

SKELTON, PENRITH AND THE WORLD

1943-1993



BY
KEN DAVIES

Cover drawing by Eve Hannon and John Bailey

SKELTON, PENRITH
AND
THE WORLD
1943-1993

HALF A CENTURY OF A CUMBRIAN VILLAGE HELPING
A NATION SPEAK PEACE UNTO NATION

BY KEN DAVIES

WITH A FOREWORD BY JOHN TUSA
FORMER HEAD OF BBC WORLD SERVICES



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SKELTON, PENRITH AND THE WORLD

by KEN DAVIES

FOREWORD

by JOHN TUSA

HEAD OF WORLD SERVICE 1986-1992

“Go and visit the relay stations, soon.” That was an early piece of advice that I received from my then deputy, Christopher Bell, when I became Managing Director, External Broadcasting (as it then was) in the Autumn of 1986.

I did as I was told. During the next six and a quarter years, some of my most enjoyable journeys were made to the BBC World Service relay stations, from Hong Kong to Masirah to Ascension Island and most stops in between. Our UK based relay stations were not neglected even if they enjoyed rather worse climates. We knew how lucky we were to have home based stations that could put our programmes out to key areas with such impact.

The process of modernisation – of which Skelton C was the last fruit – was steady, even relentless and kept the BBC at least abreast with others in the competition for world wide audibility.

What I learned from these visits was the importance of these stations; the skill and devotion of the engineers who staffed them and coaxed performance out of sometimes ageing transmitters with loving persuasion; the fine arts of frequency planning and frequency changes, to give the signals the best chance of penetrating the contradictory and shifting nature of the upper atmosphere; the daring skills of the transmitter construction department who delivered so many projects – including Skelton C – on cost and on time.

The modern relay station is a chilly, remote place – it hardly needs the human hand to run it. In the old days, they were populous, active, engaged, often cheerful, and always relishing the fact that they were part of the special camaraderie of the short wave transmitter engineers. Without them and their stations, the broadcasters would never get within a thousand miles of their listeners. They deserve to be remembered and Ken Davies has recalled them and their days in a fitting way. The broadcasters owe them all a deep sense of gratitude.

JOHN TUSA
London, May 1993

ABOUT THE AUTHOR

Kenneth Davies was born in Cricklewood, London in 1927 and educated at the Haberdashers Aske's School in Hampstead and later after the outbreak of World War II at the Torquay Grammar School.

In 1943 he joined the BBC as a Trainee Transmitter Engineer at a local transmitting station in Torquay on leaving school. A year later he was posted to the Skelton transmitter in Cumbria, serving there until 1953, with a break for National Service between 1945 and 1948 when he became a Technical Sergeant Radar Mechanic in REME. In 1948 he rejoined BBC at Skelton on demobilisation, later transferring to the Television Service in 1953.

Ken married in Penrith in 1950 and two of his three children were born there before he moved South to television transmitting stations in South Wales, Brighton, the Isle of Wight and South Devon. In 1957 Ken left the BBC and worked for the Kuwait Oil Company as Marine Communication Supervisor until 1960, when he went to Nigeria to help start up the West Nigerian Television Service in the capacity of Transmitter Supervisor.

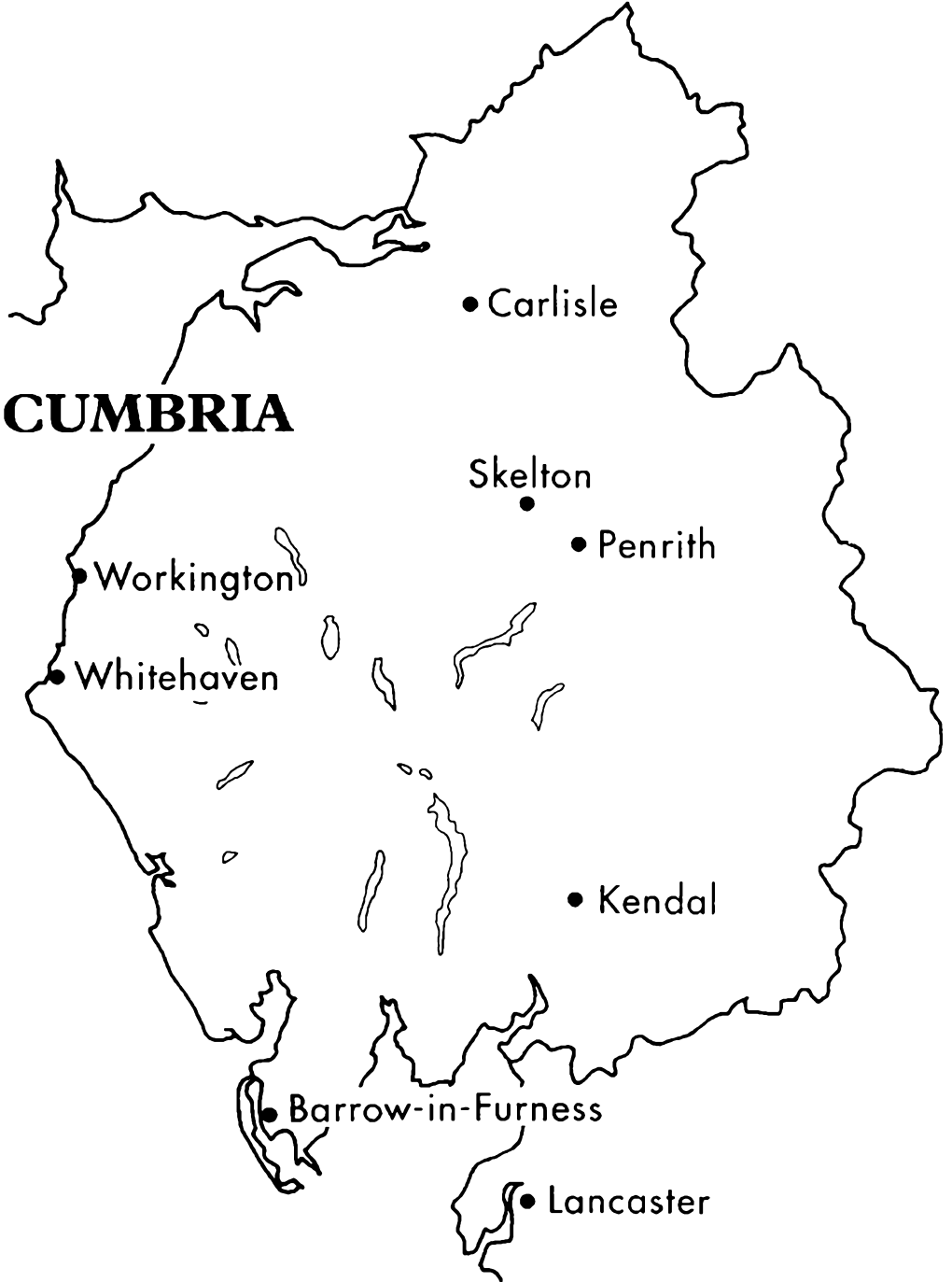
The contract finished in 1962 and Ken obtained a post with the Radio Corporation of America as a Project Engineer on the BMEWS (Early Warning Radar System) in New Jersey, Alaska and North Yorkshire. Later he transferred to RCA's Broadcast and Communications Division in the capacity of Installation Engineer on various projects in Nigeria, Italy, Netherlands and Pakistan. Having had enough of world travel he returned to the UK in 1970 and became self employed as consultant for Closed Circuit Television systems for industrial and security applications.

In 1979 Ken retired from electronic work and built up a small publishing business based on his own output of transport related and semi-technical frequency guides. He published or had published thirty of his own books before retiring from the hurly burly of the publishing world in 1993. He still writes on various subjects where the market is reasonably assured and acts a consultant for organisations and budding authors who require advice on the subject.

Over the years his hobbies and interests have included swimming and sailing, flying (he held a licence as a private pilot in the 1970's), reading, writing articles and books on a number of subjects related to communications and transport, as well as local stories about the North West and Solent areas of England. On the stocks he has three more titles connected with Cumbria and Lancashire which he intends to have published in the next eighteen months.

BOOKS BY THE SAME AUTHOR

1978	UK Radio Station Guide Cards	1989	Safetycall Charts (12 Charts)
1980	UK Radio Station Guide Cards (2nd Edn.)	1991	Sounds Easy (1st Edn.)
1980	The Clyde Passenger Steamer	1991	Air Traffic Radio (Edn. 3)
1980	UK Airband Guide (1st Edn.)	1992	New Forest Airfields
1981	UK Airband Guide (2nd Edn.)	1992	90 Days to Normandy
1982	UK Airband Guide (3rd Edn.)	1992	Air Traffic Radio (Edn. 4)
1983	Solent Passages and their Steamers	1992	Sounds Easy (2nd Edn.)
1983	Companion to the Fylde	1992	Solent Ferries and Vectis Connections
1983	Motorists' Guide to Good Listening	1992	Sandown, an Island's Airport
1984	Radio on the Move (1st Edn.)	1993	Air to Ground (1st Edn.)
1984	Air Traffic Radio in NW England	1993	Ship to Shore (1st Edn.)
1984	English Lakeland Steamers	1993	Skelton Transmitting Station Facsimile
1985	Radio on the Move (2nd Edn.)	1994	Waterbuses to Warships
1985	Air Traffic Radio (Edn. 1 1985)	1994	The Lost Seaport of Titchfield and its Canal
1985	Cumbria's Fringe Benefits	1995	Ship to Shore (2nd Edn.)
1985	Windmill Trails on the Fylde	1995	Air to Ground (2nd Edn.)
1986	Air Traffic Radio (Edn. 2 1986)	1995	Rates of Passage
1987	Wessex Coast Ferries and Pleasure Craft	1995	Cumbrian Built Ships
1987	Radio on the Move (5th Edn.)	1995	History Can Be Fun
1987	UK Coastal Radio Services	1995	Skelton, Penrith and the World





All transmitters on short wave were called "SENDERS", this picture shows one of the original Senders at SKELTON B ex. OSE 9 having some fine tuning on one of its two 100 kilowatt channels adjusted by a Technical Assistant in the early 1950s. This is one of the highly technical duties performed for over forty years by young men such as the one shown here who helped Skelton keep the nation in touch with the World.

PHOTO CREDIT: BBC

SKELTON, PENRITH AND THE WORLD

HALF A CENTURY OF A NATION SPEAKING PEACE UNTO NATION

AN INTRODUCTION

To the best of my knowledge there are two Skeltons in the United Kingdom, two Penriths in the Commonwealth and one World in the Galaxy. The Skelton and Penrith I thought about when writing these pages are the ones in Cumbria, (when I first went there it was just plain Cumberland), and I trust these few chapters will show the close links between the three places after which I call these pages, Skelton, Penrith and the World.

It really started sometime in 1939 when one of the BBC's senior engineers B.N.Mac Larty, who had previously been instrumental in the installation of the original 5GB short wave transmitter at Daventry, published a paper on short wave stations. This was influential when the ultimate decision was made on how to increase the coverage of overseas broadcasts required by the worsening political situation in the late thirties and obvious inevitability of another war.

Daventry became known as the 'Empire Station', but the BBC were woefully lacking in their ability to cover much of Europe and some of the other remote parts of the world. This led to the replacing of the word 'Empire Service' by 'Overseas Service' and at the outbreak of hostilities of the Second World War various established BBC medium and long wave stations had transmitters adapted or installed to provide coverage of the external services transmissions to Europe.

Daventry had only eight short wave transmitters by this time and most of them were of fairly low power. This unsatisfactory situation forced the BBC to install short wave transmitters, or 'Senders' as they became known at stations like Start Point in South Devon and Lisnagarvey near Belfast with a further one at Clevedon south of Bristol.

By about 1940 the BBC had some fourteen of these short wave senders including some extra ones installed at Daventry. Even this was by no means enough and a crash programme was initiated to build four completely new stations which would enable them to transmit on more than double the number of frequencies then available.

The first of the four was built with four high power Marconi transmitters, 'Senders', at Rampisham near Bridport in Dorset with an aerial system designed so that it could have world coverage. This brought the BBC's total number of short wave channels available at any one time up to 18.

These few bleak facts show how important Skelton was to become when it is realised that the second and third stations of the expansion programme were built at Skelton Pastures some eight miles north west of Penrith.

Had these two stations been the same as Rampisham this book might never have been written, but the thing that made this such a momentous step in short

wave broadcasting was that both of the new stations had the capacity to transmit up to twelve different programmes simultaneously on no less than eighteen high power channels ! When they went on the air in 1943 the BBC's short wave transmission capability had been doubled, to coin a phrase 'at a stroke' !

Physically the two stations are on the same site and spaced about a mile apart. The first to go on air in the June of 1943 was OSE 8 (known throughout the BBC as "Ossie Eight") and short for Overseas Station Extension of Daventry number eight. This station had six 'Senders', numbers 61 to 66 and each of 100 kilowatts power output. All were of Marconi design similar to those at Rampisham and installed so that they could be switched to any of sixteen aerials all beamed on Europe.

The second station OSE 9 followed on the air with six ST & C designed 'Senders' (71A & B to 76A & B). These were different in that they could each transmit a programme on two channels at once if required to do so which in fact was most of the time. A slightly more complex aerial system was installed for OSE 9 as most of the programmes transmitted from it were destined for parts of the world beyond Europe.

For most technical purposes the two stations were separate, although administratively they were treated as one and after a year or so most of the technical side of running both stations came within the capacity of the majority of the staff.

A few hundred of the thousands who worked for the BBC in the early years of World War II took part in the planning, building and maintaining of the station that was to form the links between Skelton, Penrith and the rest of the World.

By the building and running of what was then the largest and most powerful broadcasting station in the world these links were, and are still being, maintained by many thousands of people, some of whom have never heard of Skelton and others who still have the closest possible ties with the area.

It is for all of these good folk past, present and future we have gathered some of the stories about a little known radio station so that those who had any connection with it will have their link recorded before it is too late.

A full blooded technical story of the Skelton Transmitting Station would be incredibly boring to all but a few, who are sadly becoming fewer. So, these chapters are a collection of stories, some semi technical, some serious, some sad and some very funny in their own way and are brought together to demonstrate how the needs of a country fighting for its existence fifty years ago have developed and influenced an area and the people living there in a way never anticipated half a century ago.

Originally it was my intention to call this 'One Man's Skelton', but such a wealth of stories have come to light that to edit them into something to interest the many has been a daunting task. The Station itself is now manned by those who won't mind being labelled the fourth generation of 'broadcast engineers'.

The first were the real pioneers, aided and abetted by the second, those of my generation. We were replaced by those who saw the many changes that took place after the war years only to be replaced by the present generation with a whole new range of skills required to do the same job with modern equipment.

The thing we all have in common is that those links forged by our predecessors half a century ago are still being maintained and in equally good hands, doing the same basic job, that of helping a 'Nation to speak peace unto nation'.

Penrith has absorbed the BBC staff and families and their social and family ties grow stronger every day. This is demonstrated by the fact that in the old days anybody from the BBC stood out like a sore thumb, but now you can't tell the difference. Many Penrithians of today are children and grandchildren of the original Skelton staff who in their own right became Penrithians.

Now, fifty years after the Second World War we can travel around the world in a few hours and those of us that do, can hear the BBC's transmissions in all four corners. Skelton played and still is playing a major part in the technology that makes this possible, real evidence of the strength of the links forged in 1943 on Skelton Pastures, near Penrith!

KEN DAVIES
Isle of Wight, 1993

SKELTON, WHERE'S THAT?

At the ripe old age of sixteen on the Thursday before Good Friday in 1943 I sat in a tiny office of what looked like a war time street air raid shelter talking to Les Whitehead an ex Huddersfield 'copper'. "Well, Mr. Davies" he said, "it would seem you know something of physics, you can do morse at sixteen words per minute, you can add and subtract, you speak English and you can swim. We can use you. Can you start work on Monday?"

