

TRANSMISSION

Times

JANUARY 1988

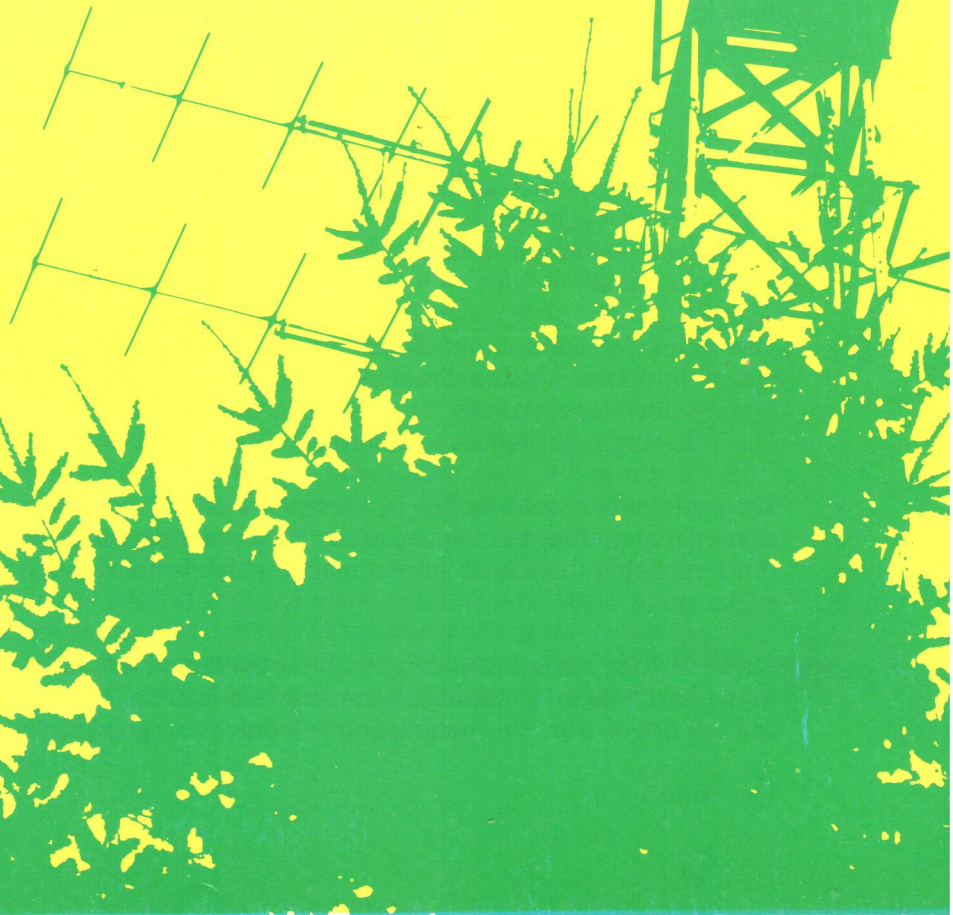
WE ARE TRANSMITTERS—

As we live, we are transmitters of life. And when we fail to transmit life, life fails to flow through us. And if, as we work, we can transmit life into our work, life, still more life, rushes into us to compensate, to be ready and we ripple with life through the days.

Even if it is a woman making an apple dumpling, or a man a stool, if life goes into the pudding, good is the pudding, good is the stool, content is the woman, with fresh life rippling into her, content is the man.

Give, and it shall be given unto you is still the truth about life. But giving life is not so easy. It doesn't mean handing it out to some mean fool, or letting the living dead eat you up. It means kindling the life-quality where it was not, even if it's only in the whiteness of a washed pocket-handkerchief.

DAVID HERBERT LAWRENCE, born on 11th September 1885 at Eastwood, Notts, the son of a coal miner. Educated at Nottingham High School and Nottingham University College, he became a teacher and settled in London. Much of his later life spent abroad. Died at Vence on 2nd March 1930.



TRANSMISSION

Times

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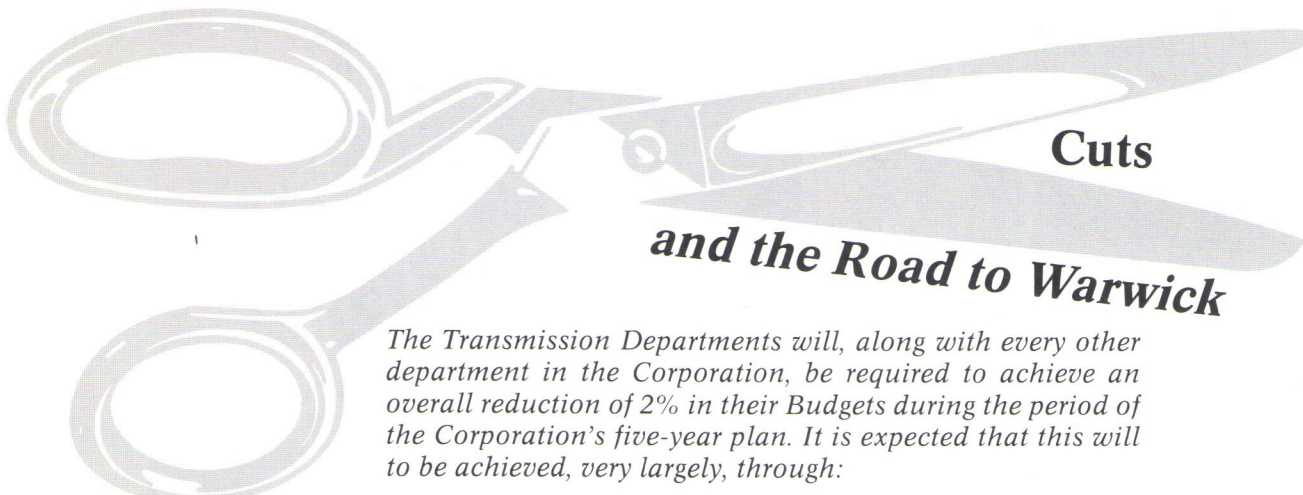
It is no accident that we in Engineering work to, rather than for, another man or woman. Traditionally, engineers are both egalitarian and proud. While one may work for the common good, for a believable cause, or even for one that's hopelessly lost, one may not work on another's behalf.

The change of name from "Transmitter Group News" to "Transmission Times" echoes the merger into Transmission Group. This merger of itself has created much uncertainty about the future, which together with the move to Warwick has left some with anxieties yet to be allayed. The following pages reflect something of this anxiety.

The expression of such feeling is, I believe, what any non-technical publication is about. I was advised that nothing be included in the "Transmission Times" that was not relevant to engineers. It is hoped that there is no subject matter which is not relevant to human beings, who are also engineers.

Those who are not entirely happy with the content of this edition will be expected to contribute to the next with an abundance of worthwhile material on any subject that pleases them. I will edit but not censor. This publication will only be as good as you can make it.

The Editor.



Cuts and the Road to Warwick

The Transmission Departments will, along with every other department in the Corporation, be required to achieve an overall reduction of 2% in their Budgets during the period of the Corporation's five-year plan. It is expected that this will be achieved, very largely, through:

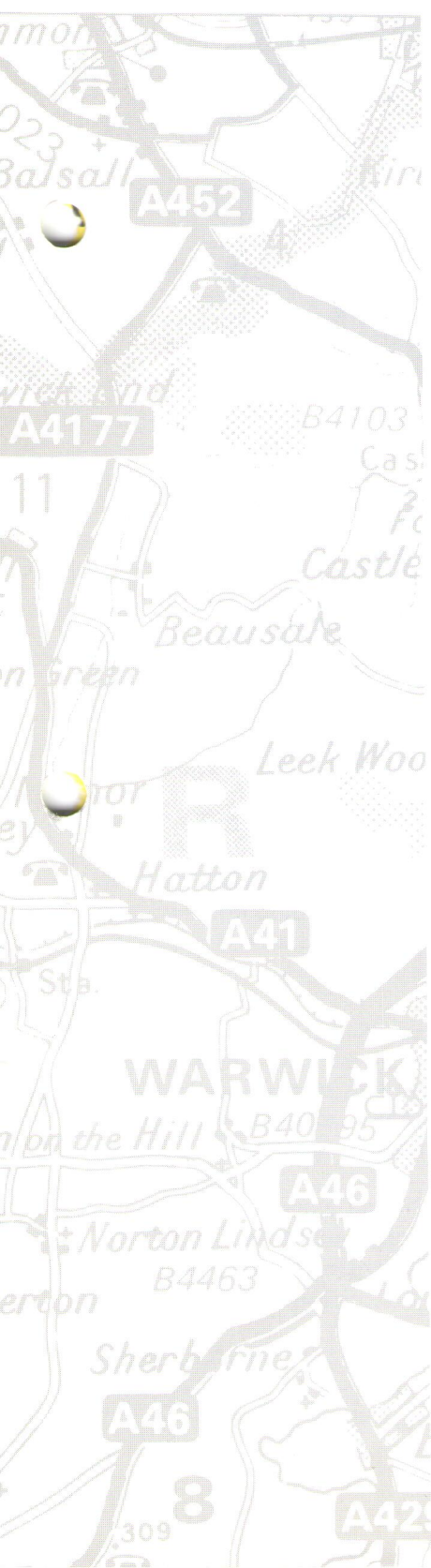
- (a) the staff and premises cost reductions arising from the amalgamation of the Transmission and Transmitter Capital Projects Departments and the proposed move to Warwick;*
 - (b) previously planned reductions in staff at transmitting stations arising out of the completion of the MF and HF re-engineering programme and the rationalisation of team base areas;*
- and*
- (c) anticipated reductions in telephone costs and certain circuit costs.*

We will, in addition, be re-examining a number of other areas – M.O.B.P., Transport and Catering, for example – but we are in a much more favourable position to achieve the target reductions than a good many other Departments and areas of the Corporation and, in both Operations and Maintenance and Capital Projects, we have an excellent record and a good deal of experience in both initiating and managing change.

And so to Warwick and the plans for a building that will comfortably accommodate the staff deemed necessary for our current and planned workload and also provide for a 30% extension to the building at some later date. Why an extension with all these plans for cuts. The cuts do, of course, reflect our present business and running through the five-year plan is the theme of greater involvement of commercial operations and deals. From Transmission's point of view there is, for example, the possibility of a BBC self-provided contribution and distribution network, there is the possibility of a fifth television channel and this is something that BBC Transmission could provide, operate and maintain. If the concept of UK Transmission Authority became a reality this could also be based on BBC Transmission. Against this background purchasing an additional two acres of land and making provision, in the building design and with the Planning Authorities, for a 30% extension to to the building would appear to be a prudent investment.

