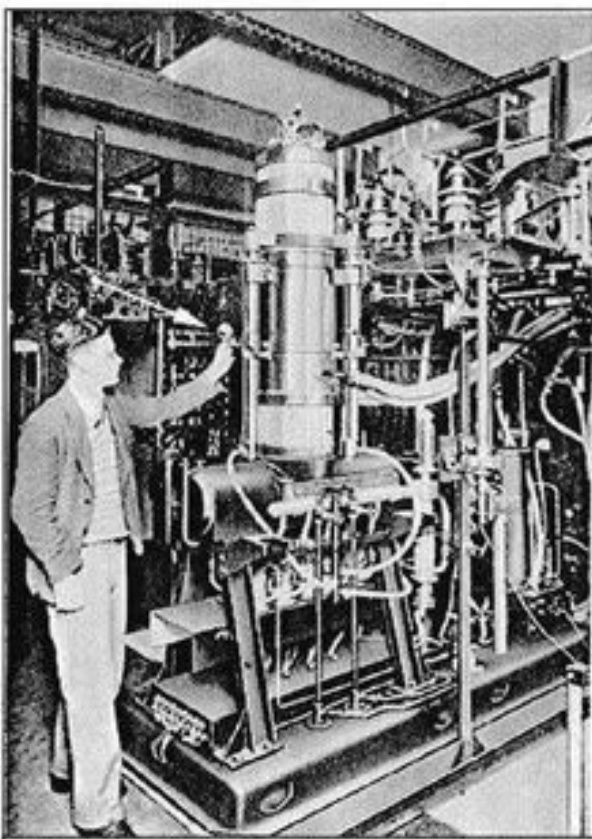
Because of the very nature of radio transmission it is imperative your aerial has a good earth, in the early years this was done by using the natural wet ground, of course an international radio station couldn't function in the

hope that it was always raining and never sunny in Britain. Ok I know what you are thinking, but because of those rare times when the ground did dry out underground cables were laid (using ploughs) connecting the masts underground as well as in the air. Indeed Site Manager Malcolm Hancock informs me that there is a lot more cable under the earth than above it, the earth system has something like 3,000 miles of the stuff, extending 800 feet on either side of the mast base! Speaking of cable the largest of the station buildings has more than 750 miles of cable in it!

### TOWER OF POWER

In 1926, when it came on air, Rugby Radio Station or rather it's transmitter (GBR) was the most powerful in the World bar none! It was as I have previously mentioned the first high powered station to use the thermionic valve. It belted out a mighty 350kW. Now I know what you are thinking, a little glass valve glowing away, how sweet, not here. This transmitter was a world beater, so the valves had to be the same. This was a giant ten foot tall beast weighing in at over a ton! Making it the Largest Wireless valve in the world!

At 40 times more powerful than the nearby Daventry broadcasting station,



One of the huge Thermionic valves at Rugby, a conventional size valve is being held up for comparison.

it's signal transmitted the world over. So powerful in fact that there are stories of 'singing cutlery' in kitchen draws, and people detecting the 16 KHz signal in their dental fillings! Another great story from former GBR Tech IIA Gordon Williams goes like this; once when the technicians began holding field strength measurements, they found a large 'hole' in one direction of the signal. On further investigation, they found that someone living in a caravan had 'tuned in' to the system in a big way and was lighting his caravan with power from the transmitter. We both found this story amusing, if not a little far fetched, but a week or so later Gordon sent me a cutting about a German community who live near the Hamburg Post Office 100 kW aerial. They were to be taken to court for 'stealing wireless energy, that would have otherwise gone to listeners'. The residents who had enjoyed free power radiating from the transmitter by fixed light bulbs to simple circuits, claim that the power was just floating in the air and effectively going to waste. So there you go, maybe I should have called this section, "Tower of Power-Gen".

Incidentally the sites huge HT machines

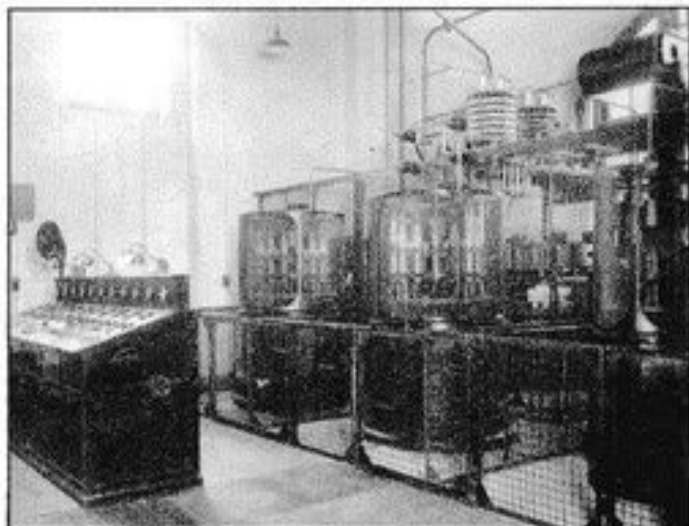
supplied by British Thomson-Houston Co. Ltd. also located at Rugby.

## WAVES OVER WAVES

Nowadays if you want to communicate with Uncle Craig in America you would most likely take the e-mail option. In the days of pre-internet it would have been a simple phone call. Much the same for the family on vacation in sunny Florida, find a telephone box, (sorry a Phone booth), and it's a simple case of a direct phone call to the UK.

We take all this for granted, but back in 1858 when Queen Victoria sent a telegram message to President James Buchanan it took sixteen and a half hours for the ninety-eight word message to get across the Atlantic via the first Transatlantic telegraph cable. Not too bad when you consider it took 12 days by ship I suppose. That cable lasted for only a few weeks, then it was back to the old drawing board.

By the 1920's however Telephony was advancing, and by 1926 the time was long overdue to have a fast reliable and direct link with the American continent. Experimental work began in 1924 with shorter tests transmissions carried out from Rugby to Wroughton, near Swindon using technology from Marconi & RCA and between Rocky Point to Houlton, Maine in America. Just 38 days after GBR went 'live', the first transatlantic phone call took place. At Rugby the GPO's Mr. Faulkner made a little bit of history with this test transmission when he spoke to his counterpart in America on 7th February 1926.



The long wave transatlantic telephone transmitter 1927.

A little less than a year later on 7th January 1927, the world's first commercial transatlantic service was inaugurated by the Post Office in Britain and AT&T in the States using Rugby in the UK and Deal New Jersey in America. For the record all transatlantic phone calls had to be booked in advance and cost £15 for a minimum of 3 minutes, and that was in 1927, when you could buy a brand new car for £215, so that would equate to something like £500 for 3 minutes today. Makes even our current mobile phone tariffs look reasonable.



## THE KING AND HIGH

The masts don't get a lot of visitors, as the general public are not allowed inside, for obvious reasons. On the other hand royalty have no such problems.

Lord Louis Mountbatten, "Twelve of them you say, I can't see one of the blessed things".