Oh how good and grown up being addressed as "Mr". for the first time made me feel ! When I said " If my parents let me, the answer will be yes" he replied "Well that's all settled then, let's go for a swim". So, for better or for worse that is how in the space of half an hour the BBC got me as a 'YIT', (Youth In Training), at the small 'H' Group transmitter at Torquay, For Les Whitehead was the Engineer in Charge there at that time and for me my first boss and a very important person who had to be obeyed.

For a whole year I felt very important as I learned the language of broadcasting, made the tea, swept the floor and was allowed to touch the equipment, under supervision of course, and was even sent to Exeter and Plymouth on a couple of short relief duties. Then I was hauled into the boss's office and put through what was to be the first of many annual interviews. By this time we had a new boss, Les had been posted to pastures new and had been replaced by a Mr. Tonkinson from Bartley. To me he seemed a much older and more severe than the fun loving Les Whitehead.

However, I must have been sufficiently above what was considered to be acceptable because 'Old Tonks' told me I had been made a PTA, (Probationary Technical Assistant, Unestablished), and was to go on that mysterious event known as the A1/B1 course. This was a three month intensive training course the first month of which was to be at the Maida Vale Studios in London and the last two months at the Transmitter at Droitwich.

My most vivid memory at Maida Vale was the dear old doorman who struggled up to the third floor where our course was being held to warn us of imminent danger from an approaching Flying Bomb. He usually seemed to arrive breathless at our classroom door just as the blooming thing exploded nearby and woke up those at the back of the class, so nobody took a lot of notice of him.

All those on this first part of the course came from a variety of stations, transmitters, studios and recording centres and completion of the first month was when we were split up into groups selected according to the type of station we were destined to go to if we completed the course with satisfactory marks. On arriving at Droitwich we got down to learning the secrets of transmitters and their control. Our instructor was Charlie Buckle, later to be EIC of Holme Moss TV station. Charlie will never know how much I owe him, he and he alone managed to stuff enough knowledge into my thick head to get me through that course with flying colours at the end of which I was promoted to TA3, (Technical Assistant, grade III, unestablished), and posted to Penrith which I was reliably informed by everybody who had never been there was the BBC's punishment station.

Returning home for a short break prior to joining my new station I proudly told

my family and friends where I was to be sent to. At first I thought Penrith was in South Wales, (my ex. geography master would have killed me or given more lines than I could have written, had he ever found out), but most of my friends thought it was in Cornwall and said how lucky I was to get a posting so near home. In fact this all happened in time of war when like so many others, BBC staff were sworn to secrecy and made to sign the Official Secrets Act. Travel was definitely discouraged if one believed the notices and placards all over the place which said "Is your journey really necessary?" and we were not supposed to tell others of the actual station we were sent to even when we knew.

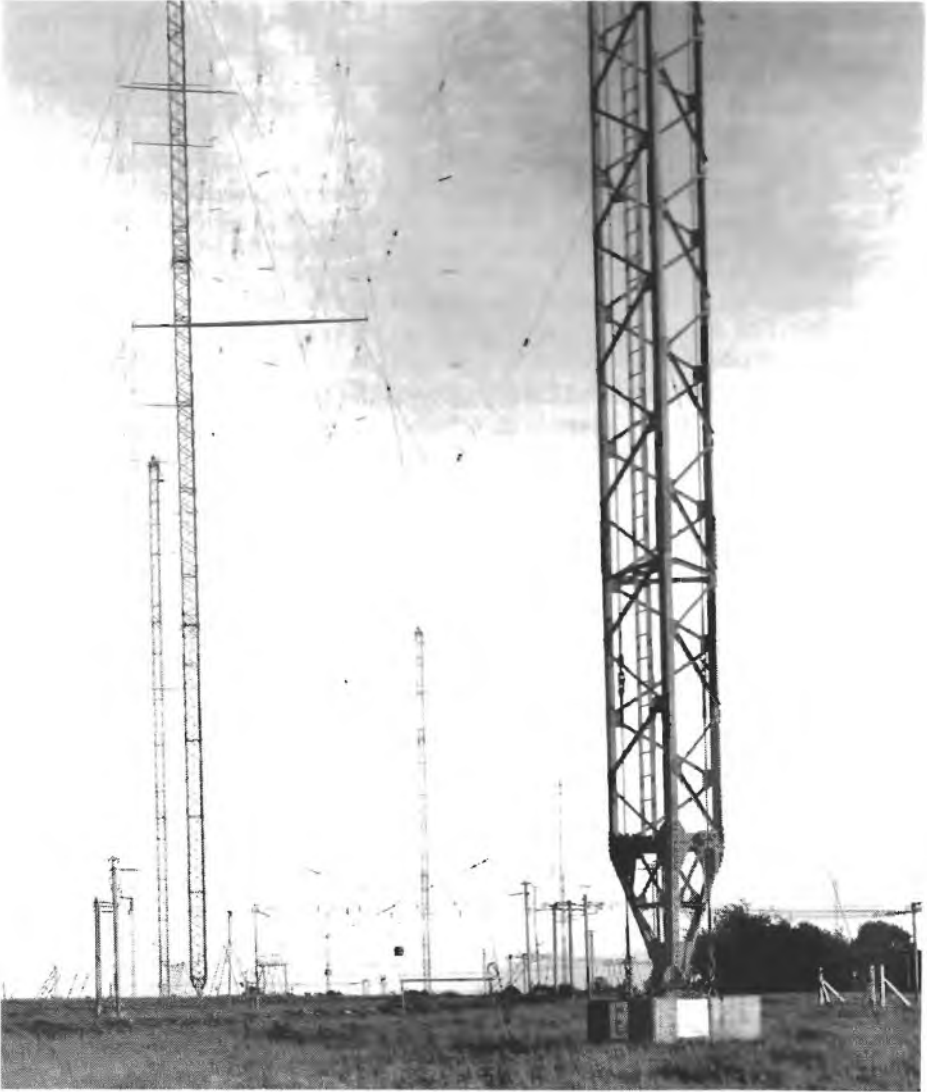
THE CULTURAL SHOCK

My journey to Penrith from Newton Abbot Station near my home in South Devon took about twenty hours in those days involving the inevitable change at Crewe and another change onto a slower than average train at Preston at one in the morning. At that time I had never been further north than Droitwich and as the train stopped at every station north of Preston I couldn't understand the strange accents of the platform staff who all seemed to wander up and down the platform calling out strange names like Bay Horse, Carnforth, Tebay and Shap waving a very dim lantern which was supposed to stop passengers from pushing him onto the lines, or so I thought.

My arrival at Penrith Station in the wartime black out, at four AM on a February morning and not knowing even which way I was pointing was not helped by the blank refusal of anybody to tell which way to go to find a way of reaching the BBC station. The best advice I got was to go to the Police Station and was told that if they didn't lock me up they might help. That simple instruction wasn't really much help either as to find your way from the railway station to Hunter Lane Police Station on a pitch black night when you don't know the town was no easy matter.

However, not without some difficulty and about an hour later I did find it and with some trepidation I entered and showed all the papers and identification I had. At this point my luck changed as the duty sergeant was the father of one of the locally born TAs at Skelton and he produced a very welcome cuppa and allowed me to rest in a cell, which he didn't lock up, promising to take me to his home, give me some breakfast and introduce me to his son John when he finished duty at seven. John would be able to take me to the station on the shift bus when it left Penrith at eight which should put me right.

That most hospitable of persons was the first Penrithian I had met and sadly died in the late eighties. Sergeant Codling will long remain in my memory, a fact that I mentioned to his son John who worked with me at Skelton and again some years later at the North Hessary Tor TV transmitter ending his time with the 'Beeb' as Engineer in Charge there. I visited him there a few years ago just before he retired and although I think he did miss his Cumbrian home he was well satisfied that he would probably be able to end his days suffering from that dreadful affliction, 'Golf', without too much pain.



The end of a short journey for the programme from London to **the aerial** via one of Skelton's senders was across the fields along open wire feeders **to the aerial** itself. As many as three aerials were sometimes suspended between **any two of the fifty masts** on the site and formed the starting point of the transmissions **journey overseas** via one or more bounces between the earth and the ionosphere. **This journey could** be anything from a few hundred miles to 12,000 miles to the other side **of the earth**. The bottom of each mast rested on a steel ball which enabled the mast **to have some flexibility** in high winds.



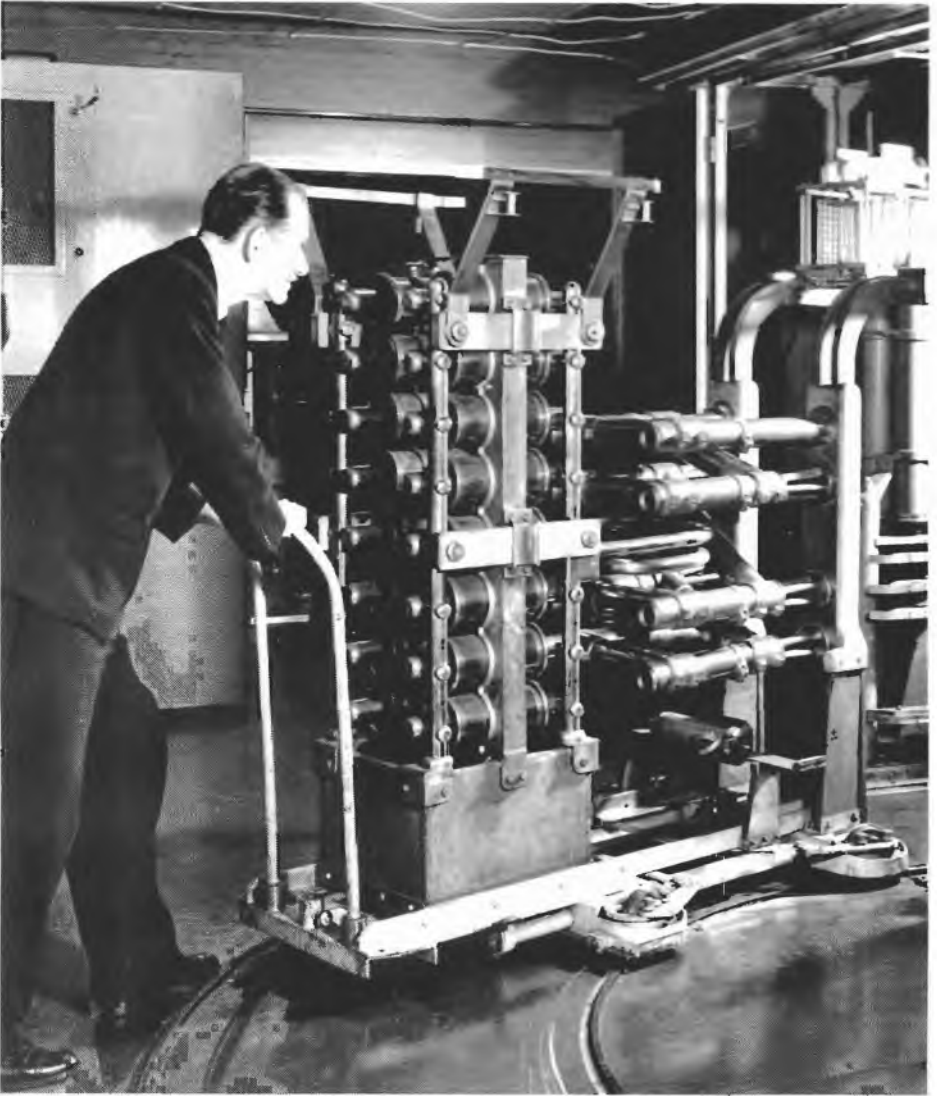
Skelton A building as it was in the very early days as OSE 8 when everything was austerity.

PHOTO CREDIT: ERIC PICKERING



The coils shown in the photograph on page 12 were placed in the centre cabinet of the three shown in this overhead picture of Sender 65 at Skelton A (then OSE 8). The differences in the senders at Skelton A (when OSE 8) are easily seen when compared with a similar view of sender 75 at Skelton B (when OSE 9) on another page.

PHOTO CREDIT: KEN SHEPHEARDSON



Everything about high power transmitters has to be large and Skelton A's were no exception. One of the bits of equipment that enables frequencies to be changed is the type of coils installed, they differed in size and the number of turns for each waveband. The main output coils for the Marconi senders at Skelton A were so large that they were mounted on trucks that ran on rails! This photograph shows how these rails enabled technicians to change them by doing a type of shunting operation when a waveband change was required.

PHOTO CREDIT: BBC

The first glimpse of the Skelton site from the shift bus was of what seemed to be miles of aerials stretching across fields of sheep with the Pennines forming a backdrop to the east and the Lakeland Fells to the west.

One's arrival at the station, especially for a seventeen year old virtually straight from a 100 watt local station was like walking into a future Tower of Babel. Grey transmitters with highly polished brasswork, glowing valves five feet tall and strange foreign tongues blaring out of the monitor speakers gave a Kaleidoscope of impressions of which the main one to me was 'I'll never get to know anything about this lot'.

The office formalities were few and I was passed over to a Mr. Jarvis who was the so called 'On Station Instructor'. He had been an engineer at the Alexandra Palace Television Transmitter before the war and was now given the chance of seeing that new boys like myself were introduced to the station in a way that left the staff to do their allotted tasks without interruption and also ensure that the training we had been given on our A1/B1 course was continued.

However, first things first and I was given a list of addresses in Penrith where I might be able to find digs, or if this was not possible temporary accommodation could be made available in the 'hostel' which was a collection of sparsely furnished wooden barrack like huts a few hundred yards to the south of what was until recently Skelton 'B' / OSE 9. If this was chosen you could eat in the canteen and use the shift bus to go into Penrith if you were off duty.

I chose the hunt for digs and luckily found a shared room in the then Castle Temperance Hotel at the top of Castlegate. The Dinsdale family who ran this establishment looked after those of us living there like one of their own. I soon learned what Temperance meant and in this case seemed to apply to the bricks and mortar not those who lived in or ran the place.

Among other well known members of the Skelton Staff who also had rooms in the Castle Temperance at that time were the late Jim Price-Jones who later married Janet Bell the manageress of the BBC Fernleigh Hostel, (opened at a later date to cope with the shortage of digs in and around Penrith), Jim Hubbard, John Balston who was later to be EIC at Skelton and Harry Salisbury who absconded to the ITA and became their North Regional Engineer. Adam Dinsdale's eldest son Wilf joined the staff on the admin. side when he came out of the Navy, so the old 'Castle Temp' had a lot to answer for at Skelton.

After a few weeks indoctrination I was put on shift relief duties at OSE 8, now Skelton 'A', mainly working on Sender 65 which had the merit of being nearest the canteen. The 100Kw Marconi SWB 18 transmitters, known on short wave stations as Senders, were wonderful pieces of radio equipment and a gentlemen's transmitter to operate. Their performance was entirely predictable and because of the demanding schedules with frequent wave changes, never boring to work on.

The next two years before the army caught up with me were full of interest at work and the beginning of what was then a typical youthful social life made up of an increasing interest in cinema attendance, beer, dances and local lovelies not necessarily in that order. The BBC had no club rooms of their own in those early years, but rented the first floor rooms above the YMCA. These were on the western side of Sandgate and very handy when waiting for the shift bus after an evening

on the town, or just a place to gather and play cards or table tennis. One could hardly say they were lavishly equipped, but there was a radio, a few comfortable chairs, table tennis table, dart board and dozens of free copies of Radio Times to which we were all entitled to one ! At least it was a place where we could go to get out of our digs when off duty and no one seemed to complain then.

The run up to the end of the war was an interesting period and like many others of my age group I wondered what was going to happen to me. I knew I was destined to a period in the forces. The advice given by one of my colleagues who hailed from Barrow was when you register don't give your home address as Torquay or they will post you to Carlisle. Be sensible and give Penrith as your home and they will send you back to Devon ! That person deserved to become an SME in later years for he was right, I did what he said and was posted to Cornwall which in my book was classed as a miss near enough to be a hit and all right by me. Nice one Matt !