Meanwhile the capital projects work continues to build up both in the Communications and Transmitter Projects Group areas with no shortage of work envisaged during the 1990's and a number of particularly exciting projects on the horizon.

Bert Gallon



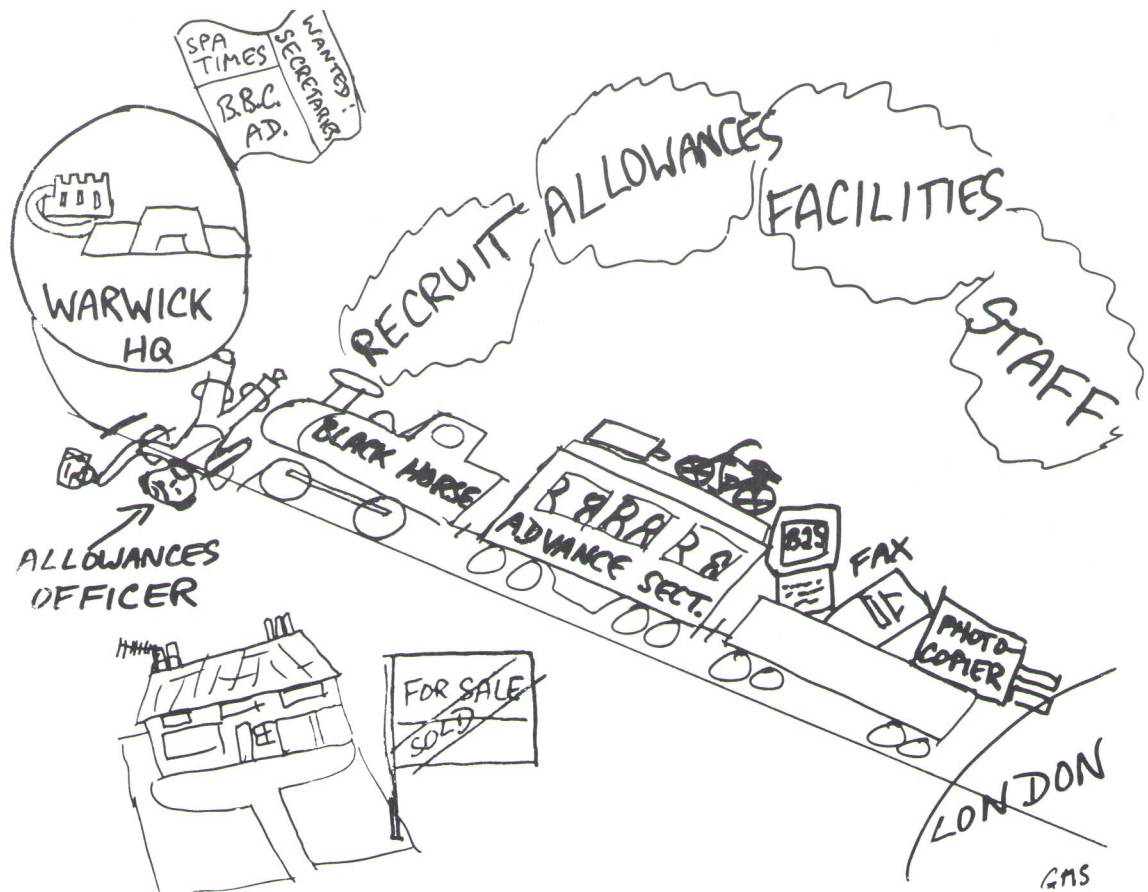


Esteemed members of the 'Pioneer' Corps

LYNDA MOVES ON

Having spent the whole of her Corporation career in Transmission, the last ten years as Secretary to C.E.T., Lynda Bocarisa is now sampling a much wider view of the BBC – she was appointed Personal Assistant to the Director of Personnel (Mr. Christopher Martin) in August.

Lynda joined the Corporation (and Transmission) straight from school in 1974 and worked, initially, as Secretary to Peter Cleminson and then for Bill Denney. With her appointment as Secretary to C.E.T. she worked for George Cook who was followed by George McKenzie, Derek East and Bert Gallon.



PIECE IN R TIME

In times of yore and far away beyond Checkland, two families of planners, the Stupids and the Tepids dwelt deep in the safety of houses for the wild men of the country to occupy as main tenants. These wild men, or abominable opsmen as they were often called, belonged to a tribe called the Setis (akin to another tribe the Setiis, indistinguishable except for their length) who were dedicated to refusing to accept anything the Tepids built for them, aided and abetted by the cunning Techsas Wingers.

In an attempt to escape serfdom the woodland families changed their names, thinking this to be a capital scheme, but to no avail. It was then that the gods in their wisdom decided that it was time for a change and resurrected their famous magician Chequebook (no accounting for taste) from the depths of the Bog. From the four corners of the world he in turn summoned the four witches who transported one poor tribe westward to the dark and gloomy woodlands on the outskirts of the shining White City, from whence they drew their power. Here they cursed these poor innocents with the dreaded black spot which decimated them and left them at the mercy of the city dwellers (they are not to be confused with the Telpiddle Martyrs).

Having curtailed the activities of the Stupids, the dreaded Chequebook now summoned from the Bushes to the east the legendary Wizard of Ops. He gathered the Tepids and the abominable opsmen together on April Fools Day and commanded that they abide in unity and harmony. To ensure that he was obeyed he called down from the fastnesses beyond Offas Dyke, Dai Ognose the Fault, together with his chart-topping group the Allgo-Rythms to formulate the peace treaty.

The leaders of the capital tribes gathered in Norton Wood to receive the new laws and hear Gimtops the battlescarred leader of the opsmen recount tales of conflict from the past and preach of future peace.

Then, as a symbol of the new harmony, old names were abandoned and from that time the Hot Toddies (the old spirit lingered on) and the Teddy Boys (not bears because this was certainly no picnic) lived happily ever after in the shadow of Warlock Castle.



Transmitter Operations : Staff Movements : November 1987

APPOINTMENT

EFFECTIVE

| | | |
|--|-------------------------|----------|
| Tx.Eng., Woofferton | Mr. A. Maddocks | 01.03.86 |
| Handyman, Kirk O'Shotts | Mr. T. French | 12.05.86 |
| Tx.Eng., Daventry | Mr. I. Calvert | 01.06.86 |
| Tx.Eng., Orfordness | Mr. D. L. Mann | 09.06.86 |
| Clerk, Tacolneston | Mrs. A. Attwood | 16.06.86 |
| Asst.Res.Eng., A.R.S. | Mr. F. J. C. Gavin | 19.06.86 |
| Tx.Eng., Orfordness | Mr. C. M. Driver | 23.06.86 |
| S.M.E., A.R.S. | Mr. M. A. Barry | 30.06.86 |
| Eng.Mtce., A.R.S. | Mr. R. M. Whitford | 07.86 |
| S.T.E., Rampisham | Mr. N. J. Whyman | 07.07.86 |
| S.T.E., Cyprus | Mr. M. E. Genner | 10.07.86 |
| T.M., Londonderry | Mr. M. J. Salmon | 14.07.86 |
| Eng.Mtce., A.R.S. | Mr. S. M. Wadsley | 17.07.86 |
| Eng.Mtce., A.R.S. | Mr. M. Asker | 21.07.86 |
| P/T Clerk, Kirk O'Shotts | Miss A. A. B. Paton | 22.07.86 |
| Eng.Mtce., A.R.S. | Mr. T. P. Hardcastle | 26.07.86 |
| S.M.E., A.R.S. | Mr. N. Sylverwood-Brown | 26.07.86 |
| Sen.Eng.(Mech), Daventry | Mr. W. E. Mason | 05.08.86 |
| S.T.E., Cyprus | Mr. J. A. Smerdon | 23.08.86 |
| S.T.E., Masirah | Mr. B. Wadsworth | 30.08.86 |
| T.M., North Hessary Tor | Mr. E. J. Docherty | 01.09.86 |
| S.T.E., North Hessary Tor | Mr. E. D. Johnson | 01.09.86 |
| S.T.E., North Hessary Tor | Mr. R. M. Singleton | 01.09.86 |
| D.M., Holme Moss | Mr. P. L. Harrison | 08.09.86 |
| Supervisor, Wenvoe | Mr. H. R. Hopkins | 08.09.86 |
| T.M.(O), Kirk O'Shotts | Mr. J. R. Barker | 08.09.86 |
| Rigger/Handyman, Daventry | Mr. A. J. Lamb | 29.09.86 |
| P.S.M., A.R.S. | Mr. I. Margetts | 10.86 |
| Tx.Eng., Thrumster | Mr. S. D. Gale | 06.10.86 |
| S.T.E., Masirah | Mr. D. J. Webb | 21.10.86 |
| Tx.Eng., Holme Moss | Mr D. R. Eskrett | 24.10.86 |
| D.M., Crystal Palace | Mr. S. Cresswell | 27.10.86 |
| D.M., Crystal Palace | Mr. P. J. Gray | 27.10.86 |
| Handyman/Rigger, Rosemarkie | Mr. T. B. Brown | 24.11.86 |
| Eng.Mtce., A.R.S. | Mr. G. Hunt | 12.86 |
| S.T.E., Wenvoe | Mr. P. Nicholas | 01.12.86 |
| Eng.Mtce., A.R.S. | Mr. J. B. Goodall | 01.12.86 |
| T.M., Winter Hill | Mr. R. J. T. Baxter | 08.12.86 |
| T.M., Moel-Y-Parc | Mr. A. Austin | 08.12.86 |
| Supervisor, Holme Moss | Mr. J. Bowers | 29.12.86 |
| Tx.E., Holme Moss | Mr. K. Swaine | 30.12.86 |
| Eng.Mtce., A.R.S. | Mr. A. Taylor | 01.87 |
| S.T.E., Rampisham | Mr. A. J. Allen | 01.01.87 |
| S.T.E., Rampisham | Mr. D. G. Greig | 01.01.87 |
| T.M., Masirah | Mr. T. M. Hoskins | 03.01.87 |
| Tx.Eng., Cyprus | Mr. A. P. Colleran | 03.01.87 |
| A.A., Crystal Palace | Mrs. V. J. Exall | 05.01.87 |
| Handyman/Rigger, Crystal Palace | Mr. B. Fisher | 05.01.87 |
| Sen.Eng., C.R.C. | Mr. P. E. Marshall | 10.01.87 |
| Handyman/Rigger, Skelton | Mr. G. Johnston | 19.01.87 |
| S.T.E.Ae., Masirah | Mr. D. C. Parsons | 24.01.87 |
| A.T.M., North Hessary Tor | Mr. J. Macrae | 02.02.87 |
| A.T.M., Moel-Y-Parc | Mr. T.G. Prosser | 02.02.87 |
| Clerk/Typist, Fort William | Mrs. G. M. Fuller | 14.02.87 |
| Handyman/Driver, Skelton | Mr. A. Machell | 09.03.87 |
| S.T.M., Masirah | Mr. W. N. Wilkieson | 14.03.87 |
| S.T.E., Skelton | Mr. C. R. Clements | 17.03.87 |