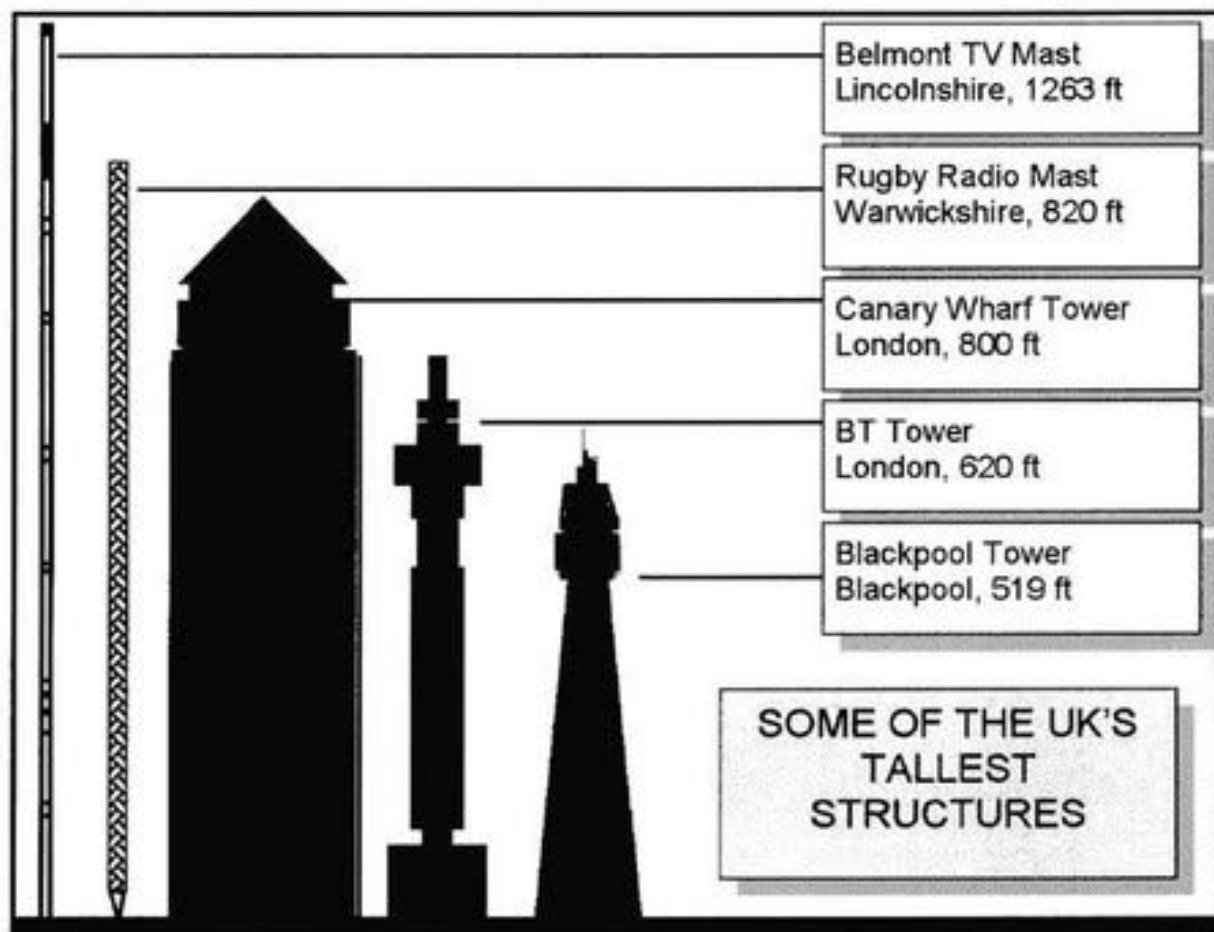


Lord Louis Mountbatten made an official visit just after the station went 'live' in February 1926. Much stranger than that however is a surprise visit by none other than Edward, The Prince of Wales, who was to become King Edward VIII.



His Royal Highness, Edward The Prince of Wales.

He was traveling in his motorcar with his brother the Duke of Gloucester and Commander Brist and his wife on their way to Melton Mowbray. It was a Wednesday morning on 29th August 1928, as they drove past in his 1920's motorcar seeing fields of masts, the young 'devil-may-care' Prince decided that he would really like to go up one of those (I'm getting a Toad of Toad Hall thing here). After been shown around the station, the very shocked staff (led by the Stations assistant officer Mr. C. O. Horn) made rather rushed plans to take the Prince up one of the masts. The Prince took the 12½ Minute lift journey to the top, and stood on the platform (at that time the highest in the World) 820 feet above the ground!



## MIGHTY HIGH

An obvious feature of the masts is their sheer size, that might seem a pretty obvious statement, but it may interest you to learn that the Rugby masts are some of the tallest structures in the UK, and in 1926 they were the tallest structures in the world, and they probably still are the tallest 'group' of masts in the world!

Nowadays they have a bit to go to beat the UK record, that goes to the Belmont TV mast in Lincolnshire, standing at a huge 1263 feet, some 443 feet taller than a Rugby mast. Nevertheless 820 feet is still an impressive height, if you want to get silly if you lump all 12 of them all together the combined height is 9,840 feet, even the tallest structure in the world the KVLV Tower in Fargo, USA can only boast 2063 ft.

Anyone who drives or uses a train around that part of Warwickshire can't help noticing field of masts often on two sides of them, drive out around Rugby at night and they take on an almost sinister look with lines of red lights rising above the landscape. Though it's pretty fair to say most locals probably

don't even notice them or give them a second glance. Yet if you were to drive around London's dockland you would probably wonder at the UK's tallest building (as apposed to supported structure) the Canary Wharf Tower, although it's some 20 foot shorter than a Rugby Mast!

Of course the Canary Wharf Tower is a solid self supporting structure, i.e. it has no need for guy ropes to hold it up. Unlike the Rugby masts, who stay aloft merely by the tension of the 15 guy ropes holding them. Each mast weighs around 200 tons and they can withstand a wind of 140MPH.

As I have mentioned there is a lift in each mast, but I'm indebted to former GBR employee Gordon Williams who told the story of the aerial riggers at Rugby who used to have races to see who could climb to the top of the 820 foot mast first using the ladder fixed inside the structure, I presume that was before the Health and Safety act came into play!

Like all tall structures, are sadly a magnet to the mentally ill, one such incident happened at Rugby Radio Station many years ago with a potential suicide victim climbing a mast threatening to jump, happily he was coaxed down and all ended well.

## GIVING THE WORLD THE PIP

Rugby began transmitting the famous six pips time signal in its second year 1927. The 'pips' themselves originated at Greenwich until 1939 when the service moved to The magnetic Observatory at Abinger Surrey, later moving again to Herstmonceux, Sussex, it was still known however as 'The Greenwich Time Signal' (G.T.S.) In 1990 the service transmitted its last pips. Replaced by the BBC's own pip service, based on signals from the 60 kHz transmitter at Rugby (and from the GPS satellite network), operated by BT Radio Services under contract to the National Physical Laboratory (NPL).

It's yet another major measure of Rugby's importance, when you consider that millions of people all around the world have used the signal from Rugby to set their clocks and watches. We are all aware of the 'pips' proceeding the news bulletins on radio, and indeed some great announcements of the 20th Century, the start of Second World War, the Death of Diana, Princess of Wales and that awful day on September 11th 2001!

The Pips system was devised by the 9th astronomer Royal, Frank Dyson. Although it's usually six pips we hear occasionally because of 'leap seconds' there was the need for a seventh pip to be Broadcast, instead of confusing people by broadcasting an actual '7th pip' the problem was solved by just extending the sixth pip instead!