I returned to Skelton in 1948 after two and a half years in the army to find a number of changes. A hostel had been opened in a big house 'Fernleigh' at the bottom of Lowther Street in Penrith. This had four bedrooms each sleeping eight, a large and comfortable lounge plus a large paneled dining room.

I took up digs in there as it wasn't too far removed from the barrack life I had been living for the two years just past, it was cheap, near the centre of town and quite pleasant to live in. There was a garage where the plutocrats amongst us could work on their motor bikes and lesser mortals like myself could leave our bicycles.

One of the more remarkable features of life in that hostel was the length and professionalism given to games of Pontoon. It was not unknown for some to go on for several days, and nights, with players joining and leaving as shifts came and went. One, who shall remain nameless because I believe he is still around, boasted one Tuesday morning that he had been playing since he had come off shift on Sunday morning and was five bob up. Now he was giving up while he was ahead and going to the pub ! Tuesday being Market Day had the pubs open all day which offered great temptation to shift staff without much to do between duties and in any case two days of pontoon was thirsty work. If there are such things as ghosts one must still haunt Fernleigh wailing "Twenty two, I've bust ! Is the 'Robin Hood' still open?"

Another popular occupation was to try and have half a pint in every one of Penrith's forty two pubs. As far as I know this was not achieved, but it was observed that Penrith shops did pretty well with sales of Alka Seltzer and Aspirins.

Life in Penrith wasn't all Cigarettes, and to quote a popular song of the era, Whisky and Wild Wild Women for on many a Summer's day groups of us would go to Pooley Bridge and have a lazy afternoon rowing up and down Ullswater on one of the excellent skiffs rented by the BBC Club for member's use.

In those days Penrith didn't have an indoor swimming pool, but those who liked a dip joined the Penrith Swimming Club which had changing rooms, and a diving board on the bank of the River Eamont opposite Brougham Castle. There was a dedicated group who made it 'their thing' to have a swim every day of the

year and that really meant every day ! It was known for us to have to stride across snow, plunge in, a quick few strokes across the river and back for a hot drink prepared by wives or girl friends who were convinced we were crazy anyway. Crazy we may have been, but I can vouch for the fact that I have never been fitter in my life and we all reckoned that we were remarkably free from colds, coughs and sneezes and attributed this to our daily dip.

Then there was the more formal annual dance, usually held at the Royal Oak at Keswick, which was always popular and was an occasion when one could show off wives or girl friends and usually meant that the weeks prior to the event forced one to negotiate hard for a shift swap if the date didn't suit your slot on the rota. On these occasions it was incumbent, or so we thought, for everyone who was unattached to have a dance with the EIC's daughter. Poor Audrey, I'll bet your feet really suffered.

NATION SHALL SPEAK PEACE UNTO NATION

The next few paragraphs are by way of being in recognition of the end of an era in more ways than one. From the moment Skelton opened to the end of the war it actually played an important part in helping to bring the hostilities to an end.

In the build up to 'D' Day and in the last few months of fighting in Europe, Skelton 'Senders' transmitted code messages to the resistance movements. These transmissions were highly secret and staff were not encouraged to even talk about them, especially when off duty.

There were hundreds of transmissions over these last few years and those in English which we obviously heard made no sense to us. They were not without their amusing side when heard out of context and one in particular which became the subject of ribald comment from those on duty when transmitted was the one that got us all laughing whenever we heard it. The one in question as far as I can remember it now was repeated several times and was "*Frank, Brother Dick wishes to meet your sister again.*" The cleanest of the comments we made about this seemingly incestuous requirement at the time was "I bet he did" and little drawings of desirable young ladies appeared in odd places all over the station with captions like "Is this Frank's Sister?" Needless to say anybody called Frank on the staff had to put up with a lot of flak.

However, on the serious side, the station had several messages after the war to thank them for this vital bit of communication that really helped bring the fighting to an end and give the BBC a chance to get back to the object expressed in its motto of nation speaking peace unto nation. It is a small part of Cumbria's contribution to making VE Day possible.

The two years following the end of World War II were really quite remarkable and the BBC's motto came into its own. When one considers the average age of the staff at Skelton was probably under twenty-five and mostly recruited straight from school, it is a real accolade to Messrs Williams and Hayes who as Engineer in Charge and Assistant, together with their ten Senior Maintenance Engineers (SMEs), got this station which was then on the frontiers of the science of broadcasting up and running with the efficiency and lack of fuss that is so obvious with hindsight.

One of the things that is not generally realised was that although broadcasting was barely past its twenty-first year when Skelton was built, overseas broadcasting was even younger, having really started at what was then called the Empire Station at Daventry less than a decade before. For it was in 1942 that the first steps were taken in transforming those acres of Skelton Pastures into what was, and fifty years later still is the largest and most powerful broadcasting station in the world. What this meant is that those of our generation who were the great proportion of staff that manned the station when it first opened, while not actually being pioneers of broadcasting could certainly claim to have been taught all we knew by those that were.

In the craze imported from America for initials to designate anything of importance, stations which were to become extensions of Daventry became known as Overseas Station Extensions or OSEs. In fact additional transmitters, or Senders as

the short wave transmitters were called, at Daventry formed the first 'OSE' and was called OSE 2 although not generally referred to as such.

Some of the medium wave transmitting stations had overseas transmitters modified from the spare capacity from one of the Regional transmitters closed down on the outbreak of war and served the Overseas Service which had a growing and important wartime role to play.

Start Point had a 100 Kw SWB 18, originally destined for an overseas customer, installed in 1940 which became 'Sender 22' and was designated OSE 4 which enabled a skeleton service to be provided in case of Daventry being put out of action. This never actually happened through enemy action and Start Point was able to back up by adding to the extent of the service until OSE 3, a new short wave station being built at Rampisham near Bridport in Dorset was commissioned in 1941. This station was also equipped with four Marconi 100 Kw SWB 18 transmitters and was not unlike those at Skelton A, OSE 8.

OSE 5 was what was then the World's most powerful single transmitting station and transmitted on Long and Medium Waves from Ottringham near Withernsea in Yorkshire. Actually this claim about the power was a bit of a cheat as the station really consisted of four separate 200 Kw transmitters with a common drive and programme source with their outputs combined in an additive fashion to feed a common aerial system.

OSE 6 was the designation given to the Medium Wave transmitter at Droitwich and a short wave Sender, No. 51, was installed at Lisnagarvey, near Belfast to become OSE 7 and as we know both OSE 8 & 9 were sited at Skelton.

The last of the series, OSE 10, was built at Woofferton near Ludlow in Shropshire and different in a number of ways as it was in effect a 'Lease Lend' station equipped with American RCA 50 Kw. transmitters, a BBC designed aerial system, manned by BBC staff and transmitting mainly Voice of America programmes. It was also used to carry BBC originated programmes when not being used by VOA, or when anti jamming schedules dictated it.

PEACE BREAKS OUT

As I have mentioned before, for staff who arrived at Penrith to join the station at Skelton it was by way of being a cultural shock. The shock was not confined to the staff either, as it must also have applied to the people of Penrith, who having survived a few hundred years of peace after harassment from raiding Scots were having to adjust from an influx of service personnel and hundreds of school children evacuated from Newcastle Grammar School. Then in the middle of the war there was an added strain caused by the influx of some two hundred and fifty BBC staff who all had to be housed, fed and absorbed into the community.

It was realised that the service personnel and the Novacastrians were purely hostilities only, but the BBC staff looked then, and were to be of a more permanent nature. For a mainly agricultural township of about nine thousand this must have been a traumatic shock. However, it wasn't long before any problems were overcome and it was by no means unusual for local girlfriends, many of whom

were soon to become staff wives, to be heard discussing the BBC shift rotas and their effect on the social lives of the area.

There was a short period just after the War when staff returning from the forces, were by law reinstated into their pre service job as they were promised when called into National Service. This caused complete confusion and a serious overmaning problem at the station which was to affect nearly everybody in some way or another. It was also the point where the difference between being established or unestablished staff became of paramount importance to the individual. Pre War and Established staff had no real problem on reinstatement, they were there to stay come what may. However, it was the large numbers of unestablished staff, like myself who were presenting the Corporation with a King Size headache, not to mention the uncertainty for the individual.

There was an inevitable run down of Wartime only services and the expansion we were to see some five years later when the demands of the revived Television Service and the outbreak of what we now call the Cold War could not be foreseen. An example of this state of affairs was seen by me on my return to Skelton after my time in the services when nearly every shift position was 'double banked'.

As nice as it was to be paid for a full day's work when it was only possible to do half, the situation was obviously going to have come to an end and the uncertainty of one's own position was unsettling to say the least. When the decision was made of when and how this was to be effected was announced the rush to the notice board had to be seen to be believed! In the end it was done on a date order basis. Not the best method, but probably the least unfair. Simply, all those who joined after a certain date were to be made redundant and those who joined before that date were kept on and offered the chance to become established staff.

The grade of YIT was done away with and pre War grade D redesignated Grade C-. The Technical assistant grades were rationalised into PTA, Probationary Technical Assistant, and TA II & TA I grade D. Promotion from one Technical Assistant grade to another depended on your annual interview and EIC's report. Promotion further to grade C- and above was dependent on two events, passing an interview for which one had to be recommended by your EIC and also the passing of an examination at the end of a three month residential course at the BBC Training School at Woodnorton, near Evesham.

In many ways I was lucky to arrive back when all the confusion and changes were taking place for I eventually found myself on the right side of the deadline date when it was finally published. This enabled me and others like myself to get extra experience by doing what all service training encouraged one not to do, volunteer ! Those of us who survived the redundancy realised that this was 'the first few months of the rest of our lives' and all lay before us.

To fill in time, try to look busy, avoid boredom and keep out of mischief we volunteered to learn how to start the diesel standby plants, took the opportunity to work in the Control Rooms, set up the VFO drives and check the frequency and were able to gather experience in the operation of the Marconi SWB 18s at OSE 8 as well as the twin channel Standard Telephone CS 8s transmitters at OSE 9. All this we did while there were so many redundant staff on each shift we were able to use the extra time to our advantage.



A technical assistant with the responsibility of monitoring the Sender's output during transmission is seen in this photograph at the control desk where he can control all aspects of performance including sound quality and power output.

PHOTO CREDIT: BBC



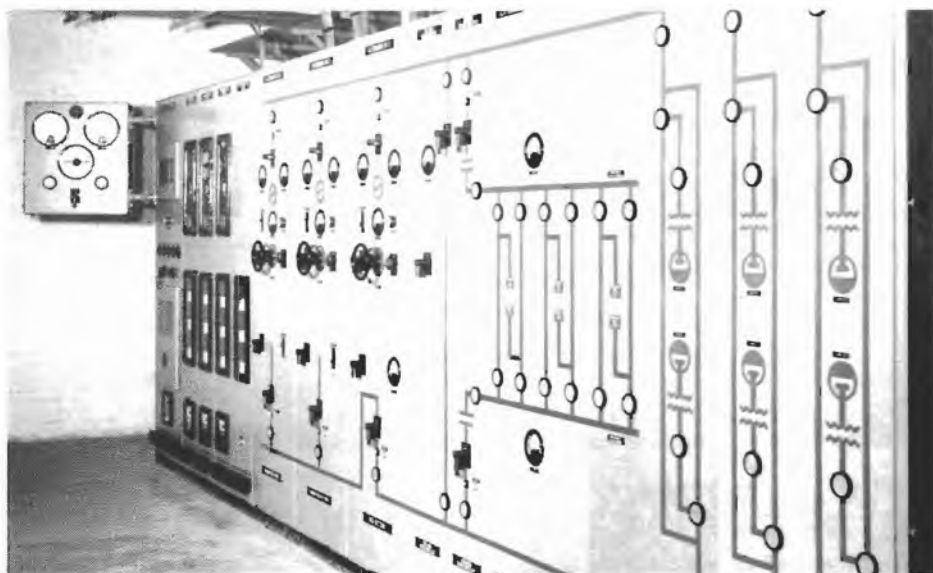
Sender 75 as it was in the now dismantled Skelton B (OSE 9). The photograph here would have been taken in the mid or late fifties and clearly shows the two sets of aerial feeders that carried the output of the Sender out of the building through the switching tower behind the building, across the fields to the aerial selected by the operator in accordance with the schedule. The four barrel-like objects on the top of the Sender are filters inserted in each leg of the feeder to prevent radiation of interference to TV reception in the district.

PHOTO CREDIT: T. J. PICKERING



All radio equipment need electrical power to enable it to work and Skelton's original Senders needed many thousands of kilowatts. When all was well this power came from the public supply, but in an emergency a limited supply could be taken from three diesel driven alternators which enabled a reduced service to be available. This picture shows one of the two engine rooms of which there was one at Skelton A and one at Skelton B. Each of the 750 HP engines was started by compressed air and had to drive a 500 kVA alternator.

PHOTO CREDIT: BBC



Once the diesel alternators were up and running mechanically they had to be either connected to back up the the mains supply or controlled electrically so that they could supply the Senders. The senior engineer on shift was responsible for directing the whole operation from the control panel shown in this picture.

PHOTO CREDIT: BBC

The two great advantages for those of us in this lucky position were that the extra knowledge and skills speeded up promotion to the TA I grade and gave us greater flexibility on shift work, especially when applying for a shift swap as a self arranged exchange of duties was requested. To do this one had to get the permission of both SMEs who would obviously favour the situation where if he accepted someone from another shift it would be a person who could work a variety of positions.

There was a price of course, the dreaded aerial work. On a bright summer's day this could be quite pleasant, but Cumbria isn't known for it's sunshine records. In those days before the construction of paved paths and use of cycles it could be dangerous, demanding and even frightening work.

WORK IN THE WILDS OF SKELTON PASTURES

There were a number of operations demanded of these essential, if luckless engineers and they were divided into four very distinct operations, two on the frame just to the rear of each transmitter building and two at the site of the aerial itself.

At OSE 9 all the B channels of the CS 8 transmitters had to be switched from one aerial to another on the oval frame that surrounded a six level switching tower if a change in target area of the transmission was scheduled. This operation was known as 'Switching' and normally only applied to the B channels as the A channels of the same transmitters were all connected to a remote control switching tower within the frame at the rear of the building which was operated from an interlocked panel adjacent to the Sender itself.

Another manual operation was very similar to switching and known as 'biffing' which was carried out on another portion of the same frame. This consisted of switching the feeder line from the aerial to a designated Sender position on the frame. This was achieved by making it possible to have the feeder available in one of two positions. It was in effect split, or bifurcated, hence the name 'Biffing' for that particular operation.

The other two routine operations had to be carried out at the base of the aerial itself and known as 'reversing' and 'slewing' and were required at a change of waveband or programme target area. A brief description of the aerial system will make it obvious why these operations were necessary.

Each aerial was designed to work on a particular waveband and was highly directional. So, for instance an aerial designed to work on the 41 metre band might transmit its programme due west, or 270 degrees. This was achieved by having two vertical curtains one placed a quarter of the wavelength behind the other. One of these was connected to earth and the other driven from the transmitter via the feeder line rather like the old familiar early television 'H' aerials.

The effect of this was that the earthed curtain acted as a reflector and directed the transmission forward in the desired direction from the driven curtain. The problem was compounded in that an aerial array was required for each waveband

used in any required direction and at Skelton these were spread over hundreds of acres and the furthest one from the transmitter building for a particular transmission could easily be over a mile away.

The whole arrangement was constructed so that by using specially designed poles with clamps on the top and moving the feeder from one position to another the function of each curtain could be changed. It was possible to remove the earth strap from the reflector and place it on the driven elements and vice versa. This had to be done manually and enabled the direction of the transmission to be reversed so that the aerial now transmitted on 90 degrees, due east. Hence the operation of reversing.

In order to increase forward radiation and achieve directivity the construction of each of the two curtains was identical and consisted of two parallel stacks of dipole aerials each fed from a common feeder line the centre of which was in turn fed from the feeder from the transmitter.