APPOINTMENT

EFFECTIVE

| | | |
|---------------------------------------|------------------------|----------|
| S.T.M., Cyprus | Mr. B. Rosindale | 19.03.87 |
| Handyman/Rigger, Kirk O'Shotts | Mr. J. Gallacher | 30.03.87 |
| Handyman/Driver, Holme Moss | Mr. B. Green | 30.03.87 |
| Tx.Eng., Hannington | Mr. T. W. Thompson | 30.03.87 |
| T.M.(O), Wenvoe | Mr. A. J. Morgan | 03.04.87 |
| Tx.Eng., North Hessary Tor | Mr. N. M. Williams | 06.04.87 |
| S.T.E., Stockton | Mr. N. E. Elgood | 06.04.87 |
| A.T.M., Winter Hill | Mr. P. C. Sanders | 06.04.87 |
| S.T.E., Winter Hill | Mr. K. T. Little | 06.04.87 |
| S.T.E., Kirk O'Shotts | Mr. K. J. Gurr | 06.04.87 |
| A.A., Rampisham | Miss. L. A. Taylor | 08.04.87 |
| Clerk, Blaenplwyf | Mrs. K. A. Jones | 10.04.87 |
| Tx.Eng., Daventry | Mr. K. Standage | 21.04.87 |
| Clerk Stores, Skelton | Miss. M. Maclellan | 21.04.87 |
| Manager, Hong Kong | Mr. K. T. Gibson | 04.05.87 |
| Tx.Eng., Holme Moss | Mr. I. C. Walker | 04.05.87 |
| A.T.M., Thrumster | Mr. J. W. McIntosh | 05.05.87 |
| Handyman/Rigger, Lisnagarvey | Mr. W. R. Martin | 19.05.87 |
| Eng.Mtce., A.R.S. | Mr. R. M. B. M. Hodges | 06.87 |
| Asst. Manager, Hong Kong | Mr. P. Sandell | 06.87 |
| S.T.A.M., Sutton Coldfield | Mr. D. C. Betts | 01.06.87 |
| Res.Eng., F.E.R.S. | Mr. M. Williamson | 02.06.87 |
| Tx.E., Blaenplwyf | Mr. P. R. Ayres | 15.06.87 |
| Handyman/Rigger, Llanddona | Mr. N. P. F. Morewood | 15.06.87 |
| T.M., Lisnagarvey | Mr. N. J. Marsden | 16.06.87 |
| S.T.E., Pontop Pike | Mr. I. D. Lawtey | 21.06.87 |
| Tx.Eng., Pontop Pike | Mr. F. J. Oletkett | 22.06.87 |
| A.T.M., Hannington | Mr. S. Preston | 22.06.87 |
| T.T.O., Woofferton | Mr. P. Bird | 29.06.87 |
| Handyman (Mech), Daventry | Mr. A. Wallis | 29.06.87 |
| T.M.(O), Sutton Coldfield | Mr. G. N. Bath | 07.07.87 |
| A.T.M., Crystal Palace | Mr. R. Sharp | 13.07.87 |
| S.T.A.M., Crystal Palace | Mr. B. Haseler | 20.07.87 |
| A.T.M., Rowridge | Mr. W. J. Vince | 20.07.87 |
| S.T.E., Hannington | Mr. A. Alcock | 20.07.87 |
| Tx.Eng., Hannington | Mr. C. J. Smith | 20.07.87 |
| Clerk/Typist, Daventry | Miss A. J. Graham | 21.07.87 |
| T.M., Crystal Palace | Mr. E. Picketts | 01.08.87 |
| T.M., Wrotham | Mr. G. Keys | 03.08.87 |
| T.M.(O) Woofferton | Mr. D. H. Green | 03.08.87 |
| T.M.(M), Woofferton | Mr. R. J. Gay | 03.08.87 |
| A.T.M., Wrotham | Mr. J. J. Ward | 03.08.87 |
| Handyman/Driver, Woofferton | Mr. A. Fletcher | 04.08.87 |
| T.M., Hannington | Mr. C. G. Gregory | 10.08.87 |
| Rigger/Handymnan, Woofferton | Mr. R. J. Davies | 11.08.87 |
| S.T.E.Ae, Cyprus | Mr. G. D. Parr | 15.08.87 |
| T.M.(O), Holme Moss | Mr. P. J. Woodward | 17.08.87 |
| Mech.Mtce.Eng., Masirah | Mr. W. D. Lawrey | 19.08.87 |
| Tx.Eng., Crystal Palace | Mr. H. J. E. Gibson | 20.08.87 |
| Supervisor, Rampisham | Mr. C. W. Bartlett | 24.08.87 |
| S.T.E., Hannington | Mr. G. D. Drinkwater | 03.09.87 |
| A.T.M., Lisnagarvey | Mr. J. R. Fullerton | 07.09.87 |
| S.T.E., Masirah | Mr. D. J. Plater | 12.09.87 |
| Clerk, Daventry | Mrs. A. Cockerton | 14.09.87 |
| Tx.E., Crystal Palace | Mr. P. J. Doherty | 14.09.87 |
| Clerk (V.S.), Daventry | Mrs. K. L. Ede | 14.09.87 |
| Clerk Typist, Skelton | Miss A. E. Johnstone | 21.09.87 |

*APPOINTMENT**EFFECTIVE*

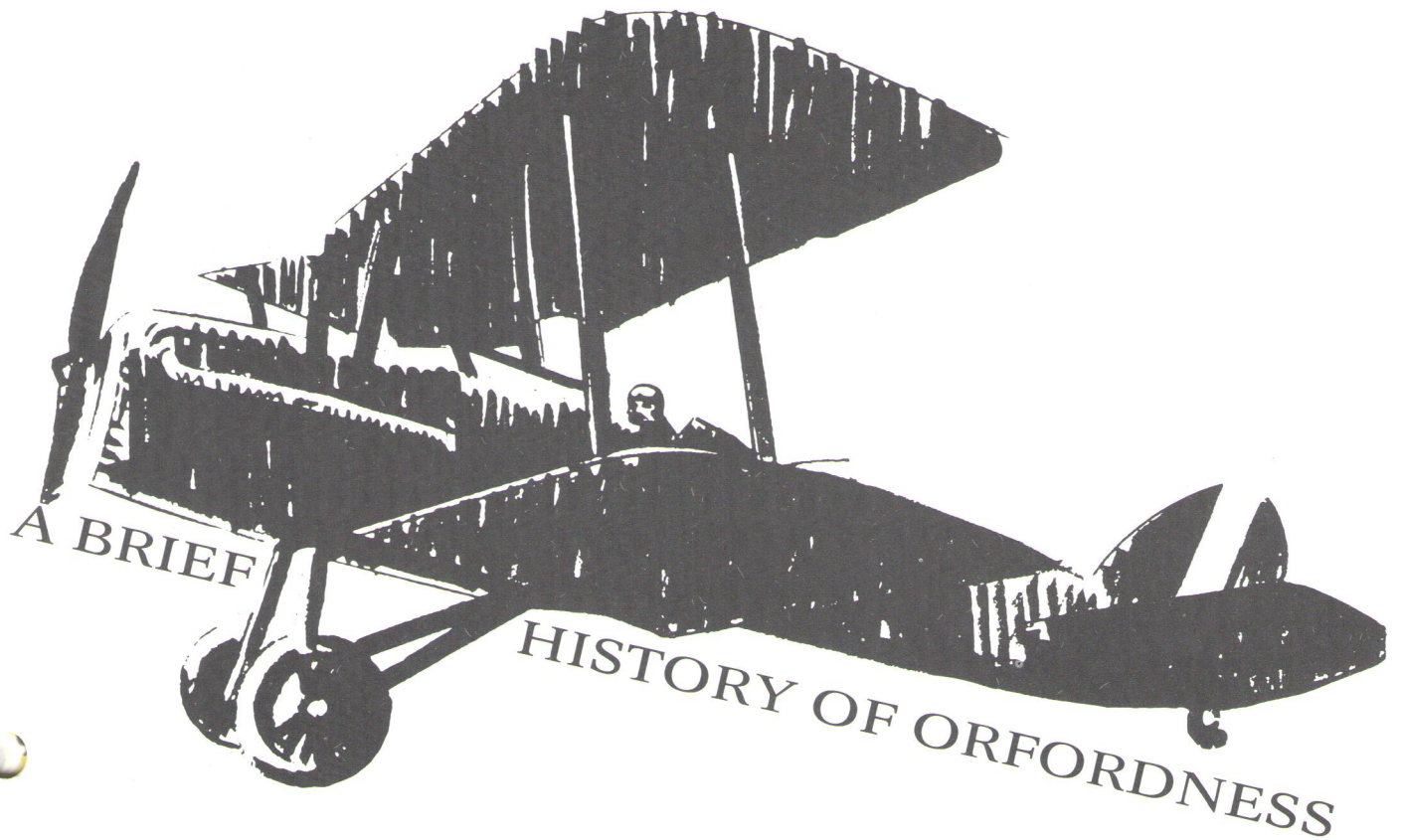
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|-----------------------------------|------------------------|----------|
| S.T.E., Blaenplwyf | Mr. P. J. Rourke | 21.09.87 |
| S.T.M., Daventry | Mr. A. J. Kendall | 28.09.87 |
| S.T.E., Wrotham | Mr. R. Harrison | 12.10.87 |
| Tx.Eng., Wrotham | Mr. P. C. Chamberlain | 12.10.87 |
| Tx.Eng., Wrotham | Mr. P. G. Foster | 12.10.87 |
| T.M.(O), Rampisham | Mr. R. M. F. Mathewson | 12.10.87 |
| Clerk/Typist, Wrotham | Mrs. E. B. Martin | 12.10.87 |
| Handyman/Rigger, Wrotham | Mr. T. J. Nutley | 12.10.87 |
| S.T.E., Wrotham | Mt. M. Pickworth | 12.10.87 |
| S.T.E., Hannington | Ms. A. K. Bateman | 12.10.87 |
| S.T.E., Masirah | Mr. P. Sherdley | 17.10.87 |
| A.T.M., Masirah | Mr. D. A. Rayney | 17.10.87 |
| Tx.Eng., North Hessary Tor | Mr. J. L. Gould | 01.11.87 |
| Tx.Eng., North Hessary Tor | Mr. B. J. Parry | 01.11.87 |
| Tx.Eng., Angus | Mr. J. Hollinghurst | 02.11.87 |
| Asst.Co. Manager, C.R.C. | Mr. E. R. C. Hamblin | 14.11.87 |