In the early days the six pips were produced by a photocell reading a rotating drum and the pip duration was determined by a white stripe

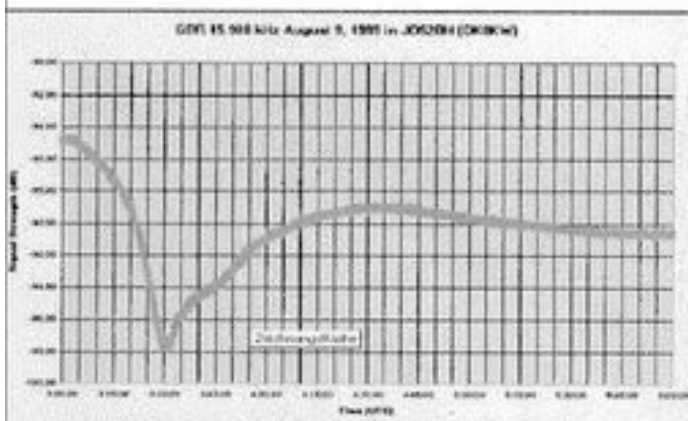
on the drum. The equipment was designed by the Greenwich Observatory and made by the Muirhead company; it was installed in 1948/49 and not withdrawn from service until February 1990, the pips were generated electronically in later years.

## SET YOUR CLOCK BY IT

The Rugby Radio Stations current biggest claim to fame is without doubt being the transmitter for the 'Atomic Clock signal'.

The signal is generated at Rugby using the atomic clock and time coding equipment provided and monitored by NPL in Teddington. The Rugby standard time and frequency transmission is normally known by its call sign... MSF (thank goodness), MSF. The 'SF' by the way stands for 'standard frequency' the 'M' is just a random UK allotted call sign (although some argue that SF does not mean 'standard frequency'). When the service began in 1950 on the HF MSF service there were announcements every 15 minutes "MSF MSF MSF" in Morse code followed by speech "This is MSF, Rugby, England, transmitting ...".

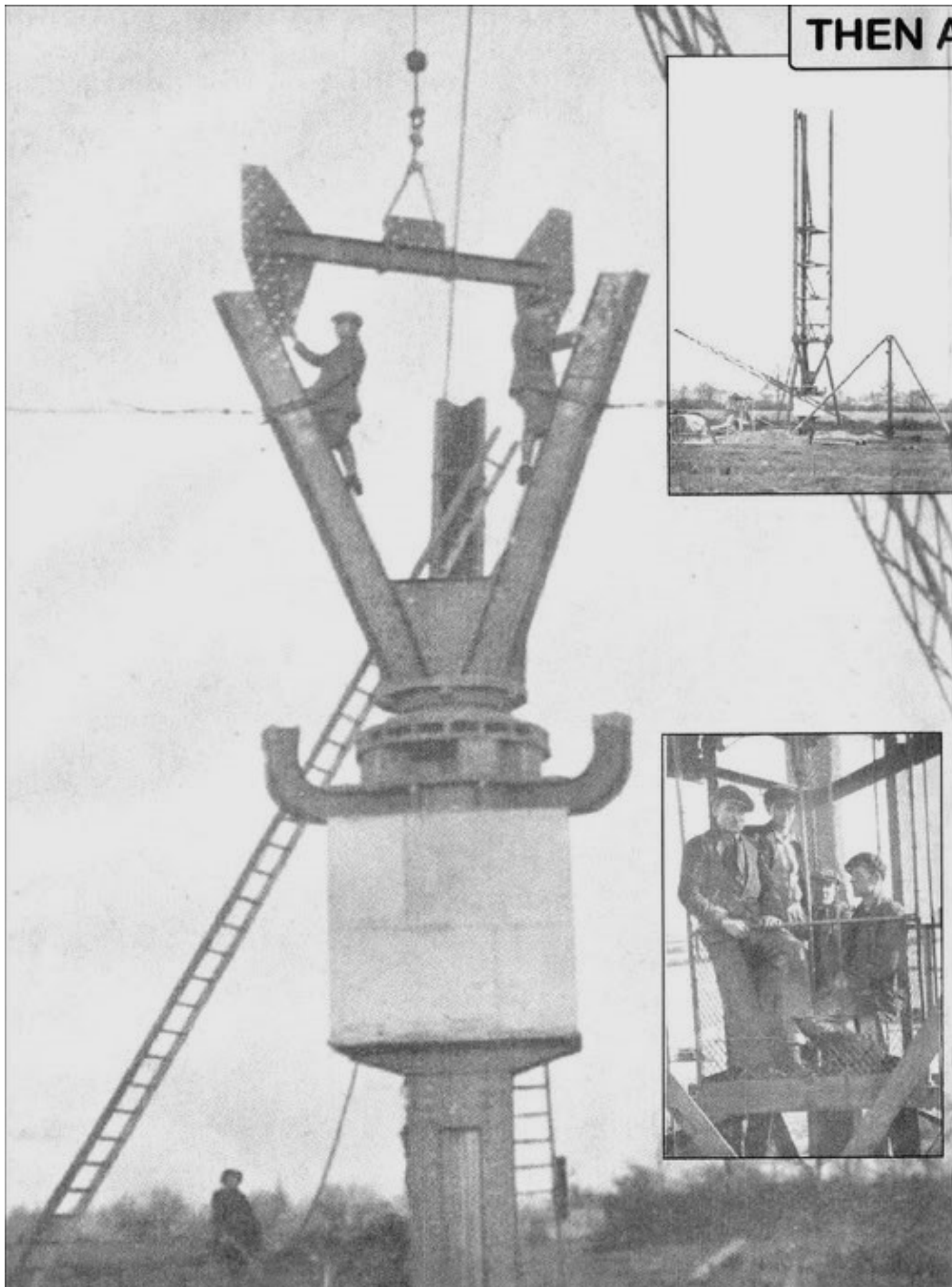
Other countries service call signs include DCF77 for Germany, VNG for Australia and WWV for America, there are around 18 of these transmitters throughout the world, all keeping the world's time in order. *Continued on page 14*



**ABOVE-**The Rugby time signal as seen in its graphic form. With thanks to Holger 'Gerl' Kinzel DK8KW.

**RIGHT-** Rugby's atomic clock.  
Copyright BT Archive





**ABOVE- MAST CONSTRUCTION IN 1924, Main photo shows the huge inverted tripod in position ready for mast building proper to start, The mast is supported by a 'ball and socket' arrangement and stands on a huge insulator block of Swedish granite. TOP INSERT- The initial stages of the building of the mast, BOTTOM INSERT- Four workmen in the lift cage ready to ascend. OPPOSITE PAGE- The masts in 2002, the author tries to O.D. his radio controlled clock with a maximum strength signal at mast No 9. photos by Pete Chambers & Paul Batchelor.**

AND NOW

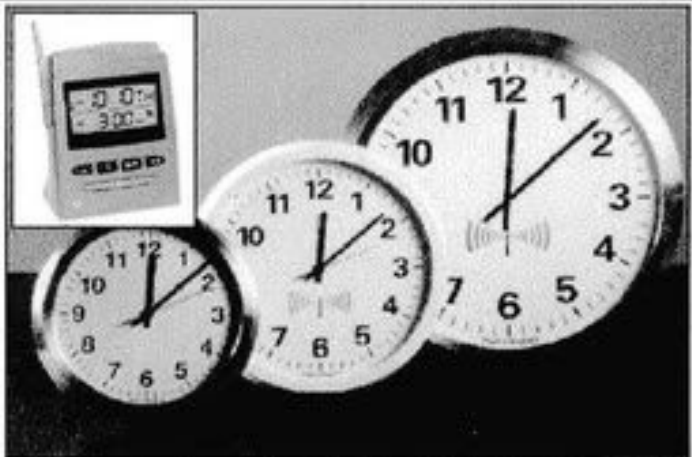


The transmission of the time standard began from Rugby in 1950. The MSF 60k Hz standard time and frequency service is funded by the Department of Trade and Industry. Rugby has the contract until at least 2007.