This arrangement ensured that each of the two parallel parts of the curtain were fed with equal portions of the energy from the main feeder and this energy reached each portion at the same time. All this added up to better transmission in the desired direction. However, construction was such that by having the facility at most of the aerials that enabled the two parallel elements to be fed off centre with the effect that one of the elements got fed with the energy a little before the other. The effect of this was that the maximum energy was not transmitted straight ahead but at an angle to one side or the other depending on which element it was arranged to feed first.

In other words the direction of radiation had been slewed to one side or the other. Hence the operation of 'Slewing' which was a useful property as ten or twenty degrees difference in the direction of transmission at source could mean a different continent could be selected as a target reception area on the other side of the world.

The state of the art in short wave aerial design fifty years ago was such that these essential operations had to be carried out manually and it can be imagined what the work load was like with eighteen transmitter channels and over thirty aerials having to be constantly re-arranged throughout every twenty four hours.

Sometimes it was even so hectic that four or five operations had to be carried out on one or more of the remote aerials in the space of an hour. When faced with this situation the poor operator had to remain out in the field for the whole of that time as because of the distance involved it would not be possible to return to the building. In the summer this could be quite a pleasant way of working, but in a gale and freezing sleet storms it was diabolical.

I have said earlier that this job was not popular, especially in the winter months when because of the manual nature of the operation there was a very real danger to staff. It says volumes for the skills, dedication and care with which all these operations were carried out largely by young inexperienced staff that as far as I know there was never a serious accident.

After the War things improved slowly. This was most noticeable on aerial work when 'Black Out' restrictions were lifted and the mast head lights plus a few strategically placed lighting posts were installed. A network of paved paths was laid

from the buildings to the majority of the arrays which enabled bicycles to be used which certainly made the tasks of the aerial switching operators easier.

Other changes were taking place inside the buildings which in some ways made work easier, but were also designed to be more economical with manpower. Rationalisation and Automation were not words that had been accepted into the language at that time, but with hindsight the thin end of the wedge was entering the system.

PEACE AND COLD WAR

Up to the end of the forties each of the Senders, (transmitters), had a control desk, programme input equipment, monitoring facilities and two sets of telephone communication, one with the control room and the other through the internal automatic system with all the other offices and technical positions at both OSE 8 and OSE 9. There was also that important tannoy system whereby you could call anybody anywhere on the station in an emergency. All these facilities were installed in kiosks and were built side by side, two to a transmitter hall and facing the Sender they controlled.

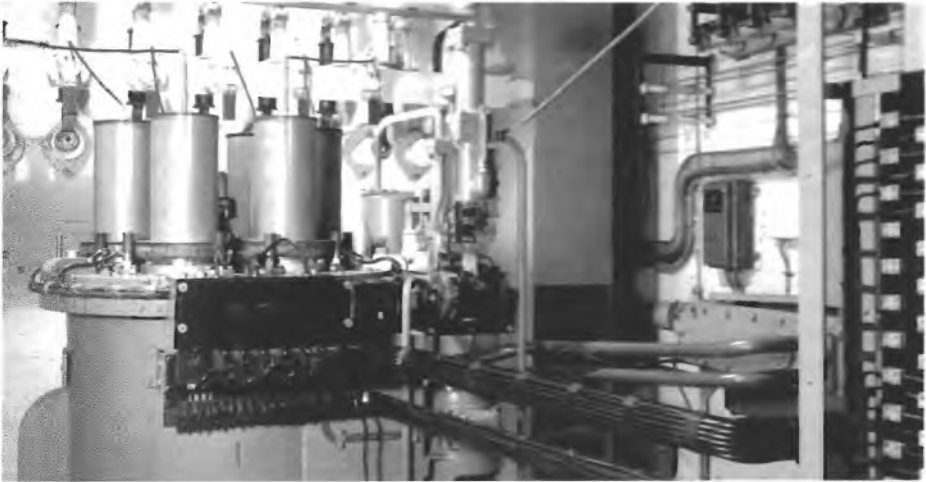
Other changes were taking place inside the buildings which in some ways made work easier, but were also designed to be more economical with manpower.

Most of the programmes to be transmitted from Skelton were originated in the studios of Bush House in London and those that came from other sources were all routed through the Control Room at Bush House anyway. So, as far as Skelton was concerned Bush House was the source and the six 'music' lines were needed as it was possible, and frequently so, that the schedules demanded that there were up to six different programmes to be transmitted simultaneously.

It was entirely dependant on the scheduling requirements which line carried what programme and to complicate matters which Sender was used to take a particular programme. This was because that in spite of great flexibility in local arrangements there were limits to which a Sender could be used to serve any particular part of the world. These limits were set by the availability of an aerial which could transmit the programme in the direction desired and the frequency bands available on a Sender that could be switched to the aerial suitable for that service.

These complicated schedule requirements and the 'state of the art' facilities were the factors that dictated not only the frequent aerial switching operations described above, but the many changes of frequencies, (wave changes) that had to be made on the Senders to enable the schedules to be followed.

It wasn't even simple in Skelton's control rooms as the six lines that all terminated on the apparatus racks there had to be manually switched for each time there was a change of programme to be carried by a particular Sender. These changes were carried out with plugs and cords according to the predetermined schedule in a manner similar to the one required on an old fashioned telephone switch board.



Well protected enclosures are needed to prevent personnel from the high voltages required to run all electrical equipment. Skelton's Senders needed 10,000 volts DC and the Mercury Arc Rectifier shown in this photograph is typical of equipment needed to convert the 11,000 volt AC mains supply to controllable DC supply that could be fed to the output stages of the Sender by the operator at the control desk.

PHOTO CREDITS: BBC



All transmitters (Senders) need three things to enable them to transmit a programme. The first of these is electrical power, much of which was necessary to drive the valves which were in some way like a large electric lamp in that they had filaments to light up. They also needed high tension voltage at 10,000 volts. However, the spectacle that caught the eye was the valve filaments which had to be driven by sturdy generators giving 30 volts at 2,000 amps ! At Skelton B three of these generators were needed for each Sender as shown in this photograph.

PHOTO CREDIT: UNKNOWN. AUTHOR'S COLLECTION

Every change had to be checked and often there were eight or ten of these to be carried out within a twenty second period. When this was so, great concentration was required by the operator to ensure that each change was carried out correctly, on time and that the Sender was switched to the scheduled programme. The operator on the Sender had facilities to check this against a schedule for his, or her, particular Sender and this was a vital back up which reassured the Control Room operators who had become very skilled at this tricky job.

Right up to the 1950s it was found that female staff took to this job like ducks to water, in fact in wartime at most stations many of the Control Rooms were almost exclusively manned by women. At Skelton when some ladies were operating Senders it was always Sender 72 at OSE 9, or 62 at OSE 8 which were the ones nearest the Control Rooms in each building that were given female operators. This was to allow a quick relief for the Control Room operator to be available should it be needed in an emergency and also because there were more men than women available to relieve on a Sender if required to do so when the lady was called to give a back up in the Control Room.

RATIONALISATION

After the war when 'rationalisation', in the guise of modernisation, began to take over, one of the first of the big changes took place in the Control Rooms. Automatic Programme Switching was installed which enabled any line to be switched to any Sender according to the pre-determined schedule. The equipment was installed upstairs in one of the buildings and programmed by small plugs inserted in a matrix in a position which enabled uniselectors to switch the scheduled line to the Sender that was due to take the programme carried on that particular line.

In many ways it was like one of the older automatic telephone exchanges except that its output was selected by the plug positions and not a dialling code. The arrangement was such that programme changes could be plugged up on the grid which had facility for a predetermined switching operation to take place every quarter of an hour triggered by a pulse from the station's master clock.

In addition to this further, pulses were arranged for every live line to the Senders and the Sender outputs to be monitored every five seconds with a dwell time on each live position of five seconds. This may sound like a monitoring job that would quickly send the operator 'round the bend', but in fact it turned out that the task of listening to this became so automatic that it caused little or no degradation of the service that could be detected. This was helped by the fact that for some time after the automatic equipment had been installed the Sender operator was also monitoring his particular transmission all the time it was on the air.

There was a repeater panel for the automatic switcher and monitor in the Control Room with indicator lights showing the status of all the equipment at any given moment, a facility to preview the next scheduled switching operation and an override facility for either the switching or monitoring arrangements. This was essential as when there were sudden unscheduled changes in the preset

programme times, or line and studio failures took place which required attention, changes had to be programmed by hand.

Any such changes as these had to be set up on the repeater panel and left to switch at the next programmed time pulse or carried out immediately by the operator pressing an override button. All these events were displayed by light indications on the repeater panel in the Control Room so that staff could see at a glance the exact status at any moment, or check the next batch of switching operations for correctness before they happened.

Needless to say the automatic equipment was not received with any great favour at first and for reasons that were not obvious at the time, nor still are, it became known by all as the 'Beer Engine'. However, it did settle down and after a number of teething troubles was soon accepted by everybody when it was realised that it actually made the job easier.

The next change that took place, partly made possible by the 'Beer Engine', was the reduction of staff on the Senders. Instead of one to a Sender in each building, the removal of the Kiosks from the transmitter halls and repositioning of the Control Desks back to back and side on to the Senders made it possible for one person to operate two Senders at a time. This economy was also aided by a considerable reduction in the demands of the schedules after the war.

Another factor which seemed to make what at first sight was an extra work load less onerous was gathered experience and increased skills of the staff once all the redundancy was over, plus the fact that they were older and had learned more. The onus of monitoring was for all practical purposes taken over by the automatic equipment and when a rush did occur there were the GS (General Service) engineers to help out, or the operator from the adjacent transmitter hall was often available to lend a hand in a time of need.

This situation soon settled down until the 'outbreak of the Cold War' when most of the programmes directed at the Eastern Bloc in general and Russia in particular were jammed. The first counter measure to this was to schedule programmes to Russia in particular into one quarter or half hour period and onto as many Senders and frequencies as possible all at the same time. This was done in the fond hope that we would swamp the air waves in the targeted reception area to such an extent that they wouldn't be able to muster up enough jamming stations.

This effort called for everything we could put on the air being switched on and taxed every resource we had. These measures were successful for some time after which it became obvious that their effectiveness was declining as the Russians came up with counter measures.

The BBC replied by instituting a system of 'Crash Starting' where all available transmitters and Senders at every station were switched on without any line up time and all exactly on the second. Sometimes this procedure led to spectacular results at the sending end, the sudden load of nearly eight thousand Kilowatts made a great instantaneous load to be put on the mains supply and caused them to dip for miles around, especially in Penrith which was on the end of the feeder that fed Skelton.

The modulation (loudness) level of the transmitted signal was also kept at as high as possible a level so as to penetrate the jamming signal. The greater the

depth of modulation the more power was taken from the mains by the Senders and those who knew, realised that the flickering of the lights in Penrith was actually taking place in time to the programme being transmitted at Skelton.

A frequent effect of this 'crash starting' procedure was that some of the Senders, especially those transmitting on the higher frequencies, sometimes revolted at this harsh treatment and flashed over with a bang that sounded like thunder and gave the operator a nasty turn if he wasn't prepared for it. Even worse from his point of view, a flash over left burn marks on the polished circuitry and had to be cleaned at the earliest opportunity. This wasn't unnecessary 'bull', it was vital that any part of the circuit which was at the same potential as the high voltage supply was kept scrupulously clean or further flash overs would occur and eventually fire would break out and damage the equipment.

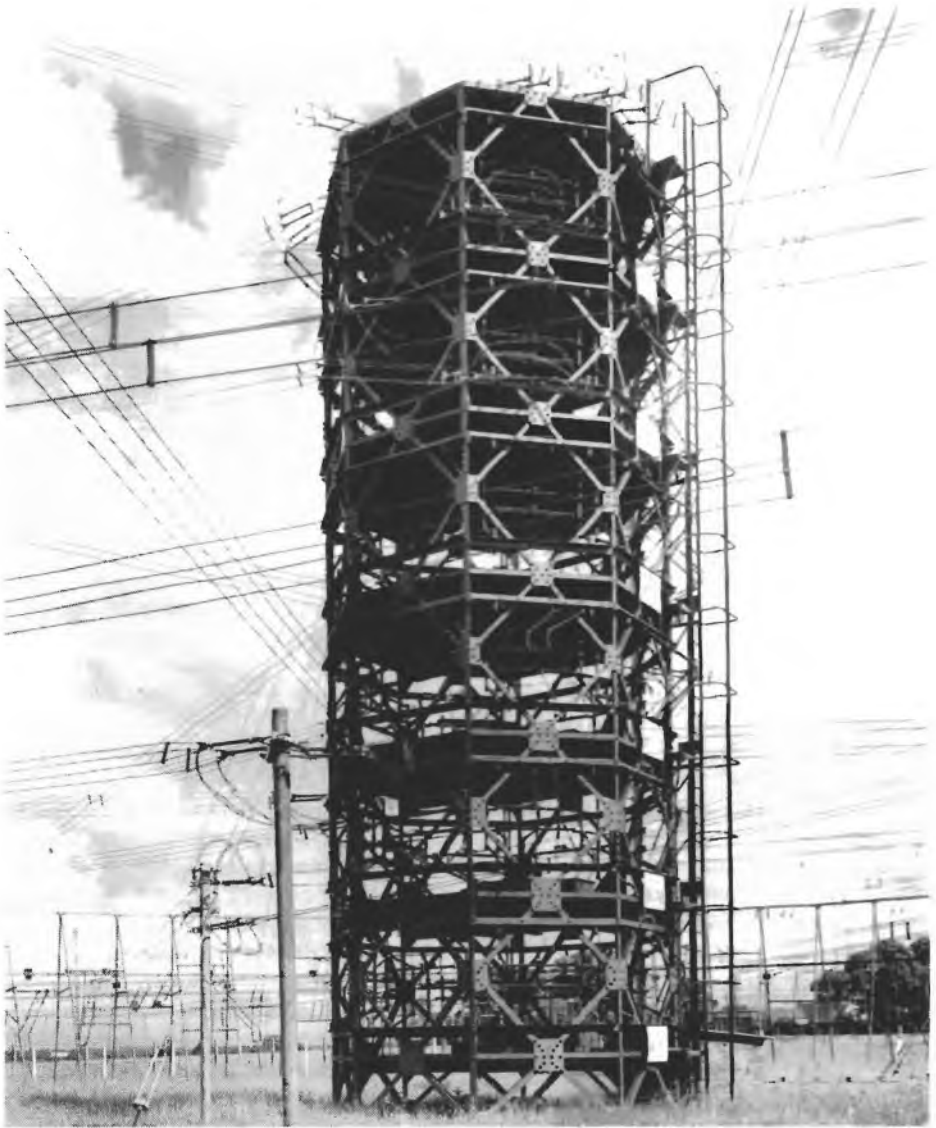
Sender operators became very adept at dealing with these flashovers and could after a time, quench them and restore the Sender to service instinctively. What they had to do was trip (switch off) the RF drive from the Control Room and lower the high voltage supply slightly by the 'Lower' control button. They then had to restore the RF drive and raise the voltage to the working level, which if done properly would cause only a very short break in transmission that would probably pass unnoticed. If they weren't quick enough the supply to the circuits would trip out after trying to restore itself three times automatically when manual restoration of service became a whole new ball game which lost significant programme time and had to be logged.

THE HUMAN ANGLE

I have made comment on the effect on Penrith and District when 250 staff were suddenly drafted into the area. The War came to an end, the transmitter got down to what everybody hoped would be a settled routine and inevitably the staff mellowed. Technical developments played a great part in shaping the lives of staff, but the effects on the lives of others nearby was not properly understood at the time.