HEAD OFFICE MOVEMENTS

| | | |
|--------------------------------------|---------------------|----------|
| Registry Clerk | Mr. J. Cook | 08.09.86 |
| Secretary, Support Services | Miss N. J. Duckett | 13.10.86 |
| Secretary, Support Services | Miss A. Scott | 03.11.86 |
| Secretary to H.E.Tx.Ops. | Miss J. S. Culley | 17.11.86 |
| Secretary, Support Services | Miss A. M. Antoniou | 21.1.86 |
| Engineer, Comms.Ops. | Mr. J. A. Burns | 15.12.86 |
| Engineer, Comms.Ops. | Mr. M. D. Rivers | 05.01.87 |
| Assistant, Support Services | Mrs. S. J. Gorbitt | 02.02.87 |
| Secretary, Support Services | Miss W. K. Smith | 30.03.87 |
| S.T.A.M. Overseas | Mr. A. Rees | 01.07.87 |
| Tele.Maint.Sup., Comms.Ops. | Mr. F. A. Williams | 01.07.87 |
| Engineer, Comms.Ops. | Mr. P. R. Harrison | 17.08.87 |
| L.Switch.C.Sup., Comms.Ops. | Mr. M. K. Patel | 30.09.87 |
| Eng. Technical Investigations | Mr. G. Beeke | 19.10.87 |
| P.E., Power Systems | Mr. P. Tymkow | 21.10.87 |
| Secretary to H.E.Tx.S.S. | Miss A. J. Burg | 02.22.87 |

TITLE CHANGES

- S.T.A.M. Kirk O'Shotts to Transmission Area Manager (**Scotland**)
- S.T.A.M. Wenvoe to Transmission Area Manager (**Wales & West**)
- S.T.A.M. Sutton Coldfield to Transmission Area Manager (**Midlands & Northern Ireland**)
- S.T.A.M. Holme Moss to Transmission Area Manager (**North**)
- S.T.A.M. Crystal Palace to Transmission Area Manager (**South & East**)
- S.T.A.M. Overseas to Transmission Area Manager (**Overseas**)



Orfordness, with its red and white banded lighthouse, protrudes into the grey North Sea on the bleak Suffolk coastline midway between Aldeburgh and Felixstowe. Barely rising above sea level it is separated from the mainland by the river Ore which flows from the river mouth at the southern-most point, past Orford village and becomes the river Alde on approaching Aldeburgh to the north. The river is navigable until it reaches Snape, home of the famous Maltings Concert Hall. There are no trees on Orfordness and the land is a patchwork of dykes, attractive only to a varied assortment of wild game and water fowl. During the winter months the desolate countryside is buffeted by high winds and battered by the elements. Referred to as 'The Island' by the locals, Orfordness is, in fact, connected to the mainland by a very narrow stretch of shingle bank, and is only accessible either by a landing craft type ferry, run by the Department of the Environment, which plies across the river from Orford, or by Land Rover along the shingle bank from Aldeburgh.

In 1911, two American airmen carrying out trials in San Francisco were responsible for the first explosive bomb dropped from an aircraft, whilst later in that same year the Italians were the first to use the aeroplane as a weapon of war during the Italian-Turkish conflict. Many smaller bombs were experimented with in the early days of World War I, mainly anti-Zeppelin weapons designed to be dropped onto the German airships. Armament and ballistics were to become a part of the history of Orfordness and, in the summer of 1915, the Experimental Flying Section of the Central Flying School at Upavon, Wiltshire sent its Armament Experimental Flight to 'The Island'.

The following year, work commenced on the construction of an airfield and, after much general clearance work, the ground was levelled and a primitive runway laid out facing into the prevailing south westerly wind. No. 37 Squadron R.F.C., which was formed on Orfordness on 15 May 1916 as an experimental Squadron, was merged one month later with the Orfordness Experimental Squadron. Experiments were carried out at this time involving bombers and bomb release gear but few records are available. Other work included machine gun armament and the evolution of tactics to be employed in aerial combat, and also the dangerous task of recovering unexploded bombs dropped during testing.

A man called Calthorpe invented the parachute. During January 1917 he arrived at Orfordness and began testing what was known as the 'Guardian Angel'. The canopy and rigging lines were stored in a special container attached to a bracket beneath the aircraft, but although tests carried out with the parachute were successful the equipment was shelved as the escape procedure was considered too complicated for the pilot of a crashing aircraft.

Aerial photography was also investigated at Orfordness. Vertical photography was a very dangerous operation as it involved the aircraft flying as close as possible directly over the centre of military targets. Oblique photography was shown by its inventor, Hammond, to be a successful device, but was held in abeyance until the advent of World War II when it was used with excellent results.

On 30th May, 1918 the R.N.A.S. from the nearby Felixstowe Air Station began a very interesting operation off Orfordness. A 30 ft. platform was erected on a special high-speed hull which enabled it to be towed rapidly behind a destroyer or cruiser. At the rear of the platform was a single seater Sopwith bi-plane with the legendary Lt.-Col. Samson, D.S.O. in the cockpit. The destroyer H.M.S. *Truculent* took the contraption in tow, turned into wind and picked up maximum speed. At a given signal, ratings on board the lighter started the rotary engine and, after a warm up run, received instructions to release the attachment shackles. The plane picked up speed, staggered into the air and landed safely back at base – the fore-runner of the aircraft carrier.

The aircraft hangar, which still exists on 'The Island', was erected during the period and was used to house Vickers Vimy bombers which arrived just before the war ended. The Armament Experimental Squadron closed down in 1921 and the Orfordness establishment was placed on a care and maintenance basis with a warden in charge.

In 1924 Orfordness re-opened as a satellite to the Martlesham Heath station and was once again used as a firing and bombing range. All armament testing work was carried out there.

At the same time great progress was being made in the field of wireless communications and a beacon was erected at Orfordness for use by merchant shipping. After some initial success a wooden tower building was built about half-a-mile from the Lighthouse, and this housed another wireless beacon. Until the late 1920's this was used for experiments into ship to shore communications, and still stands today.

During the 1920's and 1930's the volume of armament research work in no way compared with that of aerodynamics and power plants, but trials and experiments still continued at Orfordness. The armament of the prototype Spitfire were tested in 1935 and, as war loomed nearer, many more aircraft designs were produced and in turn their armaments tested. Life at Orfordness became more hectic. Thus, at the beginning of the war The Island's ranges grew quiet, but enough information had been gained to calculate for all the ordnance used in the first years of World War II.

In this remote part of East Anglia, radar, the modern wonder that is now taken for granted, has its origins. It was known in its early days of conception as Radio Direction Finding (R.D.F.). During the first months of 1935 research into R.D.F. was done on a shoe-string and very few people were involved. The first conception was investigation into death rays using R.F. power. The Air Ministry, with great consideration for the tax payer's pocket, offered £1,000 to any inventor who could kill a sheep at 100 yards using a death ray. The sheep population remained intact! The radio death ray seemed an impossibility.

It later became known that Post Office engineers several years previously had noticed disturbances to V.H.F. reception when aircraft flew in the area of their receivers, and it was felt this information could prove useful to the Air Ministry for detecting enemy aircraft. The transmitters at Daventry were used in experimenting with the effect of aircraft on H.F. transmissions.

In 1936 Sir Robert Watson-Watt was instructed to set up apparatus on similar lines to that used in the first experiments in the 1930s. As the work was to be top secret in nature, Orfordness was selected as a suitable site, partly due to its isolation and also because flight co-operation could be readily obtained from nearby Martlesham and Felixstowe. The existing buildings on The Island were of World War I vintage, and urgent renovation work started on one large hut for transmitter development and three small rooms for receiver work. Two 75 ft lattice towers were erected to carry the transmitting aerials.

The main problem concerning the transmitter was to generate a pulse of about 10 microseconds duration and of the largest possible peak power. Aerial design problems were discussed with Post Office engineers at Rugby and B.B.C. engineers at Daventry and The Crown and Castle Hotel at Orford hosted many late night discussions between Watson-Watt and his assistants.

It wasn't long before aircraft were flying up and down the Suffolk/Norfolk coast, mostly at a height of 15,000 ft, the maximum height without oxygen. Pilots were naturally curious, and had been told that a method of locating aircraft by picking up the radiation from their magnetos was being investigated. They were sceptical.

Gradually detection of aircraft improved with the help of increased transmitter power and more advanced design of receivers. By December 1935, after seven months work at Orfordness, a transmitter of 100 kW peak pulse power had been developed with a pulse width of about 10 microseconds. Performance in aircraft range finding with this equipment was such that, on a single aircraft flying at 7,000 ft, detection could be achieved at 70 km to an accuracy of half a kilometre. At 15,000 ft, the range was 85 km.

At this stage, the Treasury sanctioned a chain of R.D.F. stations to be used in the defence of London, and the Orfordness operation was then moved a few miles down the coast to Bawdsey where a large manor house was purchased. During 1940, when our country was at war, this radar defence system proved its worth.

In the early months of the war most of the activity was confined to off-shore skirmishes between the Luftwaffe and the R.A.F. Even Mussolini got in on the act and on November 11th, 1940, ten Fiat twin-engine bombers and forty Fiat Freccia bi-plane fighters based in Belgium attacked Harwich. The Italian formation was attacked by Hurricanes of 46 and 257 Squadrons, the latter flying from Martlesham. Several enemy aircraft crashed and one, a fighter which made a forced landing on the beach at Orford, is now in the Battle of Britain Museum at Hendon. The pilot is recorded as having said he was convinced he'd come down in the desert and would be doomed to die of thirst, so bare and desolate was the area in which he'd landed!

For the rest of the war years the R.A.F. remained at Orfordness, staff being occupied with experimentation and testing of various armaments. At the end of the war this continued under the auspices of civilian staff.

In the early 1950's the atomic bomb was being developed and, once again, Orfordness was chosen for the field trials on the arming and firing mechanisms.

Strange buildings were constructed on part of the old ranges and these were surrounded by large earthworks. A number of scientists and specialists appeared in 1953, and the station became known as A.W.R.E. Orfordness. Huge test cells were erected and these were constructed to the concept that, in the event of a mal-function, an extremely heavy reinforced concrete roof supported on relatively weak pillars would descend and, hopefully, seal the cells.

During the night of 31st January, 1953, exceptionally high tides in conjunction with high winds breached the river walls and flooded the lower part of The Island. The damage caused necessitated heightening of the river walls, and work was immediately put in hand, but it was almost ten years before this was completed.