Pick up your Argos catalogue (no it's not an advert), look in the clocks page and you will see a range of radio controlled time-pieces, starting at a mere ten pounds or so (No honestly, it still isn't an advert). You will also on this page read the following, "You'll never need to adjust your clock again. Radio controlled clocks receive a radio signal from the National Physical Laboratory in Rugby. They automatically update themselves-even at the start and end of British Summer Time". Well almost right, the National Physical Laboratory as I hope we have established is in Teddington, not Rugby, the atomic clock is in Rugby, but monitored by the folks at NPL. I have one and it works well, but I am in direct line of the masts! Seriously though, they should work anywhere in the UK, no need to alter the clock for Daylight Savings either. Many clocks at railway stations and the like are radio controlled and are set from Rugby. There are some 100,000 radio controlled clocks, and more than 70 accredited laboratories using the MSF signal. You can even get them in kit form.

For the technical among us, the MSF transmitter at Rugby is at latitude 52° 22'N, and longitude 1° 11'W. The solid-state 60 kHz transmitter at MSF Rugby consumes 70 kW of mains power and generates 60 kW of radio-frequency signal which is sent via a coaxial cable to the antenna tuning and matching unit. Transmission is 24 hours a day, and the carrier frequency is maintained at 60 kHz to within 2 parts in 10<sup>12</sup>. The range of the signal is around 937.5 miles or 1,500 km, so the whole of the UK is well within range. (thanks to the NPL for this information).

The Atomic clock is of course amazingly accurate, using the precise frequency of the caesium 133 atom. It is out by no more than a second over 300,000 years! But scientists are now



**ABOVE-Examples of radio controlled clocks. With thanks to Galleon & (insert) Oregon Scientific.**

working on an even more accurate clock, by cooling down the atomic clusters with lasers, they hope to make the new clocks accurate to one second in 100 million years!

On Millennium eve our friends at Rugby as to be expected started to receive their fair share of press & TV interest, Rugby Station manager Malcolm Hancock more than once was called upon to answer the odd time-related question, explaining how it was going to work, he said, "The instruction comes from the National Physical Laboratory in Teddington and we program the clocks in advance, but someone will be there at the time to make sure it all works correctly".

One clock that is definitely not radio controlled is Big Ben (or the St Stephen's tower clock to trivia loving folks), for Millennium Eve there were plans afoot to synchronize it to the Rugby signal, but at the last minute (no pun intended) the luddites of London forbade anyone messing with Big Ben's bits! There were instead 3 engineers on site to ensure all went well, as far as I know it did!

### HIS MAST HIS VOICE

One other time service MSF provides is the good old talking clock. Initiated in 1936. A competition decided the 'Golden voice' for TIM, going to Miss Jane Cain, giving the Greenwich time correct to one-tenth of a second, she was replaced in 1963 by Pat Simmons she in turn was later replaced by the current male voice of Brian Cobby, (now there's some trivia to try down the pub). TIM had a complete overhaul in 1963 making it even more accurate to 1/20 of a second.

## WAVES UNDER WAVES

Rugby has had quite a nautical history despite it's central location and distance from the sea (or maybe because of it), since 1926 it has been allied to the MoD. Broadcasting long range to ships all over the world, GBR obviously played an important role in the Second World War, but it's marine services were not only directed to the military. Working closely with the famous Portishead Radio, providing the maritime community with a service they could depend on (even aiding round the world yachters). Sadly Portishead Radio is no more, Rugby however still provides the entire HF maritime transmitter service. Including the controversial Nuclear Trident submarine fleet (see 'Radioactive' for more information). One expert on Rugby's marine service recalls, " The famous keying of the GBR call sign in Morse caused the lights in the vicinity of the radio station to illuminate in time to the keying, this is no more, because of transmissions are now in teletype".

It is in this area that many amateur radio hams have a long time affinity with the station. On 29th May 2001 the British Royal Navy celebrated their centenary of the RN Submarine service and 75th anniversary of operation the GBR transmitter at Rugby with a special event transmission on the very long wave frequency of 16,0 kHz in Morse telegraphy. QSLs were issued ( a QSL card is like a postcard that is sent out by radio stations to radio enthusiasts who send them reception reports of their broadcasts) Here follows the transcript of the special anniversary message .....

*gbr time gbr time gbr time gbr time gbr time . (followed by timeticks) . vvv de gbr vvv de gbr attention all ships and submarines this is a special transmission to mark the centenary operation by her majesty's royal navy to celebrate the achievements of the submarine service and the security it has brought to the united kingdom tribute is paid to the dedication and professionalism of submariners both past and present and particularly to those who have given their lives in the service of the nation this transmission also celebrates the 75 years of radio broadcast to ships and submarines from the gbr transmitter gbr has maintained an almost unbroken service since January 1926 providing a vital link to the royal navy across the globe tribute is also paid to those responsible for the operation and technology that has maintained this service her majesty's royal navy is pleased to welcome the submarines and their crews from the naval services of overseas nations to share in this unique submarine centenary celebration taking place in the river Clyde de gbr AR (thanks to OM Trond Jacobsen)*

It may be 75 years on, but it's interesting to note that the Royal Navy still use Morse coded signals while the patrolling in deep water, apparently it's still one of the few things that penetrate at these depth. Maybe we haven't advanced as far as we think we have!



--- .-... .-. .-. ..- --- .-... .-...  
G B R R U G B Y

**TOP LEFT-**  
A written interpretation of 'GBR RUGBY' in Morse Code.  
**BOTTOM LEFT-**  
The QSL card to commemorate 75 years of service to the Royal Navy.  
**BOTTOM RIGHT-**  
GBR Poster.

**May 29<sup>th</sup> 2001**

Special Broadcast  
16 kHz A1A  
at  
1200 and 1330 GMT

Celebrating 100 years of the Royal Navy Submarine Service and 75 years of transmissions from GBR

To:

Thank you for your reception report



## RADIO SPACE CALLING!

Every good story should have its off Earth experience, the GBR story is no exception. Between 1961-63 Rugby was called on by NASA to help with its HF transmissions for the Mercury Project. This included Alan Shepard's historic first American space flight in Freedom 7. Several years later in the mid sixties this time with the Gemini Project, the station proudly served the space giants once more.