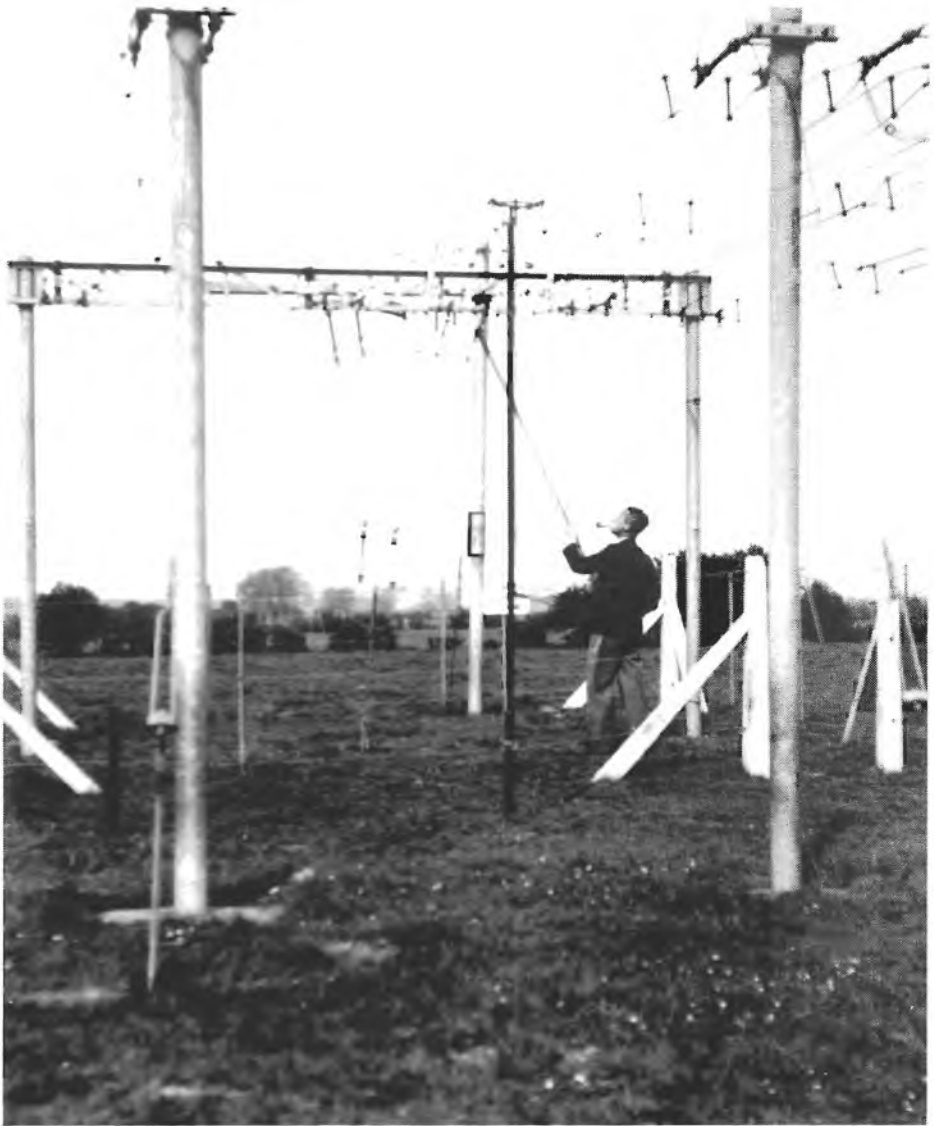
Humans being what they are give colour, joy, sadness and pathos in the normal proportions to any community and Skelton and its staff were no exception. Some older staff moved their families into the area and were absorbed into the local way of life easily or reluctantly according to the way they took to the new surroundings, or if the Penrithians took to them. At the other end of the scale the younger ones grew up and many married local girls and started families who in turn became absorbed into the community.

There was a third type, the local person who found employment with the BBC and they too fell into the older and younger classification, but were soon moulded into the lifestyle dictated by the aspect of broadcasting they were working for. All this happened in the space of six or seven years and it is quite remarkable how the hundreds of incomers were integrated so well into the Cumbrian scene. Table tennis, darts, swimming, tennis, rugby and cricket were all popular pastimes where staff could integrate with local organisations although shift workers had some difficulty in joining where team games were demanding on fixture lists.



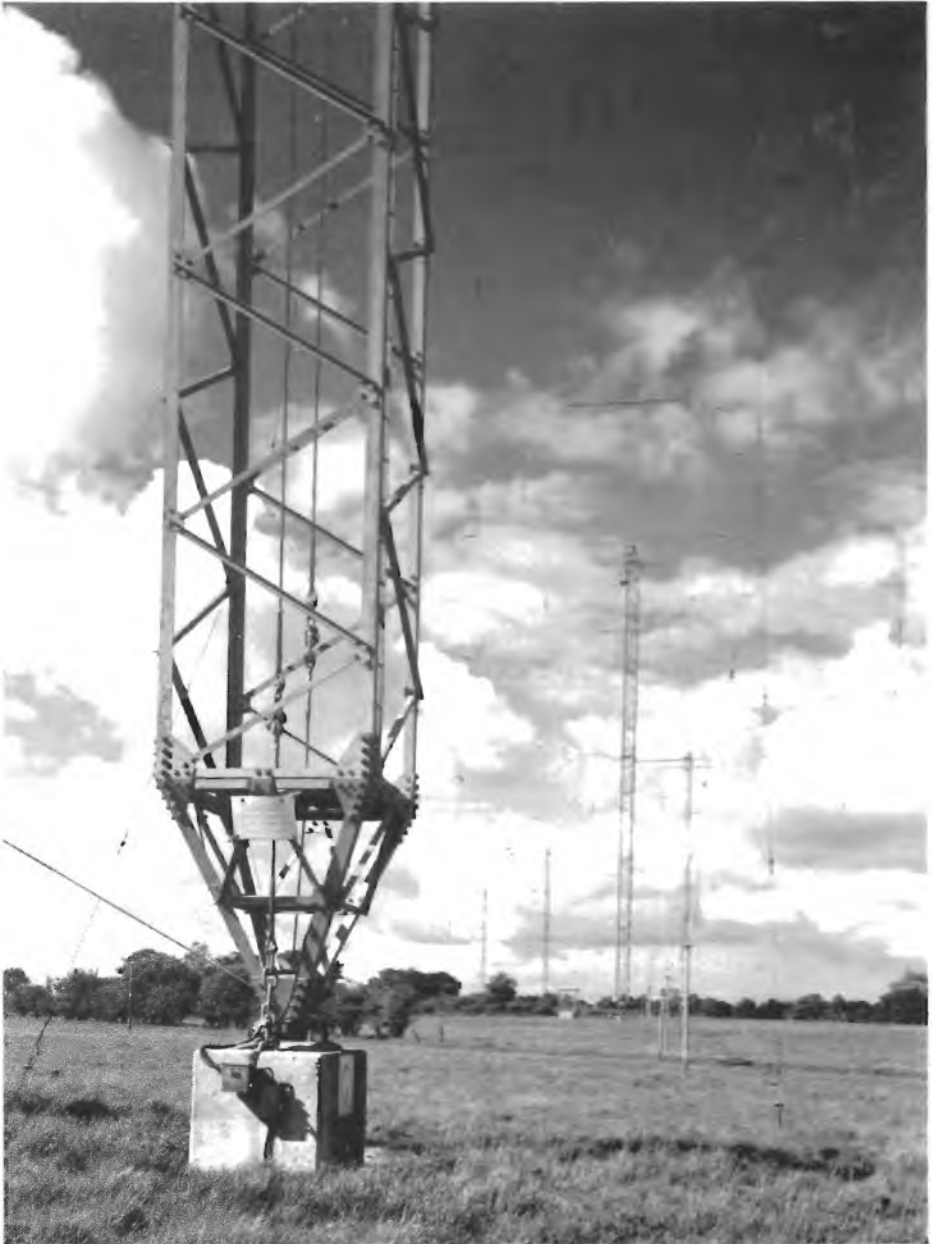
When all the staff had switched on, tuned and switched the Senders to the right programme, the transmissions then had to be fed out to the aerial that would beam the programme to the appropriate area. The output of the Senders was then fed out to the tower seen in this photograph. This was in effect six remote controlled rotary switches that directed the Sender output along a selected feeder line to the correct aerial which could be as much as a mile away.

PHOTO CREDIT: BBC



Before a few photographs of the staff at play, this one shows a technician making scheduled switching operations to adjust the direction of transmission from an aerial system. Much of this work has now been eliminated by modern design of aerials and electronic switching and few, if any, of the staff are sorry to have seen the back of this aspect of the job. Very nice on a warm summer's day, but dreadful on a wet cold winter's night!

PHOTO CREDIT: ERIC PICKERING



The bottom of each mast rested on a steel ball to give some flexibility in high winds.

PHOTO CREDIT: BBC



These early high power Senders needed constant monitoring, both for the quality of output and to make sure that the equipment was performing within the specified limits. This picture shows transmitter staff making adjustments at the start of a transmission from a Skelton B Sender when the station was known as OSE 9.

PHOTO CREDIT: BBC



In the days before solid state equipment the output of transmitters relied on valves. Each transmitter at Skelton A needed four large water cooled valves powered by 11,000 volts similar to the one shown in this photograph beside a Sender at Skelton B on the pram like trolley required to move them.

PHOTO CREDIT: BBC



Some valves in the Marconi Senders were the same as those used in the Standard Telephone Senders at OSE 9 (Skelton B). This picture shows one ready for installation beside Sender 65 at OSE 8. The pram-like trolley on which these valves were moved enabled the valve to be slid straight into the position where it was to be used with all the connections to hand. The gentle treatment required was to prevent damage to an expensive and delicate item as well as speed up any change that had to be made in an emergency.

PHOTO CREDIT: BBC



Another view of one of the Marconi Senders after the transmitter hall had been tidied up when automatic monitoring was fully operational. This photograph was probably taken in the 1970s.

PHOTO CREDIT: T. J. PICKERING

A fact that helped was that all had the one thing in common, somebody in the family worked at Skelton and having said that an outsider could be forgiven for thinking, 'how dull' ! In fact it was the human factor that made 'being dull' the last label that life with a 'BBCite' could be given. Probably the most influential single thing that affected staff, families and local people was the nature of the job which dictated shift work for about half the staff at any one time.

In the immediate post war period there was more serious discussion about the pros and cons of different shift patterns than any other subject. The reason for this was that there were eight shifts of about fifteen staff of various grades and two shifts needed to man both stations at any one time. So it did affect many in a very personal way and was credit to the management of the time that the one that raised the least opposition and ensured the satisfactory operation of the station was eventually chosen.

The pattern selected was a fairly short run of evening, day and night shifts, four of each if my memory doesn't fail me, with quick change overs between each one. This gave the longest possible break between each pattern as it ended after a night shift at eight in the morning, gave three clear days off by starting the next pattern at five in the afternoon for an evening shift. After the wartime shifts which were normally made up of runs of seven nights, or evenings, the new one was well accepted giving minimum disruption to the social life of the younger staff and the family life of the older ones.

To make this way of life slightly less of a chore a pool of Technical Assistants was kept for leave and sick relief duties and when not required for these joined the maintenance team on normal day duties. This had the dual effect of giving staff wider experience and a spell of more normal social life.

With the numbers required to run a station of this size there were bound to be characters among the staff and Skelton was no exception and a few of these are well worth remembering here. As the station approaches its 'half century' I would not even like to guess the actual numbers that have passed through Skelton at sometime in their broadcasting careers, but it probably runs into thousands.

During the first few years of operation the SMEs were largely drawn from the older established engineers from pre-war stations. Each one was responsible for the minute to minute running of the station while they were on shift and from the point of view of a seventeen year old in his first big job the SME was only two down from God. The Engineer in Charge had Papish powers and the senior Head Office folk were only spoken about in reverent terms.

This meant that your SME influenced your working life more than any other single member of staff, for he was your immediate boss. It also meant that if you had any talents as a cartoonist in many cases you could have had a field day using your SME as a character alone. They all had idiosyncrasies which had to be noticed and earned them nicknames in much the same way as School Teachers do. If you didn't like your SME's particular quirk you had to go along with it for he was still your boss. We all survived, so they couldn't have been all bad, in fact with hindsight most were really good and helpful.

There was one who was greatly feared as a strict disciplinarian, just my luck he was mine for a long period. His main quirk was that he called all his staff 'laddie'

no matter be they male or female, young or old. The one thing he would not tolerate was slipshod work. If one had a longish break in your schedule of transmission many SMEs allowed you to have forty winks providing you had done your scheduled maintenance. Not so my SME, he would allow the standard meal break and that was all.

Unfortunately one night shift at OSE 8 my Sender had four hours off according to the schedule, so I did my maintenance, which happened to be in the enclosure that housed the large Mercury Arc Rectifiers and normally took about an hour. I was then stupid enough to fall asleep where I could be seen and sure enough I was seen.

I was awoken by a voice asking "Have you done your maintenance laddie?" There was no need to ask who it was, I had been caught! I had to show the task sheet duly signed off and the enclosure was inspected by 'Sir'. It also happened that the interlock and control circuit for these 'Arcs' were one of the more complicated on the station and I was still learning.

The SME looked around, and pointing at an unobtrusive relay asked "What does that one do laddie?". I didn't know, but had enough sense to admit it. I was then told to go to his office and fetch the diagrams and when I brought them to him he spread them all out on the floor and went through the whole circuit item by item and explaining the whole thing in great detail. All this at about three in the morning.

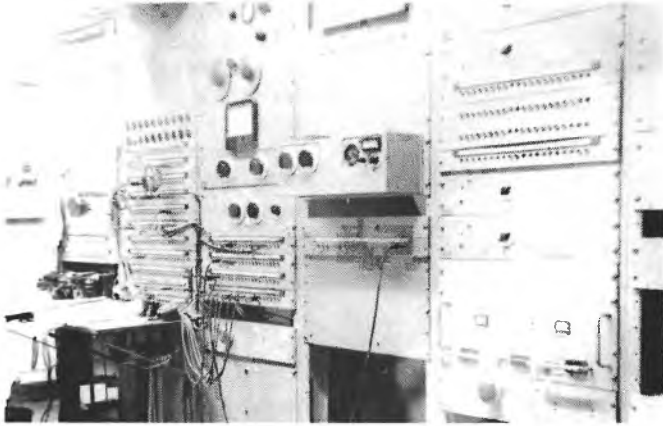
"Now do you know what it does laddie?" he asked. "Yes thank you" I replied, keen to get back and have the last twenty of my forty winks. "Good now do the maintenance again laddie, its filthy. When you complete it properly, call me back and tell me what you have learned." The next night I found a less conspicuous place for my zizz, but I had been taught something so it wasn't all bad.

THE LIGHTER SIDE

The aerial work may sound a crude way to work and by present standards it probably was, however there were times when it wasn't without humour. The staff who worked the aerial schedules were not popular if they came in dripping wet with muddy wellingtons and walked all over the spotless floors of the transmitter halls. They soon found a quiet corner at one end of the building behind what was then Sender 75 where they could hang up their dirty outdoor clothes and sit out of the way between operations.

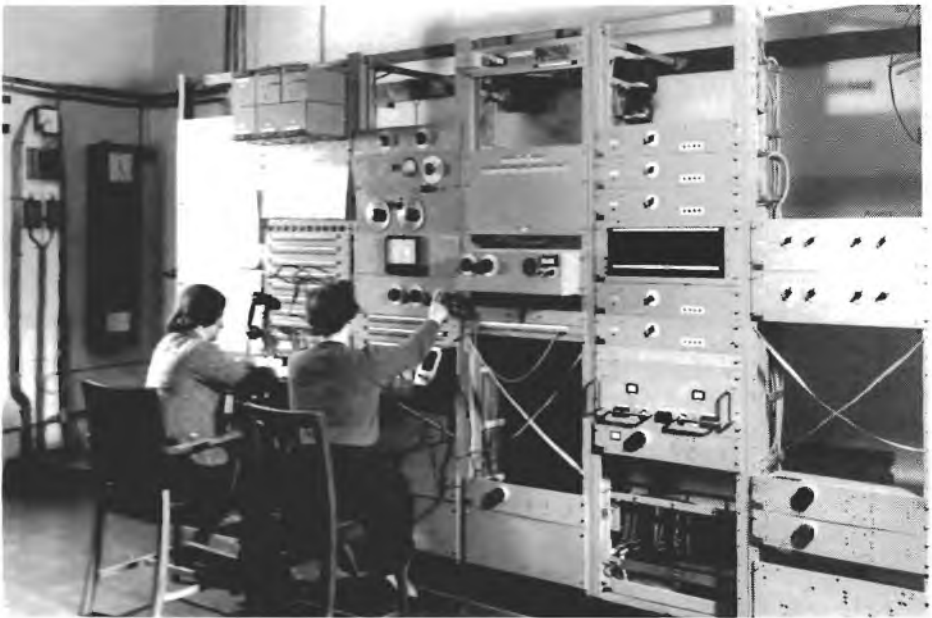
There was one particular occasion when the then Director General, Sir William Haley, was visiting and the aerial engineers didn't have to be told to keep out of the way if they weren't presentable. Most of them had seen enough 'bull' in the services anyway.