Whilst the majority of Britain basked in the holiday sunshine of August Bank Holiday, 1956, an event of great importance was taking place within the solitary vastness of the A.W.R.E. site at Orfordness. In the earth shielded building with lines not unlike those of an Eastern temple, known as Laboratory One or, more locally Lab One, the first major environmental experiment was carried out. This was the culmination of many months of slowly progressing research towards this goal and the department involved, the Weapons Group, had steadily and hopefully come up to the specified date and time for the test. The timing was imperative as the test object was an integral part of an atomic device which was to be test dropped over the desert range in Australia, and the success or otherwise of the August trial would be the all-important deciding factor for the major test.

This test was to determine that the large weapon was capable of being transported without disturbance to its internal mechanisms. Damage could have been sustained by vibration, either through loading or via the aircraft's structure whilst in flight. An excessive amount of disturbance could have caused irreparable damage to the fragile components within the device.

Not the least of the problems were the size of the object under test and the fact that it was a live one – live in that it contained conventional high explosive, the start for the main reacting process.

From 1956 onwards, environmental testing of atomic weapon trigger devices was carried out at Orfordness Research Station and the tests were conducted by A.W.R.E. staff working under control of the R.A.F. Trials Department.

As finer test techniques were developed many of the hazards involved diminished. It was decided it would be safe and economically desirable to move nearer to the parent establishment at Aldermaston, Berkshire, and in 1969 Orfordness virtually closed down.

It was during this period of history that the present ferries were acquired. The larger one, *Portree 2*, a former Isle of Skye ferry, was purchased and converted to a front loading ramp type. As this was happening activity was taking place on the northern part of The Island, but this time many of the men going over on the ferry spoke with an American accent. The Ministry of Defence and the United States Department of Defence had agreed to collaborate with the construction and operation of a radio research station at Orfordness. Over the months an enormous grey structure gradually rose above the marshes and this was eventually accompanied by a vast array of aerial masts holding 18 log periodic aerials, each 2,040 ft long, in a most complex fan-shaped configuration.

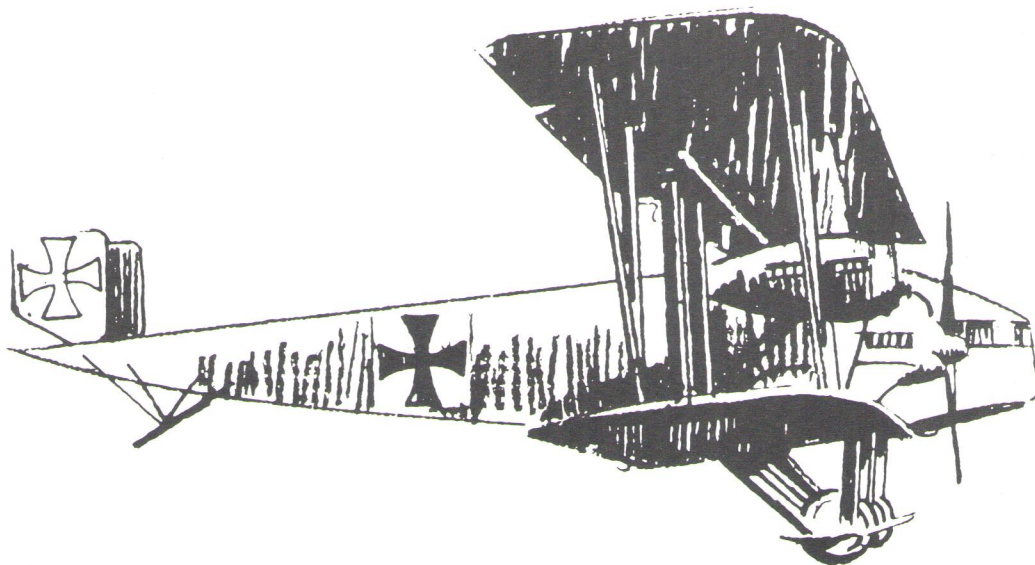
Although officially designated as a Radio Research Station it was common knowledge that this was an over the horizon H.F. radar, aimed at the eastern block countries. 450 personnel were employed on what was known as the Cobra Mist site, comprising 150 U.S. and R.A.F. servicemen and 300 civilians.

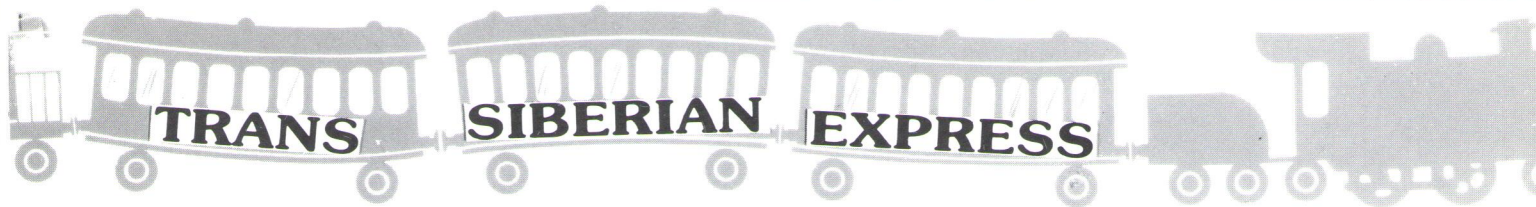
During the early summer of 1973 it was decided that, although an enormous amount had been learnt in the field of long-range H.F. communications, Orfordness was no longer a viable proposition and it was closed down at midnight on 30th June.

In 1975, the F.C.O., looking for new sites, visited the ex Cobra Mist site and decided to install a 50 kW Continental M.F. transmitter to work in conjunction with ASPI 1 at Crowborough. This proved a great success. During the next few years the building was gradually stripped of all the remaining American equipment until a bare transmitter hall 35 m × 40 m emerged. In 1977 a 500 kW M.F. transmitter on 1296 kHz. was installed, and in 1982 the 50 kW transmitter was replaced by a 500 kW on 648 kHz.

The latest occupants of the building are the B.B.C, who, from 1st April, 1986, have been contracted by the F. & C.O. to provide management, staff and technical support for the running of the Station.

Compiled by John Hunt, A.T.M., Orfordness who for 24 years was with the Broadcast Group of the F. & C.O., from the book 'Orfordness Secret Site' by Gordon Kinsey.





Across a continent by train, from Hong Kong to Leningrad. It sounds like a dream trip, and it was, but everything was well organised and it all went like magic.

BOOKING

We booked the holiday through G S Travel Pte Ltd. in Singapore and they in turn used Wallem Travel Ltd. in Hong Kong. Jules Verne Travel and P. & O. offer more expensive but similar routes. Even in retrospect the costs seemed very reasonable. 'We' were a family of four with two boys aged 12 and 10 and being four certainly avoided the possibility of sharing a sleeper with strangers.

The standard package was for Hard-Class' from Beijing (Pekin) to Moscow and soft-class on the overnight sleeper to Leningrad. Although hard-class on International routes means four bunks to a cabin, two up and two down, on national routes inside China it has six bunks. Soft class was a slightly higher cost option, but was still four bunks, but cloth instead of plastic covered seats, and possibly better air-con. There were only a very few de-luxe class berths, with two bunks to a cabin.

Various options on the route are possible. The true trans-Siberian 'Big Red Train' or Rossiya, runs from Vladivostock to Moscow. This route avoids the necessity for Chinese or Mongolian visas but does mean starting the journey by ship from Japan. Another route out of Beijing avoids Mongolia. The train could be taken all the way from Hong Kong, and again at the other end to Helsinki, or to Poland and Berlin and Western Europe. Our time was limited so we flew from Singapore to Hong Kong, and after a short stay on to Beijing.

Chinese and Soviet visas are required to be obtained before departing, and the relevant embassies needing passports and four photographs each (black and white only in the case of the Soviets). The Mongolian visa could only be obtained in Beijing and this was one of our worries as no help could be guaranteed.



Hard Class on the Chinese Train

CHINA

After a lengthy queue in the rather primitive Beijing airport with hardly any baggage trolleys we escaped through Immigration. Suitcases on wheels and only taking what one can comfortably carry oneself was a boon. We were met by a Scenic China guide and whisked off to the Hua Du Hotel in two taxis. There we discovered that not only did we get the vouchers for the trips we insisted upon – Great Wall and tour of Beijing – but also for a cultural show and Peking Duck dinner. In fact off the train hardly a free moment existed.

Now to the problem of that Mongolian visa. It would pay to check the opening times of the embassy right away as the brochures were not accurate. Luckily we had a friend who knew someone inside so we were not turned away as some other unfortunates. The transit visas cost US\$15 per person for same day processing but much less if passports, Soviet visas, forms and 3 photographs (signed on the back) were left one day and collected the next. Going on tours makes this difficult so we hired a taxi to follow the 'city' tour bus and make side trips to the Mongolian Embassy to deposit and collect our visas. Doing this we just caught up with our tour at lunchtime and paid off the taxi (£10). Otherwise it was no problem.

Although the Great Wall was a wonderful sight, and not to be missed despite a stiff climb to the top, the Ming Tombs were nothing to write home about. This tour took in the Avenue of Animals – stone statues. The city tour took in Tien a Min Square, and the Forbidden City, a jade factory and various other places but we didn't have time to go to the Summer Palace by arriving on the Sunday and leaving on the Wednesday.

There was a selection of most beautiful old clocks and some were studded with sapphires and rubies, one a bird cage – fascinating.

Although there was not so much choice as in Hong Kong the silk in the Friendship Store was only £3 per metre. There were lots of other bargains to be had but the assistants are quite unhelpful on the whole and couldn't care less. The best 'Store' was next to the Pekin Duck restaurant in an old palace or religious establishment and I really should have bought one of the wonderful rugs from there.