On 26th January 1929 a message was sent to Mars on behalf of a New Zealander Vicent-Jaxon. The message was sent in Morse code and went as follows; ORIRIS AMVBIS, FACE, TEN, EIGHT, FIFTEEN, THIRTYONE, - JAXON" (Oriris is an Egyptian God, Jaxon is obviously the family name but what the other means is a mystery, unless they are coordinates of some sort, I know that in the 1920's a system of Morse code was devised to create pictograms using light and dark to correspond to dash and dot, this doesn't seem to be that though.) it was sent again on 19th June also 1929 but they never got back to us....or just maybe **they did**,.... (cue the Twilight Zone music) . On a lonely night in mid November 1999, Mark Hulcombe was heading South towards Northampton, as he drove past the fields of masts, he noticed a strange formation of lights above the tallest and furthest mast from him. (The first mast on the right heading South). "It was about 30 feet above the mast and stuck out like a sore thumb, it wasn't there minutes earlier Mark slowed down and noticed that the triangular formation of lights were moving at 'walking pace' above the mast. "There was a bright white light in each corner and a smaller red one in dead centre. There was a smaller white light between each corner light. Although I couldn't see the body of the craft, these lights had to be fixed to a structure and I assumed it would have to be triangular, with the lights on the underside near the edges". he said. "My eyes were just drawn to the lights and I knew that they weren't suppose to be there". The sighting lasted about 3-4 minutes

as he slowly drove through the BT Installation. He also noticed that an articulated lorry had pulled over the driver had obviously seen the same thing. Mark looked in his rear view mirrors for the lights as he drove past but couldn't see them, although he could see the mast that the craft had been above, they had obviously disappeared at a great speed! This by the way is only one of the many accounts of sightings by various different people in the GBR area! All of them describe a triangle or diamond-like object.

Putting skepticism aside for a moment, I guess that if aliens were to come to Earth, it's reasonable to assume that they would check-out the source of such a strong signal, and GBR has been described as 'A Hush Hush base' could it actually be the UK's answer to Area 51?, well that's another story, I will leave you with that to ponder. While you are still in pondering mode, here's something Carol Vordermann would be proud of. My good friend Denis Murphy has worked out the distance that first signal sent out at GBR in 1926 has travelled. Moving at the speed of light, the signal (and indeed all subsequent ones) just keep going out into the never-ending blackness of space, Den calculates it has traveled some 444571545600000 Miles, a long long way but it will still take it some 20,000 light years before it even leaves our Galaxy !



Alan Shepard makes his historic journey  
Photo & logo Copyright of NASA.

## RADIO STAR

When the late great Vivian Stanshall introduced the roll call of instruments on the classic 1973 Mike Oldfield album "Tubular Bells", he omitted one item that is rather peculiar to say the least, strange as it may sound he could also have said, "Morse code from Rugby radio Station". Err, no I haven't gone mad, for hidden on that album is indeed the ID message of GBR. But don't go cranking the volume up and getting your headphones out, you see it's not really audible to the Human ear (if someone really could hear 16kHz it would still be masked by the music, the signal is very faint, just a few dB above noise level.). Gerhard Kircher from Austria is the guy who discovered it, this is how. He was testing a spectrum analyser, a clever piece of hi-tech equipment that can detect the very make up of frequencies in a sound source. He put on Tubular Bells (as it was handy) as a sound source, and purely by coincidence he suddenly could detect a rather regular frequency signature. He was able to work out it was the Morse coded ID for Rugby ... "VVV GBR", so Tubular Bells begins with accompanied by the transmitter sending out it's call sign! These transmissions were not of course put on the recordings deliberately, far from it, the answer lies in Rugby's powerful transmissions being picked up on sensitive studio recording equipment. Guitar picks and microphones being the main culprits, interestingly Rugby Radio Station is only 37 miles North of The Manor Studio at Shipton on Cherwell In Oxfordshire (once owned by Virgin's Richard Branson), where Tubular Bells was in fact recorded. Gerhard tells me that he has detected signals on other records that could be from GBR, but none are as strong or discernable as the one on Tubular Bells.

For those of you however, who still need the quick fix of some tangible audio output from Rugby Radio Station try Vangelis's 1976 album ALBEDO 0.39, on the great opening track Pulstar you will hear the talking clock, regulated of course at GBR! Or if you are really sad, you can listen to the time pips on the ELO track "Here is the News" from the "Time" album.



Mr. Oldfield's classic album of the seventies, Tubular Bells. Copyright Virgin records.

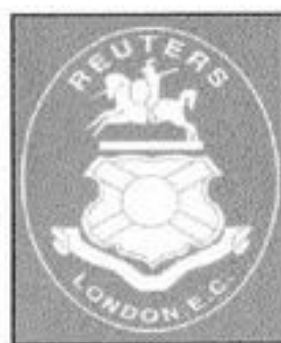
## HERE IS THE NEWS

From 1950 to the mid 1970's GBR carried press traffic transmissions for the likes of Reuters and LPS (London Press Services).

The latest news (news and pictures) from the UK and the rest of the world were received and then transmitted to various press offices throughout the globe.

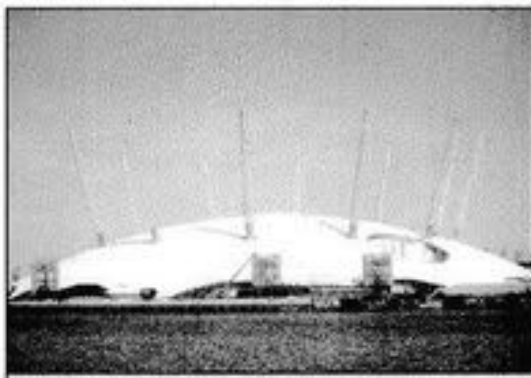
Although the aerial systems used were directional, several press offices could pick up the same news broadcasts, and print it in their newspapers the next day. Here's a list of some of the major news stories that would have been carried by GBR.

- 1950 Korean War.
- 1952 Princess Elizabeth Becomes Queen at Age 25.
- 1953 Hillary and Tenzing Norgay Climb Mt. Everest.
- 1954 Roger Bannister Breaks the Four-Minute Mile.
- 1956 Suez Crisis.
- 1957 Soviet Satellite *Sputnik* Launches Space Age.
- 1961 Bay of Pigs Invasion, Berlin Wall Built, Soviets Launch First Man in Space.
- 1962. Cuban missile crisis, Marilyn Monroe Found Dead.
- 1963 JFK Assassinated.
- 1965 U.S. Sends Troops to Vietnam.
- 1967 First Heart Transplant.
- 1968 Martin Luther King Jr. and Robert F. Kennedy Assassinated.
- 1969 Neil Armstrong the First Man on the Moon.
- 1970 Beatles Break Up.
- 1971 United Kingdom Changes to Decimal System for Currency.
- 1972 Terrorists Attack at the Olympic Games in Munich.



## A POSITIVE SIGNAL

Throughout this publication I have assumed that most Rugby folk care little for the Vertebral Guinness Book of Records that is on their doorstep. But not all in the area dismiss Rugby Radio Station so easily. Rugby Museum has as I've mentioned a quite wonderful display on the Station, Rugby tourist board give a mention to it on line and in print, including a 'Did you Know' entry in their informative Visitors Guide. During it's troubled year, the Millennium Dome played host to school children from all over the country, Warwickshire's day was on January 17th 2001. 130 local children told the story of the region in a 'mock awards ceremony', Rugby Radio Station was one of 6 nominations in the Communication Category (others included The Fosse Way, Watling Street, railways, motorways and Canals). The Fosse Way won it, what a swizz.