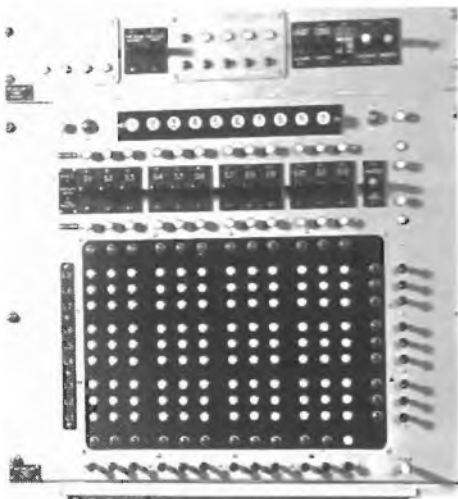
It fell to one of the SMEs to show 'he who must be obeyed' around OSE 9. This particular SME was one of the real old hands and renowned for his aloof attitude and dry humour, but what no one bargained for was the way it was to manifest itself on that day. The DG was genuinely interested and peered into all the corners, including some our management wished he wouldn't.



The third thing a transmitter needs for the listener to understand its transmission is a programme. Skelton was fed with programmes by land lines from Bush House in London. Eventually these lines came to the station direct, but in wartime it was not unusual for some lines to be routed via Manchester, Carlisle, Leeds and a number of other stations. Direct telephone lines known as control lines enabled constant communication to be maintained by the operatives in Skelton's two control rooms. This task was frequently carried out by female staff who were kept very busy and required a great deal of concentration.

PHOTO CREDIT: BBC





A close-up of the operator's panel of the first automatic monitoring and switching panel. By selection of the appropriate push button the whole of a twenty-four hour schedule could be set up. This allowed any programme incoming to the station to be switched to any Sender or group of Senders every fifteen minutes throughout the day. There was also the facility to preview the next change and override it if necessary. Every line was monitored in sequence with the Sender or Senders switched to it and indicator lamps on the panel showed the status at any given moment. This was a crude device by modern standards and commonly called by operators the "beer engine".

PHOTO CREDIT BBC



Another source of electrical energy that is needed by all transmitters is of very low power, but is still vital to control the frequency (wavelength) of the transmission. In the old days all Skelton's Senders were controlled by VFO's (Variable Frequency Oscillators), one to each sender. This photo shows the racks of these at Skelton A and situated in the control room at the station. The accuracy of the setting was made three times the frequency was changed, once by an operative other than the one who set it up, again by comparing it with the standard frequency transmission from the BBC transmitter at Droitwich and again during transmission by the BBC receiving station at Tatsfield.

PHOTO CREDIT BBC

What happened was that he saw the two aerial engineers keeping out of the way in their corner taking off very wet waterproof coats and sou'westers and just sitting down. "What do these men do?" he asked the escorting SME who replied without hesitation, "I'm blown if I know, they come here every day and do that. Strange isn't it?" To this day I don't know who was the more surprised. Anyway, there has been many a drink earned by retailing the yarn which hasn't grown too much over the years.

These interludes of humour were few and far between, but say much for the team work and way in which the procedures were carried out to the letter because it was not possible at that time to interlock the transmitters and clearance to work on the aerials was frequently by word of mouth over field telephones from the SME in charge of the shift.

Another of the SMEs of Irish descent was a giver of many chuckles to the younger ones among us. If a Sender operator got a problem he couldn't handle he called out on the Tannoy for the SME. Paddy, we will call him, came dashing out of his office on hearing a call such as 'SME to Sender 65' shouting to his GS engineers, "Bring me Avo and me lamp" We always used to say that Paddy needed the Avo to see if it was there and the lamp was to look for it if it wasn't. For the non technical this was an 'in house' joke because an Avo was a portable meter that detects electrical resistance, voltage or current and I think we all know what a lamp does. The sight of Paddy dashing down the transmitter hall like a galleon under full sail was one to behold, but also one we got used to and thought little of as time went by.

Yet another of the SMEs had a natural curiosity for the inexplicable and claimed that all things could be related to triangulation and ley lines. To get him going on that subject was like starting a verbal version of Niagara Falls.

One particular day when this SME was on duty the talk of the station was a visiting sales rep who was trying to sell the Canteen manageress some new supposedly unbreakable water glasses and throwing them about the mess room to prove his point. It has to be said here that the Mess Room was on the first floor and entered by a staircase that overlooked Sender 75.

The demonstration of the unbreakable glasses was going on and staff were invited to throw or drop them on the floor and sure enough nobody managed to break one. That was until our curious SME arrived. He listened carefully to what was being said and watched a demonstration before telling all assembled there that it was a con.

"It has to fall along a certain line when it will always break" he pointed out, whereupon others tried again with no result other than a glass that survived the worst treatment that could be given. Even the AEIC who happened to be there as well said to the SME "Go on then, show us". The rep just smiled smugly. Our sincere SME picked up one of the glasses that had survived the efforts of the others, studied for a second, went to the door, held it shoulder high and just dropped it.

The bang made when the glass just shattered into thousands of granules had to be heard to be believed. It was clearly heard half way down the transmitter halls and the Sender Operator on Sender 75 which was the nearest to the Canteen thought he

had an enormous flashover and instinctively tripped the Sender. Unfortunately it wouldn't respond to the normal remedial measures and wouldn't come back on air. There was an immediate call for the SME to go to Sender 75 whereupon he just turned to those in the Mess Room before going down to attend to the Sender in trouble and said "There's more to them than meets the eye." Nobody argued.

Such was the variety of staff at Skelton that being a character didn't always mean being odd, or even an SME. We had sportsmen who made a name for themselves in the town, especially at table tennis where the BBC teams were able to hold their heads high and became popular players in the local league where they competed against teams from the Post Office, Gas board and other organisations. A number became sought after players for the Penrith Rugby team and in Summer quite a number contributed players and support for the Penrith Cricket Club.

Each shift had a diesel mechanic on duty with it and these were all characters. In those rare moments when there was time to spare the younger ones used to enjoy a yarn with the diesel drivers. One in particular deserves a mention and he was 'Togo' Frankland. In the days before television and David Nixon and Paul Daniels, Togo was a real entertainer and magician. I am sure there are many around today who will remember receiving a lesson on starting and running the diesels and the new trick Togo would show at the end. A great character and entertainer.

On the work side characters frequently just developed and became recognised only after they left the station. The growth of the television service in the BBC and the ITA from the early 1950s onwards gave opportunity for advancement that would not have been possible at Skelton and many will have seen the names of our old colleagues given credit in one capacity or another on the small screen.

There are not many stations in the BBC that have not had Skelton staff on their strength at some time or another. Some who have reached dizzy heights in the BBC have been characters in their own right, many of whom never get recognised for their achievements outside the very small circle of their work.

My eldest son's Godparent went back to his old department of research after an experience gaining spell at Skelton. His name is not generally known outside the BBC, but his works certainly are, he invented CEEFAX and played a great part in the development of equipment for television standards conversion. However, the thing I most remember him for was just after the War when he proudly showed us a brand new sports jacket. This was at a time when clothes were strictly rationed and when asked where he got the coupons to buy it he explained that he had been given the material and made the jacket himself!

Quite a few who read these pages will remember with affection the start this amazing station gave them. Others who settled and stayed there have all played their part in Cumbrian life. Some entertained in the local Operatic Society, others organised sport, and one who I know to be still around has now retired but is on the local bench as a JP. It has been a two way trade for few would argue that Penrith has benefited from having the BBC staff living in the area and those who settled in the area have every reason to be grateful for a super way of life.



A group of off duty staff in an old army type hut that served as a rest room on the site near OSE 9 (Skelton B). Certainly not much comfort there and it could be cold in winter.

BBC staff hostel "Fernleigh" in Lowther Street, Penrith which was opened in the late 1940s to overcome the shortage of accommodation in the town.



A small group of "Fernleigh" residents off duty in the hostel garden. Probably they got tired of playing cards!

A favourite sport was swimming and the group of Skelton staff depicted in this group around 1950 used to swim every day of the year in the Penrith Swimming Club's site in the River Eamont near Brougham Castle. Yes, it was every day of the year and it was outside!

PHOTO CREDITS: HARRY BAINES, DEREK HOWARD & KEN SHEPHEARDSON





A favourite pastime before the days of universal motoring was cycling the five mile ride to Ullswater and an hour's rowing in one of the club's chartered skiffs. On a summer day this was a good healthy occupation and could easily be fitted in between lunch and an evening shift. The picture shows Ken Davies and Don Tiplady at Pooley Bridge with their bikes.



Ken Davies playing at being a master mariner on Ullswater on an afternoon's outing.



Alan Cogan, Matt Elliot, Phil Stevenson, John Origan and Harry Salisbury pretending that living in Cumbria was a "dog's life". They all returned at various times and one or two settled down there so it wasn't that bad!



Ken Davies and Harry Salisbury outside a local hostelry on VJ Day. The brew was 'Glassons' bitter, a local ale no longer brewed.

PHOTO CREDITS: HARRY BAINES, DEREK HOWARD & KEN SHEPHEARDSON

BBC SKELTON CLUB

MEMBERSHIP LIST JANUARY 1948

ALEXANDER, A.	GREEN, MISS, U.	PARIS, G. K. H.
AINSWORTH, L.	GUIZZETTI, E. J.	PARKER, MISS M.
ARTHUR, J. O.	HAMILTON, C. H.	PEEL, V. E.
BANKS, J. S.	HAMER, W. D.	POWELL, E. L.
BAINBRIDGE, E.	HARRIS, H.	REYNOLDS, D. J.
BOWMAN, D. W.	HARRISON, A. P.	REECE, C. H.
BORROWDALE, F.	HARRISON, MISS F.	RICHARDSON, J.
BOWDEN, H. F.	HARRISON, W.	ROBERTS, E. H.
BROWN, MISS K.	HAWKINS, P. I. L.	ROBERTS, D. G. A.
BYRES, J.	HENDERSON, L.	ROTHNEY, A. C.
CARR, W. A.	HODSON, MISS O.	RUSSELL, J.
CAVE, J. E.	HOLMES, R. W.	RYAN, T.
CRANSWICK, G.	HOWARD, D. J.	SEED, T.
CRUST, C. W.	ILEY, MRS N. W.	SHALLCROSS, J.
CUNNINGHAM, J.	INGLIS, G. L.	SINCLAIR, J. G.
DALTON, MISS V.	IRWIN, W. G.	SNOWDEN, A. E.
DANN, A. W.	JACKSON, K. C.	STEPHENSON, P. R.
DARRAGH, R. S.	JEPHCOTT, C. R.	STEWART, J. G.
DINSDALE, W. D.	KEITH, J.	STEWART, R. M.
DOWTHWAITE, G.	KINGSCOTE, R. N.	STOCKWELL, F. M.
DOVE, D.	KITCHEN, R. W.	SWAN, J.
DAVIDSON, MISS E.	KNIGHT, R. S.	SWINGLEHURST, G.
EATON, J. R.	LAMBERT, D. N. H.	TEASDALE, MISS A.
ELLWOOD, R. D.	LAWRENCE, N. A. C.	THOMPSON, J. H.
EDWARDS, R. E..	LONG, D. F. J.	THOMPSON, K.
FARNARN, J.	LOWERY, J.	THORNEYCROFT, W.
FAWCETT, J.	LOWERY, M.	TINSDALE, C.
FERGUSON, J.	McCORRISTON, R.	TOMLIN, J. L.
FOGG, J. H.	McDONALD, G.	TOTTY, MRS B. S.
FRATER, L.	MENABNEY, J. M.	WHITE, A. L.
GARSDALE, MRS A.	MILBURN, MISS M.	WILLIAMS, S. A.
GIBSON, W.	MILLICAN, F. C.	WILLIAMSON, J.
GILMOUR, H.	MITCHELL, W. L.	WOOD, S.
GRAHAM, MISS M.	NICHOLL, W. L.	WOODHALL, MISS P.
GREEN, R.	NICHOLSON, R. A.	WOOLLEY, MISS M.
GREEN, W. D.	OCKENDEN, L.	WATSON, K.

The above list was supplied by Mrs Barbara Totty (better known to the older ones amongst us as Barbara Snape). Quite a few of the names have changed by the time some attended the anniversary get together at Shap Wells in July 1993 and when this list was produced the question of "Do you come here often?" was heard.

B.B.C. (SKELTON) CLUB

DINNER AND DANCE

ON

Monday, 11th February, 1946

(DINNER at 7.30 p.m.)

MELODY MAKERS BAND

ADMISSION 3/-

B.B.C. (Skelton) Club

*The Chairman & Committee cordially invite
Mr. & Mrs. J. G. Martin
to attend a Cocktail Party from 7 p.m.
to 8 p.m. on Friday, 5th August, 1955,
in their new Clubroom, at West Lane,
Penrith, to celebrate the opening.*

R.S.V.P.

In the early days of the station when the war was coming to an end there wasn't much social life and the annual staff dance was an event much looked forward to by all staff of all grades. In 1946 it set you back three shillings (15p) and beer was 6 old pence (2.5p) a pint! There are quite a few of the "golden oldies" who will remember the event in 1948 from the list sent to the author by Mrs. Barbara Totty.

Another interesting document, sent by Frank Martin, is a copy of his invitation to a party to celebrate the opening of the BBC (Skelton Club) in August 1955. This club played an important part of Skelton's staff's life and even became a centre for organising events that were to become a part of the town's life.



Another social occasion, the presentation of the Wheeler Cup to the BBC Skelton Club's Chairman, Mr. Harry Baines, by Mr. E. F. Wheeler, the superintendent engineer transmitters. This cup was for annual competition in indoors sports and the first such trophy donated to the club.

PHOTO CREDIT: HARRY BAINES





"MORTY RIDES AGAIN!" A light hearted moment when the dreaded "Morty" decided that a wave change at Skelton A needed someone to ride shot gun.

PHOTO CREDIT: ANONYMOUS FOR REASONS WE CAN'T DISCOVER



A social occasion. A group of staff taken at a gathering at the Queen's Head, probably about 1950.

PHOTO CREDIT: DEREK HOWARD



Since 5th August 1955 the BBC Skelton Club has had its own purpose-built club rooms in the centre of Penrith. These have provided what must seem to the older members untold luxury with a comfortable lounge and their own Bar.

PHOTO CREDITS : HARRY BAINES



Two interior views of the Skelton Club, one of the few transmitter clubs still functioning, showing some of the facilities for relaxation and refreshment.

PHOTO CREDITS : HARRY BAINES



A DAY IN THE LIFE OF

For me the early fifties were the best days, I had just been made a member of the Established Staff, promoted to TA 1 grade D, and married. Indeed life was beginning to take shape and I felt a real part of it. For this reason I will try to recreate what I remember as a typical day for the likes of me at that time.