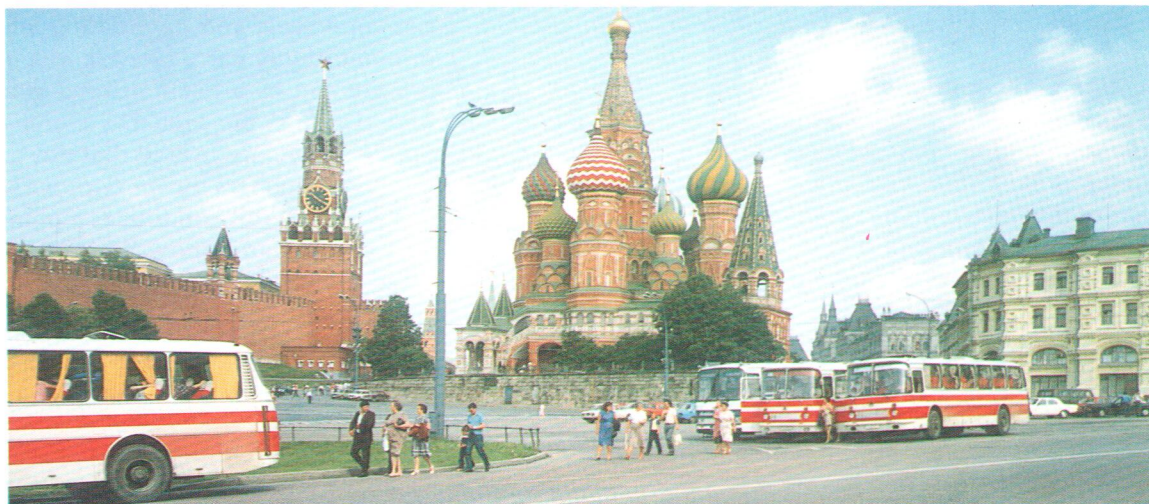
FOOD & DRINK

Lots of people advised us to take plenty of food and drink along for the train journey and this was in part good advice. Best buys before the holiday were anything that could be made with hot water – tea, coffee, cup-of-soup, noodles and dried milk/creamers although it was always possible to get tea on the train. A good stock up was possible in Beijing for cold/smoked meat, fruit (but limited so bring some before), biscuits, sweets, tinned fruit, cheese, nuts, crisps, bread and rolls. One could go to the Friendship Store for this (not far from the Mongolian Embassy) but a better place was a Western style supermarket and Delicatessen at the Lido (Holiday Inn) Hotel. It was also best to stock up from your local chemist/pharmacist before leaving home. The beer was plentiful in choice as well as being available on the train in China only but it would be worth taking some spirits along. Just don't get caught drinking it on the Soviet train as some of us did – there is a big clamp down on drink in the U.S.S.R. just now and drinking it on the trains is definitely illegal, at least for locals.

Local restaurant cars (Chinese/Mongolian/Soviet) were attached to the train in turn and offered wholesome but mediocre food. Chinese money (FEC's) could be used up to the border but through Mongolia only US dollars were taken, change being given in chewing gum or sweets. It paid to have some US change and plenty of small notes. A breakfast cost US\$3 and other meals about US\$5-8. The Soviet car took roubles but only change what you need at Irkutsk as most things for tourists were only paid in foreign currencies or plastic. From 10–25 roubles (£10–£25) per person would be needed between Irkutsk and Moscow, depending whether or not three meals a day were taken.

Souvenirs were also available in the restaurant cars and could be good bargains.

The Kremlin and St. Basil's Cathedral



THE CHINESE TRAIN

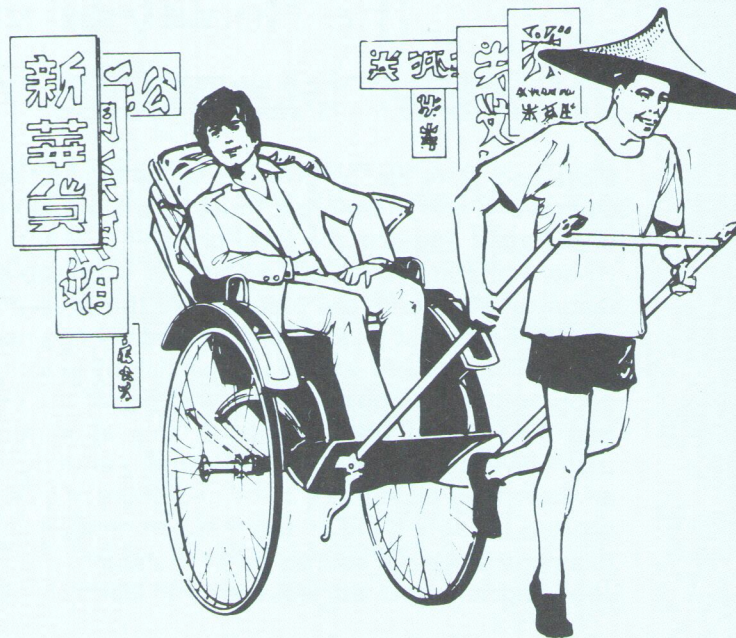
Again there were no trolleys at the station so a long walk ensued down the platforms to find the right carriage. It was right at the end but due to a tight shuffle and shunt by the engine around up in the hills it became the front later. No photos were allowed of the engine here but things weren't so strict in the country stations. We followed the Great Wall for many miles with wonderful views and passed through places such as Datong where three steam locos are made every week. Although we were never pulled by steam, we did get shunted by a steam engine at Erlian. A two-hour stop here was to change the bogies from the Chinese (English) to the wider Soviet gauge. After customs on this border town we could pass the time at the station bar, buying last minute supplies and changing any FEC's back to US\$. Getting away from Erlian at midnight was no great help because once over the Mongolian border we stopped again for the Mongolian customs. This was a more brutal affair.

MONGOLIAN TRAIN

On across the Gobi desert, with an intermittent track alongside. That was the main road north! Long unbroken vistas became punctuated by herds of camels or wild horses, yurts and men on horseback. As the terrain improved we passed townships, an airfield and two very large transmitting stations (one MF and one HF). At Ulan Bator some more tourists joined the train although how they got stop-over visas was a mystery. I think it was very expensive.

Leaving Mongolia was the worst part. All the windows had to be closed and we had to sit in our cabins. A good search ensued and it was obviously wise to hide our cameras away as any showing were removed for the duration. After this we were very apprehensive about the Soviet entry but they were not nearly so bad. Any unmarked tapes had to be checked by listening, and foreign guide books and maps should be well hidden. As usual totals of money and funds had to be written down on the forms. Again it was after midnight before we got on our way.

To be continued.



Passing the time!

The Reality of the 2S List

The 2S List has caused a good deal of comment among junior staff and, of course, it is the adverse comment which is heard most.

More and more the 2W post is seen as the first real point of stability in Transmission Operations and therefore it must be the aiming point of everybody coming into the department and sets the level of training. Another way of putting this is to say that when someone is recruited there is a 2W post guaranteed him/her provided the technical standards are met. Before the present system there was competition for 2S/2W. Each post was advertised and 2N engineers had to decide whether or not to apply. They had to weigh up the risk of ignoring the first job, perhaps in an area geographically unpopular, and waiting for the next one (when and where unknown) and then taking their chance at this appointment board. Many people paraded themselves time after time before finally landing a job. For many it was a disillusioning and worrying experience at the beginning of a career. Many managers involved in the process thought it unfair and that competition should not enter into appointments at this early stage. Of course, other managers put this thought to one side in favour of choosing someone not necessarily on technical merit who would fit into a small team.

Recent Engineering recruits do not know about these days, or if they do, choose to ignore them. They optimistically assume that in the competitive system they would win. Well, it has to be noted that everyone cannot be winner and the competitive process is not always predictable.

Not only is the 2S List a more just way of dealing with people embarking on a career but it also gives them better choice. It is still not possible to be sure when 2W posts become available but now at least the competition is seen to be the number of people ahead on the list and that number diminishes; the variables are easier to predict.

How quickly does the List change? The true answer is not known yet. There are not enough statistics yet available in three years to give a good prediction, particularly since the early period was distorted by special factors thrown up by the reorganisation.

What can be said is that some people will move quickly because they are prepared to take the unpopular postings, others will take a long time because they have decided to narrow their options on one or two chosen spots. It is the average which is of general interest and present indications are that this average engineer will spend roughly 3½ years on the 2S List. It will obviously vary with the ebb and flow of retirement and wastage over the years but a more refined system will in time yield a more precise indicator of the period spent in the reserve position.

Time also will prove that the change in the method of achieving 2W status was for the overall good. There is plenty of room for competition beyond 2W and it is never too early to start.

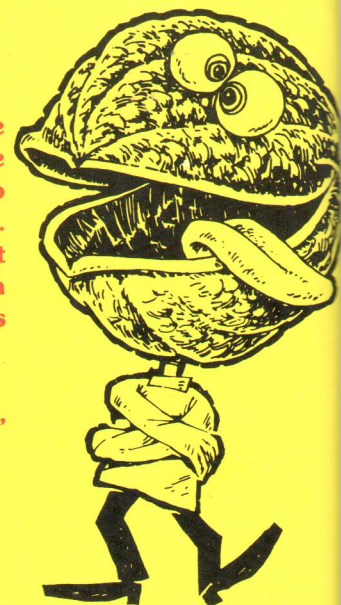
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HEALTH and SAFETY notes

“Well, guv, I’ve put on me safety boots, cleaned me goggles, strapped on me orange jerkin thing, put out seven boards tellin’ people about grass cuttin’, went over the grass lookin’ for stones and things, checked the oil and petrol in the mower, ’ad to wait for the mechanic to come and adjust the motor, and filled in me bonus sheet. Then I ’ad an’ ’eadache from wearin’ me goggles an’ all that, so I left the site to get an aspirin from the office, but I fell over one of them public warning notices (which only ’ad writin’ on one side) and knocked me ’ead against your bloody car which was parked in a dangerous place.

“I’m now on me way to fill in the accident book, make out a claim for compensation, see me shop steward and contact me solicitor and ’e’ll be gettin’ in touch with you.

“No, I ain’t cut no grass.”



The Hanging Gardens

(A TALE WITH A MORAL FOR YOUNG CHILDREN)

Once upon a time, my children, the Sultan made a great garden on the sands outside the city. It was to be for the pleasure and instruction of all the people. Cunning builders were found who made foundations and walls and raised a great building all around the garden. Men of ingenuity brought waters from far away in aqueducts. They made pools and fountains and devised ways of raising the water on to the walls so that the garden seemed to rise on the walls into the sky.

But the gardeners excelled. They grew magnificent single blooms, they made wonderful effects with banks masses of colour, they created beautiful vistas of trees and shrubs and fountains and they changed all of this continually so that the people always had new delights. When one flower had bloomed or a bank of colour had faded it was replaced with another. New vistas were created to replace those which had palled. And all the time the necessary walls and water seemed to appear by magic, such was the cunning and ingenuity of the builders.



For many years it continued to grow and expand and to rise into the sky so that it came to be called 'The Hanging Gardens'. Its fame spread so far that travellers came from all over the world to admire it. When they went home many tried to copy it, but none succeeded. It was a wonder of the whole world.

And all of this the Sultan financed by a small tax on all the citizens – we called it the *Arpete*. At first all the people were happy to pay to enjoy the wonders of the garden. But as time passed they became used to it and they began to murmur against it. They said 'how extravagant' and 'the tax is too high' and 'there are too many gardeners' and many other such things. And the older citizens, those no longer working, who used the garden all day when the others worked said that they could not afford the tax. And a wag in the market said that this was really a 'Regressive Poll Tax', but no one understood him.