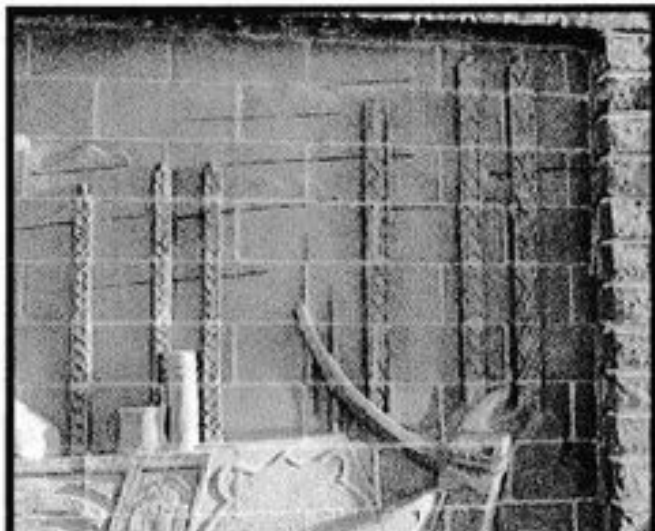


*The ill fated Millennium Dome, with it's twelve small 329 ft masts.*

The masts appear on the Rugby Rural District Council chairman's chain of office and maybe even on the crest of a local football team. Despite all this there remains one thumbs up to it that is a little bizarre to say the least.

Spend a penny in the Award winning 'loo with a view' in North Street downtown Rugby, and on the way out you can admire the mural of Rugby's heritage! The philosophy here is "Why put it in a museum when a toilet wall will do", this is really getting art back on the streets. Well I suppose it's more accessible to most people; I mean even if you never go to the museum you'll probably use the toilet at some point.

Anyway as part of the mural you will see in the top right hand corner a depiction of 8 of the masts! The Brass plate that sits under the mural says this about them. "A long-standing feature on the edge of Rugby has been masts of the Radio Station. The station opened in 1926 and at that time it had been the world's most powerful transmitter from which the world's first long distance commercial radio-telephone service was initiated" Station Manager Malcolm Hancock had this to say on the subject, "I'm not sure if that's how we want to be known!!!" All I can say is, " Now wash your hands!"



*The Award winning toilets in North street Rugby  
A John McKenna design.*

## RADIO SHOW

OK so you have read about the masts but now you want to see them in all their mighty glory, well as I have mentioned, forget about getting into the site, security is high and visitors are by request only. Even stopping in the roads and lanes that surround GBR is not always easy (or in some cases not recommended).

Driving around the area is always the best bet and an interesting experience to boot, this way you will get to see all the site and realize just how huge it is. Do it at night and you get the full illuminated tour, but just think how the sky in the area would really light up if we could only see radio waves, spooky!

The best way without doubt to get hands on with Rugby Radio Station, is a trip to Rugby Art Gallery & Museum.

Apart from all the other great exhibits there a wonderful area dedicated to the Rugby Radio Station. The display skillfully put together by Malcolm Hancock & Dave Grewcock from the station, includes posters, valves various electrical paraphernalia and a perfectly detailed scale model of a mast, this was built in 1976 to mark GBR's Golden Anniversary by former GBR employee Bob Lawrence. Along side it sits the old style aircraft warning light that I talked about at the start of this story, press the button and on it comes (I could play all day). On a table to the right of the model and light are two radio controlled clocks, that of course get their information from Rugby, and there's even some audio/visual information from the touch-screen terminal close by and some good old written information again from Malcolm and Dave, this folder contains a lot of information and deserves at least 15 minutes of your time. As I write this book I am hopeful that it too will become part of that collection.

**BELOW-** Bob Lawrence's wonderful mast model, at Rugby Museum, showing the guy ropes layout.



**Rugby Art gallery & Museum,**  
Little Elborow Street, Rugby CV21 3BZ.  
Tel: 01788 533201

Website: [www.rugbygalleryandmuseum.org.uk](http://www.rugbygalleryandmuseum.org.uk)

Email: [rugbyartgallery&museum@rugby.gov.uk](mailto:rugbyartgallery&museum@rugby.gov.uk)

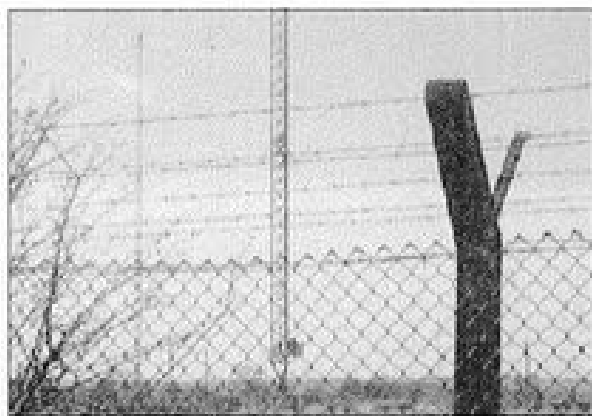
**Free Admission**      **Opening Times**

Tuesday and Thursday	10am—8pm
Wednesday and Friday	10am—5pm
Saturday	10am—4pm
Sunday and Bank Holidays	1pm—5pm
Monday	Closed

## RADIOACTIVE

Like most things in our world, no matter how innocuous they may seem, there is always a negative or down side to them. Rugby Radio Station is no exception. There are 3 main areas of public issue over the masts. The biggest by far and the most contentious issue of them all, is what happens to the site when the masts come down? Well I will be addressing this in the next section as it seems to fit there a little better, but here we will look at the other two topics of tepid, rather than hot debate.

Mobile phones, there great aren't they, everyone's got one, young, old, how could we live without them? But every Yin has it's yang, more and more we a reading about the scourge of the mobile mast, NIMBYism is rife, everyone wants a mobile but no one wants a mobile phone mast in their back yard. Radiation fears being the bone of contention, these masts ( or at least the fear of them, TV's are on a similar scale but there is no such paranoia about them) could become to the mobile revolution, what AIDS was and indeed 'is' to the sex revolution! It's a sad fact, but radio waves do dissipate radiation emissions, the bigger the transmitter the bigger the potential problem. Of course at Rugby they don't come much bigger, so what about potential risks? Well after 76 years there doesn't seem to be any major health scare, it's remote location no doubt aiding this fact. However there has been a very short debate in the house of commons as this full extract from the HOC Hansard 28/05/95 shows..... **Sir Peter Emery:** To ask the President of the Board of Trade how many persons who have been employed at Rugby radio station are known to have developed cancer. **Mr. Ian Taylor:** This is a matter for the board of British Telecommunications. Short and sweet I think you will agree. If there has been a problem there, then no one is saying, I can only assume and hope that all is well.