For the sake of the picture I assume a day shift at OSE 9. Hartness's bus would leave Sandgate at eight AM and pick up staff in the Corn Market, the top of Castlegate and in Castletown leaving Penrith past the new maternity hospital to pass through Newton Reigny, Laithes and Skelton village. The journey would probably take about twenty minutes and allow the day shift staff ten minutes to take over their allotted duty position and give continuity with the work of the outgoing night shift.

If you were taking over the operation of a Sender you would normally pick up any memos from the Notice board and then check with the outgoing operator that all was in order and entered in the Sender's log before signing to say you had taken over.

The next thing to do was to see that there were no special instructions and/or extra, cancelled or alterations to the Schedule that had to be noted in your shift. After that a walk round the Sender noting readings of the meters that indicated how it was performing. These readings were normally taken and entered on the Sender's log sheet once every two hours or everytime a change of frequency was made which ever was the most frequent.

All the Senders at OSE 9 were dual channel with a common modulating stage with four 4030C double ended water cooled modulating valves. It was important to note this, because all four valves were needed in circuit if both channels were used, but as an economy measure it was practice to have only two in circuit if the Sender was operating with single channel. Normally you switched in the second channel in a gap between programmes when the schedule called for it, an operation that only took twenty seconds.

If you had taken over at a stage in the schedule when there was only one channel needed, then all well and good if you only had two valves operational in the modulator stage. However, at the next scheduled break it often happened that a further scheduled period was for single channel working with the second one having to be 'rolled in' at a predetermined twenty second break between programmes. It was the operator's responsibility to see that when this situation was on the schedule the transmission had to be anticipated and all four modulating valves put in circuit ready for the 'roll in'. Failure to do this could lead to loss of transmission time which would certainly go against you at the next annual interview if it was your fault.

On a day shift one was entitled to ten minutes tea break morning and afternoon as well as half an hour for lunch, all subject to the "exigencies of the service". It was usual practice for every day shift to have at least one hour when all the Senders were off the air at the same time to enable more far reaching maintenance to be carried out, although sometimes this didn't happen at the same time at OSE 8 as it did at OSE 9.

This gap enabled work to be carried out on parts of the power supply circuits

or the aerial switching frame and other equipments common to all Senders. These breaks could be very interesting or just plain dull depending on the work in hand.

The normal start up time for a Sender from cold took half an hour and the routine was much as follows with minor variations to suit the occasion. The high power valves were all water cooled and the first task was to ensure an adequate flow to each valve with no water leaks whatsoever. All the power supplies were inspected as being correct and the Sender itself was checked to ensure that all connections were tight and no tools were left inside before it was locked up.

Then and only then, the filament supplies were switched on which started the generator in the crypt below the Sender to run up to the correct working voltage under automatic control. This took a few minutes during which time dial settings appropriate to the frequency the Sender was due to transmit on were put on all stages. It was checked with the control room that the frequency of the drive was correct for the next transmission and also that the correct aerial or aerials were available with their tallies in the proper position by the Sender where they could be clearly seen.

When the operator had made sure that all these operations had been correctly carried out and duly logged, he would then close the interlocked doors of the Sender so that power could be applied. Only the SME or his authorised representative was allowed to clear any Sender for power. He would come along 15 minutes before transmission, inspect that all was correct, sign your log and when he was satisfied give permission for the high voltage and power to be applied.

After a last look around the high voltage was then applied and manually raised to something about half the full value and all stages of the Sender checked for correct operation. This involved going to each panel and making sure that the tuning settings you had put on the various dials were correct and that the Sender was going to be in tune and not blow itself up if you raised the high voltage to its full value.

If all was ok then you brought the operating voltages up to full value and once again made fine adjustments to see that you were putting out the full rated power. At this stage you checked with the control room that the 'line up tone', which was a single frequency note, was being fed to your Sender at the correct level. If they confirmed that this was so the level, (or volume), was adjusted so that the Sender would not be overloaded when the programme started and a set of readings of all the meters were recorded to ensure that every stage of the Sender was working within limits.

A record of these readings was kept on log sheets which were useful as an early warning of impending failure of many of the Sender's components especially the valves.

The start of the programme was monitored by the Sender operator and logged as being correct after which it was a matter of listening, watching and waiting until the time for the next change was scheduled which could be several hours or only fifteen minutes. It is an interesting sidelight on this particular stage of operations that the Sender operators had to confirm that not only were all the technical parameters correct, but that the actual programme was correct and according to schedule. As these were in some thirty six languages and being transmitted to all

parts of the world one of the skills unconsciously acquired by the operators was to tell which language was which from the three words that preceded every programme 'This is London'.

Meal breaks as we have said were entirely within the exigencies of the service, some brought their own sandwiches and just went along to the mess room for a cuppa, or there was nearly always a cooked meal available at around One and Six, (7P). No one would claim that the food was Cordon-Bleu standard, but in those days when strict rationing was still the thing it was quite edible.

There was no going out for lunch in those days, but as all staff from the highest to the lowest ate in the same canteen place this in its own way ensured a certain standard and although we all grumbled, it was under the circumstances quite good. On a good summer's day if there was a little time to spare after eating it was possible to have a short stroll outside which was rather pleasant and in season there were a few blackberries to be picked if you could get there first.

As there was usually a relief on your Sender it was incumbent on you to return within the time allowed, after all you could be relieving him, or her, the next day. On rare occasions when there was some out of routine operation such as a mains failure every available member of staff had something to do and organised panic took control. The aim was of course to get as much back on the air as soon as possible.

The SME would take charge and the stand-by diesel power plant would be started by the diesel driver on duty. The Sender operators dashed around switching everything under their control back to the situation that would be needed before they could carry out the SME's instructions to restart. The stand-by power plant hadn't the capacity to run the whole station at full power, so once it was ready to accept up to its capability the SME instructed each Sender as to what to do over the tannoy.

When that stage was reached there was nothing more for the Sender operator to do but carry on and follow instructions. The SME had full details as to the actions he had to take and which programmes had priority at any given stage of the schedule and this varied according to the time of day and which programme was considered to be the most important at that particular moment.

When the mains supply became available the GS engineer on the 'mimic' power control panel had meters and switches which allowed him to control the diesel speed to synchronize the standby power frequency with that of the incoming mains.

When he had done this he could reconnect the incoming supply remotely from the panel and run down the diesels if he wished to. To paraphrase British Rail he could then let "the mains take the strain".

At the end of the shift all that was left to do was to ensure all the log books were up to date and hand over to your incoming relief. If all had gone well and the SME hadn't too much to pass over to his relief the return bus could be on its way in ten minutes.

A single person would almost certainly at that period return to his 'digs' or the Hostel and a married man to his family. Whichever, Penrith had at that time quite a bit to offer. Television hadn't reached Cumberland at this stage, there were two Cinemas, the Alhambra and the Regent in Penrith each running two programmes a

week and two complete shows a night. There were few evenings of any day if you went to either cinema that you didn't see at least ten of Skelton's staff there. In fact wives and girl friends could nearly always tell which shifts were on duty by just looking around to see which of the staff were at the 'pictures'.

Other popular events were the weekly dance at the 'Drill Hall', now demolished, where Frank Walton and his band provided the music. I believe Frank is still around and if he is he will see dozens of folk around Penrith and think 'I used to play for their Mothers and Fathers' because there are more than just a few of us 'golden oldies' who met our other halves there.

On some evenings the married couples if they had a 'baby sitter' and transport, or just couples wanting an evening out would go out to the Sun or the Crown at Pooley Bridge for a noggin and natter. Other popular venues were the Crown at Eamont Bridge which was within walking distance or perhaps the Queens Head at Tirril, any of these hostelrys would have somebody connected with Skelton in most nights.

It was about this time that staff were maturing and thinking about getting married. Many married local girls and a BBC wedding was something everybody looked forward to, not because it was any better or worse than any other, but because no matter whose it was hundreds knew the couple and all wished them well.

Obviously when a member of staff did get married not all of their colleagues could attend due to their awareness of a nearby Radio Station that had to be manned. What happened was that guest lists were drawn up with the bride's parents being fully briefed as to who could possibly be off duty and get there and this had to be done well in advance so that shift swaps could be arranged and leave booked. The poor best man had a hard time of it, because if he wasn't a member of staff, he would have to cope with the dozens of messages, if they weren't 'Too Risky', not knowing who or what the senders were when he stood up to say his piece at the reception

I think it was this period more than any other that integrated the BBC staff and Penrithians to the extent they are today. It was also the beginning of the end of the first phase of Skelton's existence and the influence of what happened at work and play fifty years ago laid the foundation of the 'high tech' station we see today and the day to day social life of the town owes much to those who came north and were well accepted.

GROWING UP

The mid nineteen fifties saw the beginning of the end of the second stage of the stations way of life which affected staff both at work and play. The two headed monster that was forcing the changes was called 'automation and television'. The automation side of the monster manifested itself in many subtle ways that affected work, one of which was the automatic programme switching equipment mentioned previously.

However, television was far more insidious. I well remember walking down

Middlegate one morning and seeing a television set working in the window of Tom Jones, a local radio dealer. My wife who was with me had never seen a television set before and was fascinated by it and didn't really think too much about it when I said that one day it would be hard to find a home without one. The set Tom had in his window was as far as I can remember the first set to work in Penrith !

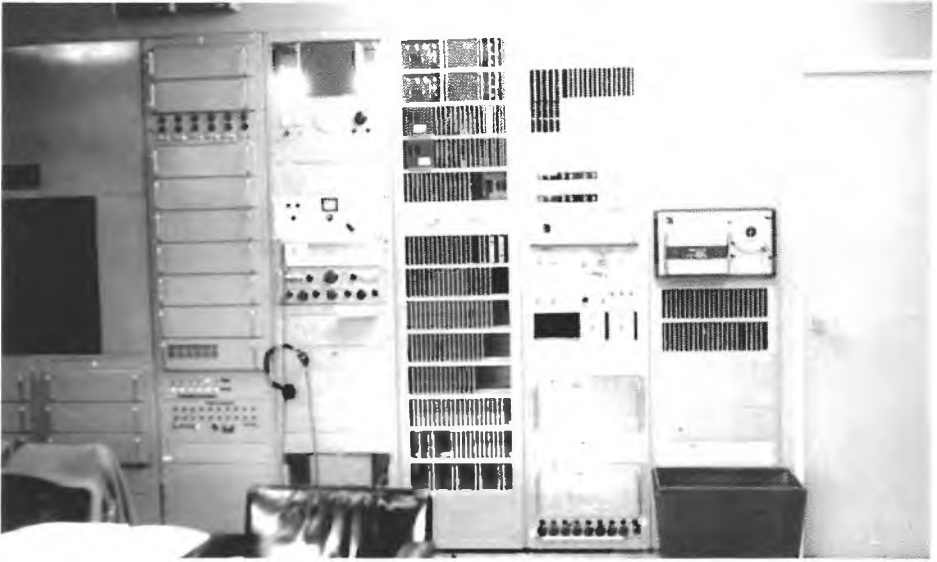
The influence of the square eyed monster was also being felt at Skelton where filters to cancel out interference to radio and television reception were being fitted to all the Senders and staff were taking a close interest in internal jobs being posted on the notice boards.

Many of those who had done time in the forces, especially those who had worked on radar found that service experience with equipment that dealt in pulse techniques gave them a head start. It seemed at the time that television was going to be the 'thing' of the future and that if the domestic radio stations were the latest in 'Steam Radio', then Skelton was a traction engine. Many of the younger and ambitious members of staff applied for every job that came up, especially if the magic word television was included in the job description and most seemed to be successful which caused Skelton a considerable increase in staff turnover.

It seems that it is second nature for the English to resist change, so perhaps this turn of events was to Skelton's advantage as the new generation of staff were being trained with the current thinking and developments in mind. Thus, the station entered its third decade with a reasonably open mind that certainly didn't regard itself as a traction engine of the radio world !

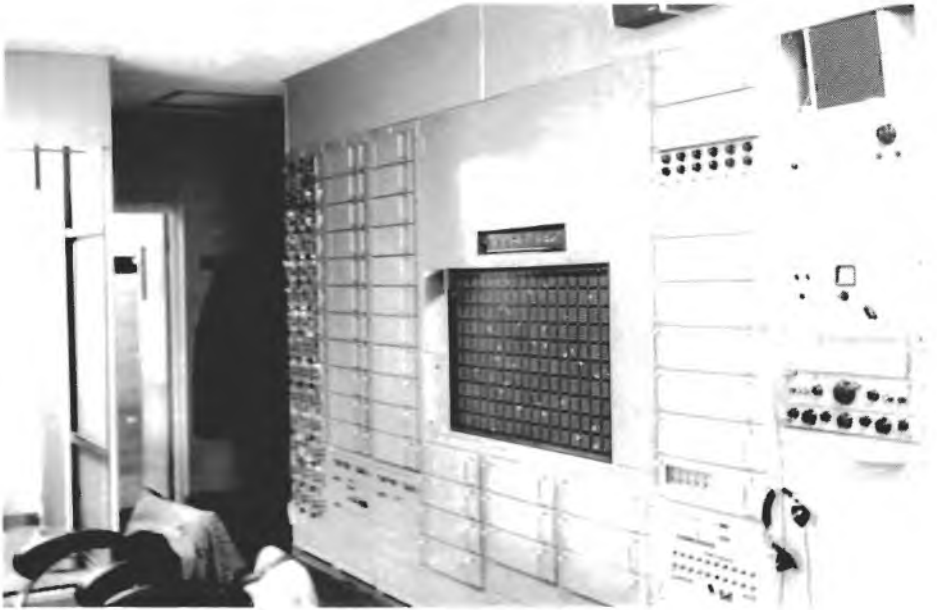
There is little doubt that this was a stage when staff and the station reached a state of maturity, the routines were established, and a higher percentage of those who worked there became family orientated. A club room was built and made a focal point for staff and families to meet to enjoy social contact and events or just chat in comfort. Needless to say car and television ownership affected everybody's attitude and way of life at Skelton as it was doing nationwide.

It was at this stage that I also left to work on television transmitters where I rejoined and was rejoined by dozens of ex Skelton staff as far afield as Brighton and South Devon. So, while my interest in the station has never waned I must leave the continuation of the story to others who served there in its second quarter of a century and launched it into its third.



Two views of the control room when modernised with solid state modular equipment. Even the switching and monitoring was more sophisticated, requiring little or no attention. Faulty equipment was usually replaced by a plug-in module and could be taken to the workshop for adjustment or repair.

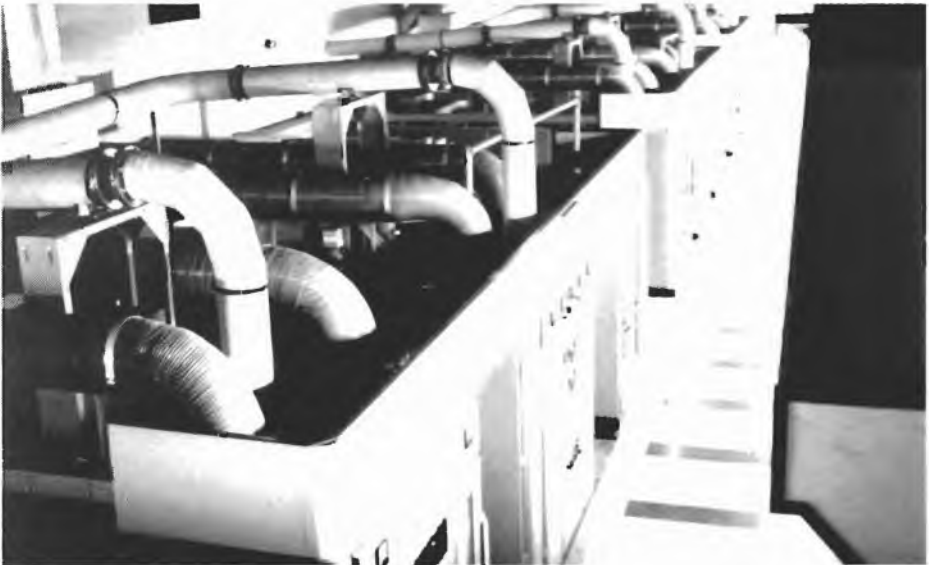
PHOTO CREDITS: T. J. PICKERING





A view down the transmitter hall at Skelton A showing three of the modern Marconi B6122 Senders. These were much more efficient and more powerful than the old Marconi SWB 18s they replaced, albeit not so exciting to look at.