Then the sellers of camels began to say that they would pay to use the garden. Their camel droppings would improve the garden too. The rent would reduce the *Arpete*. The wine sellers and the spice merchants and even the teller of tales in the market place all joined in. They all wanted space in the garden to sell their wares.

At first the board of gardeners who ran the great garden took no notice. The Sultan, though, had heard the murmuring of the people and would not agree to increase the *Arpete* so that the garden could continue to expand and grow as it always had done. Even the most persuasive arguments could not budge him.

Soon the board of gardeners began to think what to do. Many ideas were put by those who thought no further than their next bloom or their next effect. Few, if any, took heed of the work needed to keep the desert out and to supply the water. At last they agreed on a plan. They said, "We must restore the garden in the esteem of the people. It must be made bigger and better. Since we have no more money we shall save money by having fewer builders and water workers and we can use sand to make concrete to raise the walls higher. As for the builders, if we need them, can we not hire them in the market for a penny a day".

Some wiser people tried to warn them of the folly of this plan. Even the builders and the other ingenious people who had created the conditions in which the garden could flourish warned them. But these warnings were ignored because those people were held to have vested interests and not appreciate the needs of the garden. So the plan went ahead.

Many of the people who had devised the ingenious irrigation schemes went elsewhere. Builders left too and as they went some wondered at the digging of the sand from the base of the walls to build the walls higher. For a brief period the gardens grew even higher and richer. But the people murmured even more about the extravagance and the cost. The gardeners were perplexed and did not know what to do. While grandiose plans for even greater gardens were being considered by the gardeners the gardens began quite suddenly to collapse.

At first only a wall here and there fell, crushing a few flowers and trees, because its foundations had been exposed and undermined. Yet the rate of collapse increased and as some walls fell they damaged the water systems and greater areas of garden ceased to bloom.

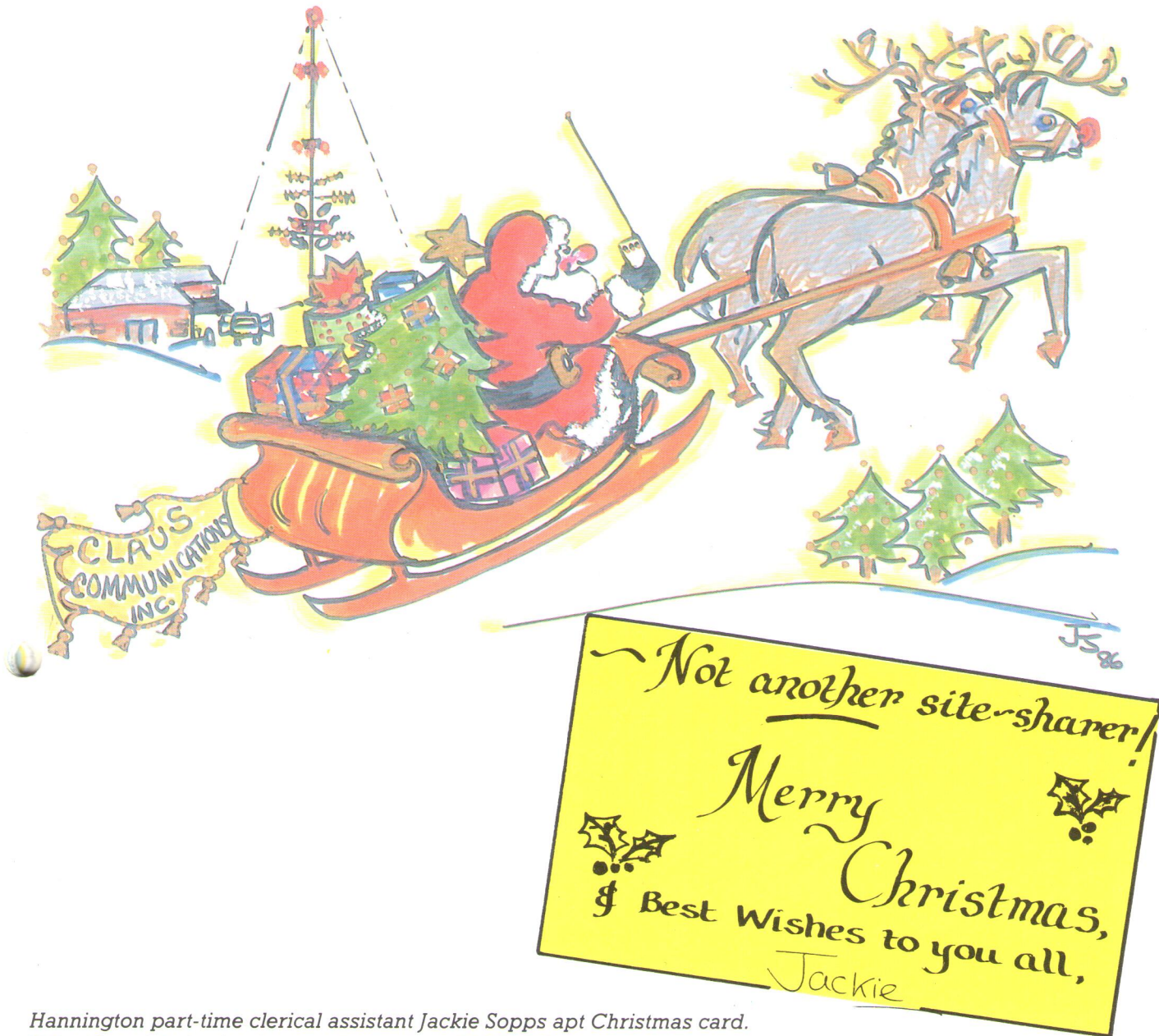
The board of gardeners were, of course, much concerned by all this. Labourers were hired in the market place to make repairs. But they could not understand the subtleties of the water system so they quoted very high costs of repairs – they would have to get experts from distant lands. The costs of everything had risen tenfold and underpinning of the walls was labour intensive. All this they said because they did not want the job – they were afraid and did not wish to show their ignorance.

The board were stunned by this outcome of their plan. The cost of repairs to the garden was now so great that they knew not what to do. It was too late to try to re-engage those people who had originally built the garden even if they could be found scattered as they were to the four winds, nor after their 3 or 4 years elsewhere would they wish to return.

But it was too late for the board of gardeners. Even as they wrung their hands in despair the crumbling edifice of the garden collapsed in upon itself. So complete was its fall that little was left and that was gathered up by scavenging citizens for their own gardens and window boxes. Soon the sands rolled back over the place where it had been. A wonder of the world was no more.

I met a traveller from that land who told me he had written a poem on the site of the former gardens. It concluded with the line – 'The lone and level sands stretch far away'.





Hannington part-time clerical assistant Jackie Sopps apt Christmas card.
 N.B. - Our site sharing income is now near £1,000,000 p.a.



The Year 1985 Scottish Transmitter Trophy:
Winner Bob Davies; **Runner-up** Arthur Masson. John Bews, Prize for longest journey.

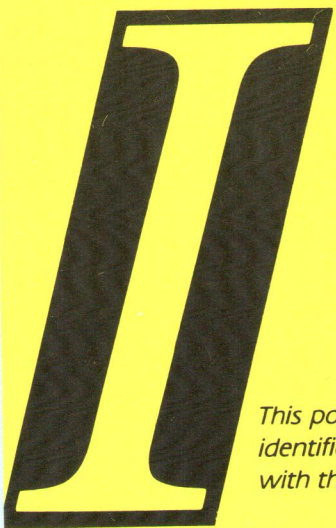
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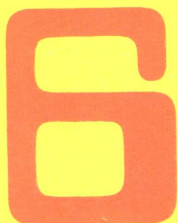
IF



IF you can face a "re-org" and take it on the chin
IF you can change department and not kick up a din
IF you can move your office and not find it a bore
IF you can take on "turnkey" and feel your spirits soar
IF you can meet your targets by working extra hours
IF you can keep on smiling when gloom above you towers
IF you know who your boss is from one week to the next
IF you can change your title and never show you're vexed
IF you can move to Warwick and give a merry grin
 You're a better man than I am, Gunga Din.

This poem was sub-contracted by one R. Kipling on a turnkey basis to an anonymous author, identified only by the initials DWG. The poem was late and the last two lines did not comply with the specification!

SIX DANGEROUS MYTHS



The computer is merely a tool. Automation frees the mind for higher things.
People control computers, not the other way round. We have entered the Information Age.
Computers do only what you tell them to. The individual is powerless.

K. Viney
 Tx.Ops.



DISENCHANTED DICTIONARY

From time to time people produce guides to business and specialist terms. They tend to confirm what many suspect: 'that business jargon is often a cover for unbusinesslike confusion'. This is one such list.

WHAT THEY SAY

'Programme'
 'Implement the programme'
 'Expedite'
 'Coordinator'
 'Consultant'
 'Clarification'

'To give someone the picture'
 'Under consideration'
 'Under active consideration'
 'For attention and necessary action please'
 'Let us have a discussion on this matter'
 'To activate'
 'Note and initial'
 'We are making a survey'
 'We will advise you in due course'
 'We are making exhaustive enquiries'

WHAT THEY MEAN

Any job that can't be completed in one telephone call.
 Hire more staff and embroider the job.
 To confound confusion with commotion.
 The fellow who has a desk between two expeditors.
 Any ordinary person more than fifty miles from home.
 To fill in the background with so many details that the foreground goes underground.
 A long, confused and inaccurate statement to a newcomer.
 We've lost the file.
 We're trying to find the file.
 It's up to you to get rid of this to somebody else.
 It's got me sunk. How about you?
 To make carbons and add more names to the memo.
 Let's spread the responsibility for this.
 We need more time to think of an answer.
 If we figure it out, we'll let you know.
 You'll wait a long time for answer to this one.

“A TRIP TO THE FORTUNATE ISLES” by J. L. Goule

Amongst the many and varied pleasures of work on the Redruth Team, one of the highlights must be the routine maintenance visit to the Isles of Scilly.

This sub-tropical paradise of five inhabited islands warmed by the Gulf Stream is situated a mere 28 miles off Land's End, the farthest westerly tip of Cornwall. Once called the “fortunate isles” by a famous poet, they have the mildest climate and some of the most beautiful scenery in Britain. With no rivers or factories on the islands the sea is very translucent, the air is so clear that visitors should beware of sunburn even on dullish days and the spectacular beaches of pure white sand tempt the holidaymaker.

The mild climate with no frosts allows unusual wildlife and plants to thrive, and there are numerous uninhabited islands where almost tame puffins and seals abound.