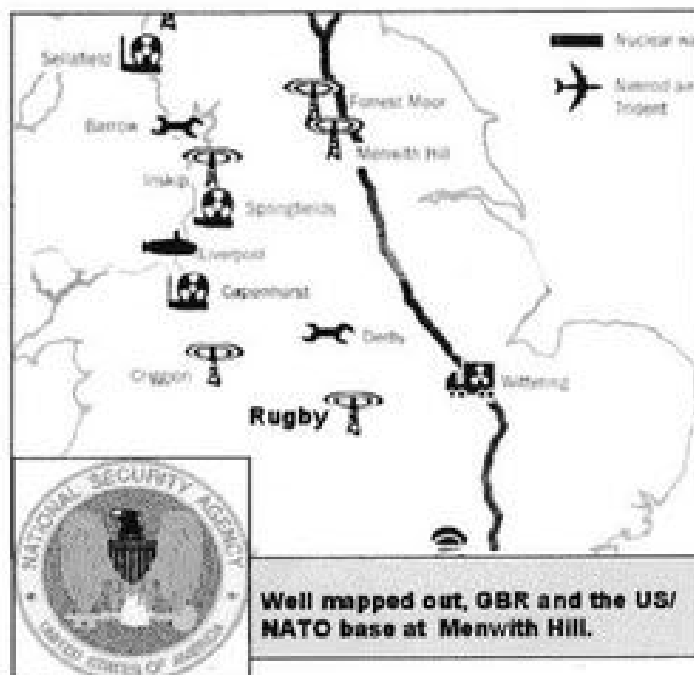


Security at the site as to be expected is VERY tight!

Whilst researching this booklet I trolled through a lot of web pages, only once did I read about the masts and feel a little uneasy, here's the reason why. Many believe GBR controls Britain's submarines, including it's nuclear subs. Our Trident fleet are the UK's main nuclear carriers, admittedly despite the recent Afghan conflict, nuclear-wise at least the super powers seem to be getting along better than ever before. Nevertheless, our nuclear deterrent is still very much there and so are those who seek to eradicate it. There is one such group of people that through their website they seek to promote the anti-nuclear stance in a very 'hands-on' and in deed somewhat anarchic way. I don't intend to give them any encouragement or condone what they do, but neither do I wish to ignore yet another important if a little chilling aspect of the Rugby Masts, and like it or not we are all entitled to our own opinions, I would however make it very plain that their views are not necessarily shared by me or anyone else who helped with this book, and I advise you without hesitation.....don't try this at home or anywhere else for that matter! Their site includes a map that charts all the Trident sites in the UK, and under the aerial icon we see Rugby. Rugby they deduce is one of the main command and control sites for Trident submarines, they go on to say that the massive US spy base at Menwith Hill in Yorkshire has links with Rugby Radio Station run by BT on behalf of the MoD. More chilling than that is there quick removal suggestions for radio masts, it explains in graphic detail of how to sabotage a radio mast! I was kindly requested not

to use it in this book so I won't, it does however make chilling reading! It's only fair to point out that as far as I know these people have never actually carrying out the actions mentioned, all the same thank goodness that Rugby Radio's security is top class!

One schoolboy who did get into the station in 1926, had a luck escape, he touched a live wire whilst climbing a mast and was electrocuted and fell 12 feet. The then Engineer-in-Charge made it clear that trespassers to the station ran grave risks, as it was impossible to label all the danger points, so be warned!



Well mapped out, GBR and the US/ NATO base at Menwith Hill.

## WAVE GOODBYE

Here we look at the future of Rugby Radio Station and it's masts. Talk to most people about the masts, and the one fact they nearly always say is, "I know that they're coming down". It has been intimated that in 1999 the order to decommission the station was given by BT. Already there is a heated argument about what will happen to the land when they are gone. Maybe a trifle premature, GBR's MoD contract runs till 2003 and their Atomic clock signal contract at least until 2007. Even the people at the station are uncertain what will happen to the time signal, but wouldn't be too surprised if it remained at Rugby in some form or another, but who knows?

GBR is still very active, although it may be true to say that it's glory days are in the past, there is still a lot going on in there (probably

some stuff we will never know about)! One new development is BT's Airwave service, a nation-wide mobile radio service designed to impart information to the Police/ambulance and other safety organizations with clear digital clarity. It is being introduced in the next few years with The West midlands Police getting in in 2003 and the Warwickshire force a year later. On the 12th July a live demonstrations of Airwave took place at Rugby to great success. So 75 years down the line GBR is still at the cutting edge of technology, and I bet you can't say that about your granny!

Meanwhile back in the boxing ring, BT wants to sell the land off to developers either for housing or an industrial estate, campaigners want to turn this 'brown' site into a 'green' site. It's true to say that despite it's masts, the area is wildlife friendly. As one campaigner puts it, "It's farmland, it just happens to have some poles on it, it's riddled with hares, woodpeckers (with bent beaks no doubt) and skylarks". Not just wildlife, apparently it's of archeological interest too, with the foundations of 100 Iron age houses found nearby. Never the less Rugby has been well and truly divided by this contentious issue, with petitions taken place, and Rugby Borough Council celebrating the decision by Warwickshire County Council that the sites future should be in it's own hands. Having said that, it still has some tough decisions to make in the days and months ahead. There is absolutely no truth however in plans to turn Rugby Radio Station into the world's biggest Bungee jumping park or indeed a Warner Brothers theme park!

I'm not getting involved one way or the other, as far as I'm concerned I just don't want the masts to go (SAVE THE MASTS! There that was my protest, I feel better getting that off my chest), you see all this decommissioning talk is like planning a funeral for somebody still very alive! If/when BT bring in the official receiver (sorry about that sad and factually incorrect attempt at a joke) and the masts do go, the area around Hillmorton and Crick will be void of it's most famous landmarks and in my opinion will be a far less interesting place for it, but far worse than that how are we train passengers to know when it's time to put our coats on! I'm not the only one, many Rugby people don't want the masts to go either, christening them 'The Beacons of Rugby' and even claiming them to give a feeling of placebolic reassurance, but despite all this in the very end satellite will inevitably kill the Radio Star!

## SIGNING OFF

So the next time you pass the 12 apostles that are the Rugby masts of GBR, just remember there's a lot more going on there than meets the eye! I hope this booklet makes people realize what a unique place we have (or had) on our doorstep, not just unique in the UK, but in the world too.

When the masts do finally come down it's my wish that this booklet will go some way in keeping the memory of these hard working giants in people's minds. I feel a sense of achievement for having done this tribute to an all too often forgotten landmark in our area. Through a lot of research I have tried to make this booklet as definitive as possible, but you can't please all of the people all the time, so do let me know if I have excluded anything important. Yes I know I'm no literary genius (far from it), but ignoring my lack of skill I hope you think it was at least interesting, and who knows I may well return with yet another booklet or a another revised edition when the masts finally come down. See you then! Or check out the 'Something In The Air' website at [www.visitrugby.com/radio](http://www.visitrugby.com/radio) (that should be up and running, thanks to the 'Visit Rugby' website).

*Pete Chambers*



GBR's main entrance 2002, Top- inside looking out and Bottom- outside looking in.

## UPDATE

This is the revised copy of *Something In The Air*. When I first wrote it I expected a few kind souls to simply have a browse through, instead I have been blown away by how positive people have been about it, many genuinely showing an interest!

I have had a lot of people contacting me and telling me how much they liked it, how well written it is (blush, blush), it's even done the rounds with BT workers in Coventry (thanks to my old mate Roger Griffith).

Publicity is growing, indeed as I write there are no more copies to be found at Rugby Museum and Library. Hence this frantic e-mail I got from the folks there. *"We have had an overwhelming response to the publicity and both the Museum and library are now out of stock of your leaflet. Is there any chance of any more copies?"*

The publicity that librarian Corinne Harvey speaks of follows thus.....