PHOTO CREDIT: T. J. PICKERING



Another view is of the same type of Sender looking down from the other direction. Again it is easy to see how much more modern and clean the design of these Senders is with thirty years of development.

PHOTO CREDIT: T. J. PICKERING



Two more views of the Marconi Senders at Skelton A.

PHOTO CREDIT: T. J. PICKERING



Originally there were two transmitter buildings on the Skelton site. For all practical purposes they were identical in appearance and internal layout and only technical equipment inside varied, being provided by different manufacturers. This picture shows Skelton B in near original form and taken a matter of days before it was demolished in the early 1990s.

PHOTO CREDIT: ERIC POWELL



Skelton B (ex. OSE 9) not long after the previous photograph was taken. For all but half a century it had served the world. Now Skelton C has taken over the same task with new technology ensuring that listeners will have nothing to mourn in the passing of OSE 9.

PHOTO CREDIT: G.P.LOWREY

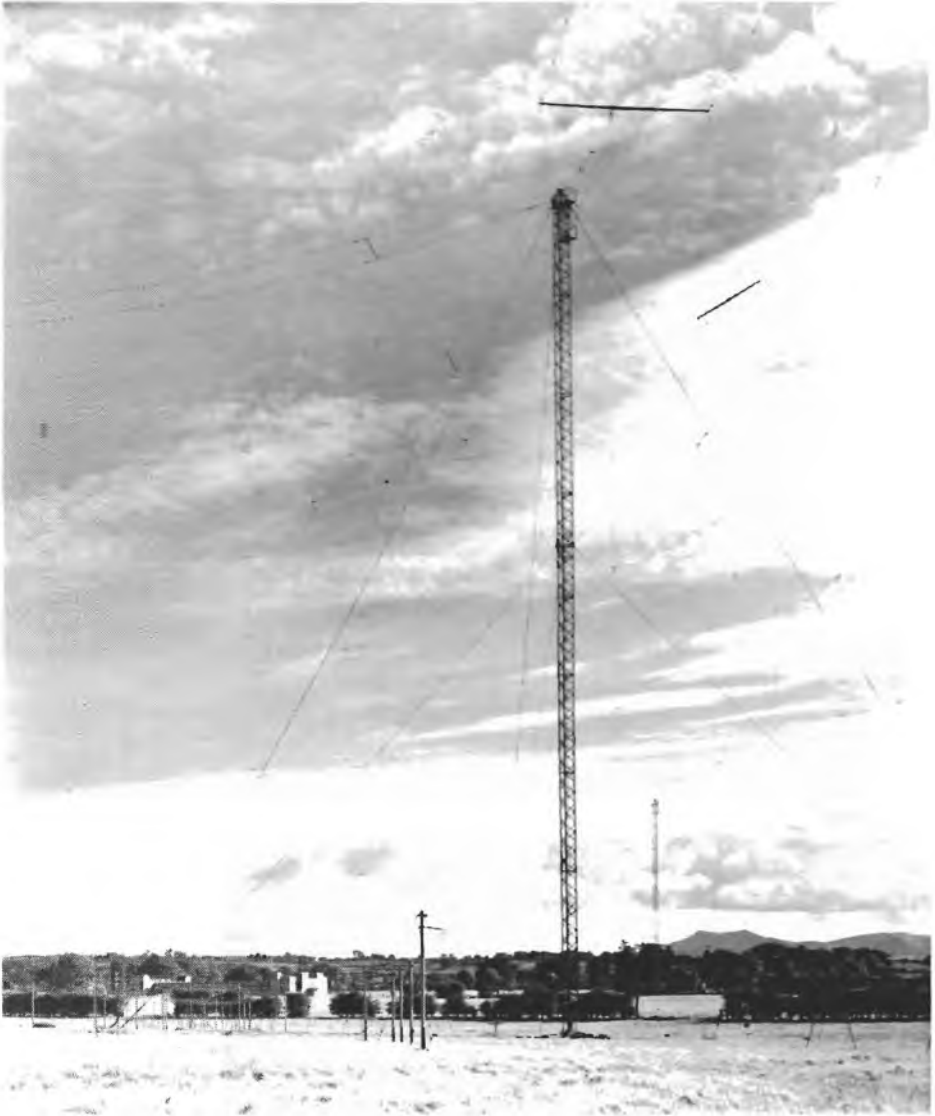


PHOTO CREDIT: AUTHOR'S COLLECTION

This photograph of Skelton A (Ex OSE 8) much as it is today makes an interesting comparison with the earlier one when it was in its original brick austere finish.

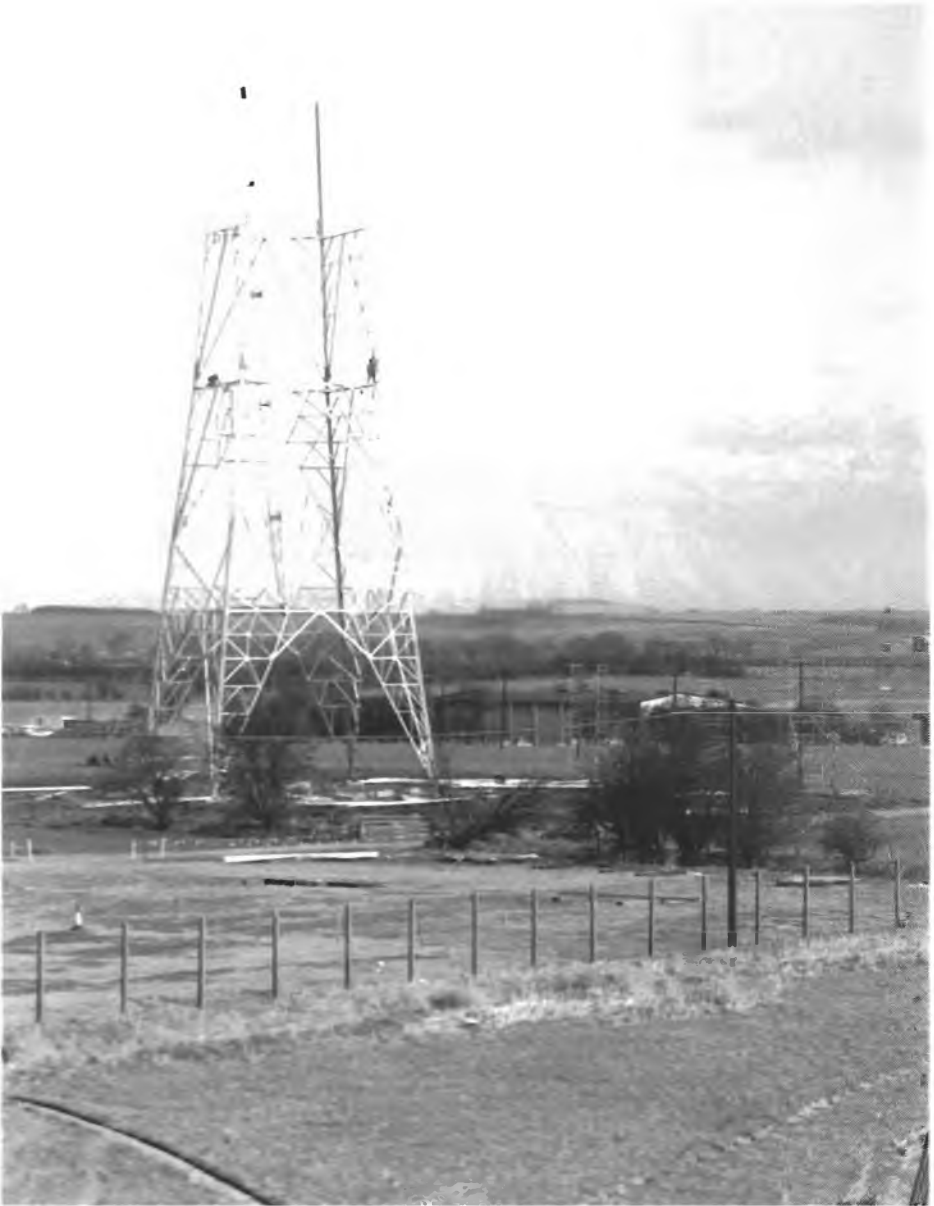
PHOTO CREDIT: G. P. LOWERY





General view of a few of the aerial masts at Skelton with one of the transmitter buildings and the Lake District fells in the background. Over fifty of these masts are the first thing one sees when approaching the site. Without them, transmitters (Senders) would not have been able to send anything anywhere! Apart from some different masts and one of the main buildings having been replaced, this view has not altered much over fifty years.

PHOTO CREDIT: BBC



The Skelton C rises from the greenery of Skelton Pastures. One wonders if it will last out another fifty years, or will the rapid development we have seen over the last decade overtake it ?

PHOTO CREDIT: G. P. LOWERY



PHOTO CREDIT: BBC

The maze of overhead feeder wires are a thing of the past. This photograph shows the snake-like coaxial feeders from the unattended Senders in the new Skelton C buildings feeding the new multi-band aerial arrays. The switching of a Sender to the aerial array beamed in the right direction for the transmitted programme is carried out by a giant matrix of coaxial switches in the building and controlled from Bush House in London.

PHOTO CREDIT: AUTHOR'S COLLECTION





The new skyline across Skelton Pastures as the new self-supporting towers replace the spindle-like originals.

PHOTO CREDIT: BBC



Three of the new remote controlled Senders installed in Skelton C. The sheer technicalities that enable these Senders to run unattended with all their functions controlled from London may be impressive to the engineers, but the visual impact is nil when compared to the giants of fifty years ago.

PHOTO CREDIT: BBC



THE END OF THE BEGINNING. Mrs. Olive Shalcross switches off a Sender she had worked on over forty years previously for the last time. This ceremony marked the end of Skelton B as the new ultra modern automatic Skelton C took over.

PHOTO CREDIT: CUMBERLAND & WESTMORLAND HERALD

FOOTNOTE FIFTY YEARS LATER

As far as Penrith is concerned, my ties are as strong as ever. I lived and worked there for twelve years from my late teens to late twenties, my really formative years. I met my wife and married her there, two of our three children were born in the Town and still regard themselves as Cumbrians first and foremost. I return to the Lakes as often as possible frequently passing Skelton and observing external changes.

In the last few weeks before writing this last chapter on a way of life that has long gone I had the pleasure of attending a reunion of the 'golden oldies' of Skelton's formative years. Enough is said about that function as it was enjoyed by all who attended and a credit to those who set about organising it. They certainly had a hard job tracking down those of us who were after many are spread far and wide. The hundred and fifty plus of those who did attend had a marvellous day meeting old friends and nattering about days gone by, but more important we got a chance to visit the station again to see how the job we did half a century ago is carried out today.

For anyone who knew those early days and the changes that have been made to take the station into the twenty first century, the sight is traumatic. The most obvious one on the operational side is that eleven of the seventeen senders are being run with only four staff per shift. The other six, of which only four are in service at the time of writing, have taken over the numbering of the old OSE9 senders and are in a new and separate building, unstaffed and every function is completely automatic ! Having had the chance to inspect it myself I have to say that from a purely technical point of view it was most impressive, but visually one collection of grey boxes looks very like another.

The staff that showed us around on the open day were the most impressive of all, in the main they had changed only in that their mastery of the job which now covers another discipline that we never had to think about, that of digital microchip technology. They were very patient with those of us who didn't understand more about the new technology than just how to use our pocket calculators or word processors and they must have been tired of hearing at the end of the day most of us saying "it wasn't like that in our day". Perhaps this book will go a little way towards explaining why this was our first reaction.

The site of the old OSE9 (Skelton B) can only be picked out from the other pastures by those who knew the exact position for it was flattened as soon as the new building was considered to be operational and now looks much as it must have done fifty years ago.

The new towers now largely replacing the old spindly masts are more impressive and each aerial can now transmit over a number of wavebands which has eliminated the old dreaded aerial switching duties. The automatic equipment now installed at Skelton C now enables somebody in London to change waveband, switch any sender to any aerial according to the part of the world the programme has to serve and feed that sender with the appropriate programme from their control room to suit the schedule.

Perhaps a few statistics would not go amiss here which will serve to tell in reasonably non technical terms exactly how Skelton does the same type of job for

which it was built half a century ago with equipment tailor made to suit modern situations. What is not quite so obvious from these facts is that the station and the service it gives are just as flexible as it was fifty years ago, which is great credit to those who had the original concept, but now a job done with greater efficiency by taking advantage of modern techniques.

All the transmitters were made by the Marconi Company and the eleven at Skelton A (ex OSE8) are all of the same type and have an output of 250 kilowatts. The design of these is thirty years old and they still require manual wavechanges to be carried out. Even so they are many times better than the fifty year old senders they replaced and the aerial switching is controlled from inside the building.

The six at Skelton C are totally automatic, each with an output of 300 kilowatts and need no staff on site to operate them.

The 500 acre site now has 38 aerial systems all with multiband capability and the one with a 'beam' to the part of the world the programme is to serve is selected from inside Skelton A's building and automatically from Bush House in London in the case of Skelton C.

Skelton has always been a station transmitting programmes to overseas areas and today sends out the World Service (in English) and programmes in German, Slovak, Greek, Turkish, Romanian, Japanese, Korean, French, French for African countries, Indonesian, Russian, Latin American Spanish, Polish and Arabic. The target areas the aerial system can reach are Europe, Middle East, North Africa and Central America.

The station also relays Radio Canada International, Radio Japan and Radio Korea in exchange for a rebroadcast of the BBC's World Service from stations in those countries.

As an indication of the costings involved in this type of station, Skelton's electricity bill is in excess of £5,000 per day alone !

The staff there at this time is around seventy of all grades. The engineers also have the task of servicing the 60 plus remote control transmitters serving BBC 1, BBC 2, BBC Scotland TV and all BBC Radio transmitters in Cumbria and South West Scotland.

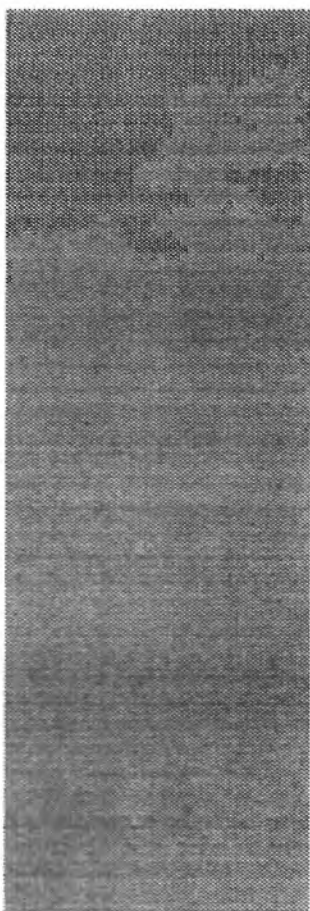
The rigging staff also have to carry out maintenance and fault rectification on all BBC masts and aerials in the same area.

Most local folk and the majority of BBC staff know of Skelton as a 'World Service' transmitting station, but the quiet way in which the staff do far more than that largely goes unrecognised which is why before closing these chapters I thought the brief facts above ought to be recorded.

Since leaving the Station for pastures new, I have travelled the world and met many of my old colleagues and others from Skelton and Penrith. Not only that I have heard the other end of the Skelton story in the most practical way for when working overseas I have been able to hear broadcasts that I know were transmitted via Skelton Pastures being operated by staff who live in Penrith. Hence my choice of 'Skelton, Penrith and the World' for a title.

KEN DAVIES, 1993.

The
Cumberland &
Westmorland Herald



*congratulates
the BBC
on the
occasion
of Skelton's
50-year
association
with Penrith
and the
newspaper.*



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