First the team from the Carlton/ITV TV show 'Heart of The Country' showed up to do an interview with me (due to Reg West of The Rugby Visitors Centre giving them my e-mail, thanks Reg) for an item they were doing about the Radio masts (purely by coincidence). So I nervously made my way through the questions that the charming Laura Martin asked me. See the back page for more on this.

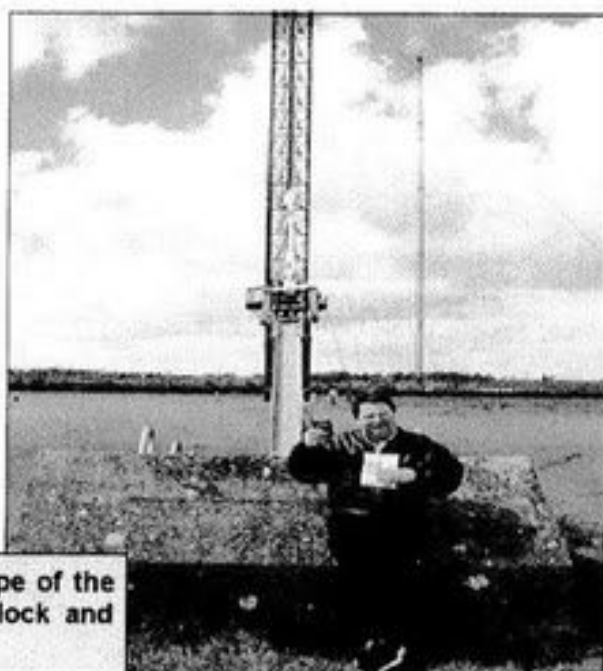
The Rugby Observer printed an article about me (alongside another article about BT's plans to sell off the land at Hillmorton for housing, leisure and industry and the Warners theme park rumour surfaces again). Written by Michael Green it gives a fair 'in a nutshell' account of my initial interest in the Masts. It also mentioned where the booklet was available, prompting Rugby Library to tell me that "every other person was asking for a copy", many sending them overseas to friends and relations and to former GBR employees (now I bet these people have a story or two to tell!)

It looks likely that the Rugby Advertiser will also be doing an interview with me, and The Coventry Evening Telegraph have hinted at a mention, so all the added interest adds up to more people wanting 'Something In The Air'. So I hope you don't mind the small cover charge, but I can't afford to subsidize another 200 copies!!

Just after my booklet went out Station Manager Malcolm Hancock handed things over to Tim Slocombe who is the new guy in charge, Tim, like Malcolm, has been very cooperative as Station Manager, and it was also nice to meet up with Tim at Rugby Radio Station recently.

One minor mast item not mentioned in the 1st edition was a barrage balloon caught in the aerial in the 1940's, it eventually had to be shot down. A couple of people have mentioned the incident so for completeness there it is.

BT (or should I say O2) now have a copy of this booklet in their archives as does Rugby Library and Museum, and Coventry Central Library.



ABOVE Laura Martin and me plus the tape of the proceedings. RIGHT, The Author with clock and booklet sat on a guy rope anchor.

This publication was written between December 2001 to January 2002.  
And is dedicated to 'Mum and Dad'

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**The Tencton Planet ©2002**

If you have any comments, maybe I have missed something, maybe you can see the Rugby Mast lights from your home or have an opinion about the masts?

Feel free to e-mail me at:  
**masts@tencton.com**

The following people have helped me put this booklet together; so many of you have gone far above and beyond the call of duty to be helpful, it is greatly appreciated.  
*'Pete Chambers.'*

Thanks to... Malcolm Hancock Station Manager  
Information is used with the kind permission of BT Radio Services  
BT archives, Rugby Art Gallery and Museum, Visit Rugby Website,  
Coventry Evening Telegraph, Coventry Central Library, Nigel Nicholson, Rugby Council,  
Rugby Tourist Board & Visitor Centre, David Grewcock, David Dalby, Julie Chambers,  
Kevin Monks, Chris Hicks, Holger 'Geri' Kinzel DK8KW, Rugby Town Homepage, Bill  
Sikes, Gordon Williams, CAUS, UFO Lawyer, Mark Hulcombe, Arland & Carol Grove,  
Gerhard Kircher, Denis Murphy, Keith Jebson, Alan Melia, Rugby Advertiser, Rugby  
Observer, Hunts Bookshop, Paul Batchelor, Sophie & Charlotte Pugh,  
and to all the people of Rugby.

And to anyone else who helped with this publication maybe even inadvertently.  
Permission was sort for the use of all original text, where contact proved Impossible  
I have resorted to paraphrasing.

**The information in this booklet has been checked for technical  
Accuracy by Malcolm Hancock, former GBR Station Manager.**  
However the accuracy of an information obtained by the author from other sources, is solely the authors responsibility.

### Giants Of An Age

**When the masts have come down, And the fields lay bare  
When the buzz in the wire, Is no longer there**

**They'll be dark in the sky, where once there was light  
And the glowing like scarlet, will be gone from our sight**

**And these things that we saw, But ignored everyday  
Will be missed when they're gone, In some funny way**

**So thanks for making our world a bit smaller  
Giving help to the sailor ,and the long distance caller  
And here's to place that kept us on time  
Goodbye dear old friend we'll keep you in mind**

*Pete Chambers, January 2002*

## HEART OF THE COUNTRY

As previously mentioned, Carlton ITV show, "Heart Of The Country", (airdate May 2002) included a wonderful item about The Rugby Radio Masts and it's station. In it, Laura Martin (wife of fellow Heart Of The Country presenter Tony Francis), talked to local residents about the masts, showed and indeed tested the atomic clock we saw some interesting old monochrome film of the station; with Laura waxing lyrical with some great lines like, "Giant pin cushion" and "Largest man made structures on Earth". She also talked about my 'pursuit of the odd lights in the sky ' and the fact that GBR was not a bombing target in the Second World War, plus my views on not wanting the masts to come down. I'm pleased to say that my part came out quite well, my only regret is that this booklet was not mentioned. Having said that they did seem to use it a lot for reference, some of the things quoted were very obscure and could only have come from this publication; for example, Churchill's transatlantic phone conversations to America, conjecture on my part, but stated as fact in the documentary, not that I'm complaining of course. It was also interesting to see that the music they chose to run through the item, was Mike Oldfield's Tubular Bells (see page 17) and it worked well.

One thing the show did throw up, in a six Degrees of separation kind of way, was the fact that a certain John Davies was interviewed (a farmer who has masts on his land). Now if you look at page 3 of this publication, you will see I refer to Dolman farm, where my wife often visited as a child. Well, John was, part of the family she knew at the farm, someone she hasn't seen for many years, until he turns up being interviewed in the same programme as her husband, sort of going full circle! One entertaining part of John's interview is when we see one of the huge 820 foot high masts just a few feet from the farm house bedroom windows, and he declares (without a hint of irony) that he doesn't notice it anymore!

All in all a great programme, with tons of information and some excellent images including Laura's own time-lapse videography of the sun going down over the masts and the lights coming on. It's just funny Heart Of The Country and I had decided to produce our respective tributes to the masts at about the same time, and it was nice that our paths crossed doing it!

Below, screenshots from the Kingfisher production Of The Heart Of The Country, *copyright of Carlton Television*. Clockwise (no pun intended). The author on screen, the atomic clock at Rugby, the author again, Laura at the control desk at GBR, and a shot from some interesting stock footage concerning Rugby Radio Station.