The trip usually begins with a twenty minute flight aboard the British Airways fast, comfortable, 32-seat Sikorsky SG1 helicopter on the regular scheduled service from Penzance. The team vehicle is left in the heliport car park and gear such as the RF test set, spectrum analyser, spares, etc., is loaded aboard with the other passengers baggage, usually at no extra cost. The precautions against terrorism even apply in friendly Cornwall and hand baggage is no longer permitted in the cabin.

We are soon being ushered aboard the aircraft beneath the deafening racket of the beating rotor blades, but once inside all is quiet and we are preparing for take off. As we gently lift off vertically the picturesque harbours of Penzance and Newlyn are seen with their large fishing fleet and on the opposite side St. Michael's Mount stands out above the sheltered waters of Mount's Bay. Fortunately a camera is allowed and in the summer this is when the shutters start clicking. As we head off south westward the pretty little harbour of Mousehole is seen, then the cliffs gradually get more grandiose as we approach Land's End where the endless Atlantic rollers thunder at the foot of the cliffs sending up gigantic sheets of spume and spray. Then we are heading out to sea, where there seems to be nothingness, and slight apprehension sets in amongst new travellers. But five minutes later the Isles can be seen ahead and before we know it we have landed.

Derek, our taxi driver, is usually to be found drinking tea with the baggage handlers, and we enquire if he is able to take us to the transmitter site. If he has other passengers we end up getting a tour of the island thrown in whilst he keeps us informed of the local gossip.

The BBC's 250-foot tower is the tallest structure on the islands and of necessity can be seen from everywhere. Four UHF television and four VHF radio services are radiated from the site at powers of 50 watt and 35 watt respectively, serving a population of 2,000 locals and, in the summer up to 4,000 visitors.

The islands never get crowded, however, in peak season as accommodation is limited. There is no commercialisation and the visitor is assured of a friendly welcome from the islanders.

By late morning the island's lifeline, the MV *Scillonian III* can be seen cruising past the site and arriving at the Quay to disgorge its load of day trippers and the island's supplies. Everything except fish, daffodils and new potatoes has to be brought to the island by ship on its 2½-hour trip from Penzance. A day trip costs only £15, children quarter-price and is well recommended so long as you have good sea legs and stomach. The ship is of necessity shallow draughted and she rolls like a bathtub if there's anything over a slight swell.

Come lunchtime the 1¼-mile walk round the coastal footpath to Hugh Town is made for a bar lunch in the “Mermaid” or “Bishop and Wolf” named after the famous lighthouses. The lonely Bishop Rock light which is seen from the transmitter site is the last British outpost before America. The pub serves the freshest crab sandwiches you have ever tasted at a very reasonable price and a variety of good hot meals and salads are also available.

For overnight accommodation Mary Cleveland's guesthouse "Poldark" is hard to beat, with a warm welcome and a five-course meal to satisfy the most voracious of appetites. The evening can be spent in congenial company in one of the local pubs, a dance in the islands disco or a pleasant stroll around the old garrison dating back to the Spanish Armada. If it's a Friday you'll be able to watch the Gig race, a traditional feature since the days of wrecks and booty.

The islands have been inhabited since the bronze age 4000 years ago. At one time they were linked to each other by land later flooded by a rise in sea level and many believe this was the legendary lost land of Lyonesse.

Next day, after a breakfast to match the evening meal, we say goodbye to Mary, taking with us anything she needs repairing such as video recorders, watches, etc., to be brought back next visit. "One good turn deserves another" applies here.

Soon Derek is knocking at our door with his "van" to take us to work again. Because there is only 8 miles of road on St. Mary's the few vehicles that are there hardly get used and some of them are the oldest and most rickety of bangers you've ever seen. This applies to our taxi, an 11-seater minibus which creaks, groans and throws you everywhere as it bounces its way down the rough track to our site. Hardly the best after a four-course fried breakfast. Needless to say, no M.o.T. is required for the island's vehicles.

On our return flight in December, January or February, we share the cabin with numerous boxes of early flowers destined for Covent Garden, the Midlands and North. As we fly back over the sea we reflect on another memorable visit and as the mainland looms up we prepare to return once again to the realities of day to day life and look forward to the next visit to those "Fortunate Isles".



Engineers at Skelton in Cumbria have for many years struggled to be heard among the jamming put up from behind the "Iron Curtain". But not on the day of the BBC's 1986 Children in Need Appeal.

Our young engineers have re-formed the BBC (Skeldale & Sandale) Club's branch of Ariel Amateur Radio Group and from their radio shack at our Club in Penrith, under two "special events" Call Signs GB0KID and GB2KID (Kids in Distress), spent from 8 a.m. till about midnight contacting amateurs all over the world, sponsored by friends for contributions to the appeal for the number of contacts made.

Contacts were made all over Europe; some of the more interesting being a contact in Moscow and another from beyond the Arctic Circle in Murmansk.

An interesting contact nearer home was the group which beat our lads in obtaining the call sign BG2 CIN. This group, Radio York, was operating from York Minster and was using the tower of the Minster to support their aerial.

Many other countries in Europe, both east and west (who said we are too far north?), were contacted and each amateur will receive a special QSL card stamped with the Pudsey logo of this year's Appeal.

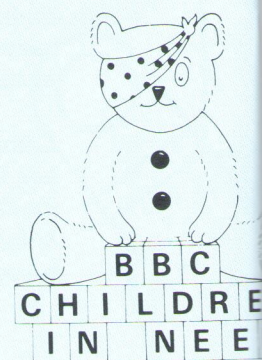
A raffle organised and run by club members, both from the Staff at Skelton, and from the thriving Retired Staff section of the club, enabled by generous gifts and donations from the management at Skelton and from associate members, enabled us to raise the contributions from Penrith to the Appeal by more than £500.

Chris Highton of Radio Cumbria was the anchor man at our studio at Penrith, assisted, again as last year, by retired staff from Skelton.

So many people have contributed to the success of Skelton Club's effort, not least the many members and friends who generously gave their hard-earned cash, that it would be wrong to mention any by name in case a name was missed. The Club Committee wishes to thank everyone who took part or contributed in any way.

Chairman, BBC (Skelton) Club

I have no doubt we will hear what Skelton did in 1987 in the next issue.



ROYAL VISIT TO KRANJI

Royal visits to transmitting stations are rare and possibly only Neil Wilieson and Terry Hoskins can appreciate how Derek Thomas and I felt as a cavalcade of motorcycle outriders and three limousines with standards flying swept up to the drive to Kranji. Preparation on protocol had been administered by a private secretary on an earlier recce visit and had consisted of 'don't worry, you will be all right, just be yourselves'. Possibly that was what we were afraid of.

Fears and trepidation were quickly dispelled, however, when Her Royal Highness, the Princess Royal stepped out of her car, xtended her hand and said 'Hello'. She immediately put both Derek and me at our ease and with the aid of 'The BBC World' map on the wall of my office and her well-chosen questions we explained the role and function of FERS within the network of External Service transmitting stations throughout the world.

In the Control Centre, I introduced the six senior local engineers, George Easaw, Vincent Stephens, Fong Chan Kong, Chua Boon Cheng, Thomas Hui and Thomas Ng. Their stage fright was also overcome by the Princess's easy and friendly manner. She expressed surprise that four of these engineers had a collective service of one hundred and thirty years with the BBC.

Derek Thomas explained the intricacies of the Control Centre and thanks to his Butt Crater days, ably demonstrated how very usable relay feeds could be extracted by remote control from our receivers at Punggol. The advantages of satellite feeds were nevertheless obvious and the Princess complimented us on the quality of the VHF World Service transmissions which are available twenty-four hours a day in Singapore, she thought they were wonderful.

Recalling a course with The Royal Signals during her service career and subsequent visits to Cable & Wireless establishments throughout the world, the Princess had the impression that transmitters consisted of lots of little grey panels with lights and switches on them. She was obviously impressed by the sheer physical size of the valves and components in the final amplifier of a 250kw Sender. A demonstration wave/change to 6MHz intrigued her and she appeared quite fascinated by the 49M tank circuit and output coupling coils.



With apologies to all aerial engineers and rigger-mechanics in UK who may be reading this in December, the tropical sun from a clear blue sky restricted inspection of the aerial field to a brief look from the transmitter hall balcony.

The Princess readily agreed to join off-duty station staff for refreshments in the rest room. Her very friendly and informal manner quickly dispelled the reserve of all staff and she chatted to them quite happily for well over her scheduled visit time. Quotable quips from a witty and friendly Princess will by necessity remain with us but following one pleasant exchange, I can assure you we did not let her drink 'coke' out of the can.

On leaving, the Princess thanked Derek and I for an interesting and informative afternoon and I assured her the honour had been all ours. And indeed it had. Sunday afternoon, 15th November, 1987, will live in the memories of all who were fortunate enough to be at Kranji.

Maurice Williamson



It is interesting to note that despite all the talk about competition, only a few 2S/2W engineers applied for a number of vacant STE posts: in one case there was only one applicant!

Editor.

There are many frustrations a team man must face
On his trips round the stations each day
But the worst of this kind
Is a bog whose waste won't run away.

Now it happened at Torosay not long ago
A builder who just didn't care
When the weather got cold
To leave our waste pipes exposed to the air.

In this way our plumbing was left for some time
Without blocks to keep the pipe true
So the effluent rate
Was not now very great
And so half of it didn't flow through.

Now the waste from the sink ran into the same hole
But when the outlet was bunged up I fear
All the dishwater ran
Straight back into the pan
And took quite some time to disappear.

Now an innocent TE was sat on the throne
And the sink plug was pulled out for fun
When the scalding hot tide
Caught him up the backside
He appeared as if shot from a gun.

The Uninvited Guest

I have been asked if I enjoyed my holiday in the Balearics. I did, very much, but I must tell you of one uninvited guest.

In fact he was an old acquaintance of mine, called Monty. He's been around the Mediterranean for years. I met him first in Egypt in 1952. Funny chap, he'll befriend anybody, given half a chance.

Monty found me this time having a quiet day on an isolated beach about one mile from my apartment. He seemed eager to greet me and, in fact, was a bit of a nuisance, he kept nagging away at me all day.

I'd been surprised and ill-prepared to meet Monty, but I realized later that he wanted me to meet his two Spanish cousins, Loo and Bidy Roca. Monty was persistent that I should know these ladies well. I hadn't realized how their charms could far exceed that of the entire topless brigade. It was almost 'love' at first sight.

Loo was good, fairly passive but always receptive. She was very white and a little on the cool side. She was slightly squat and cried a little from time to time. That was because of her loose nylons but she was OK after I'd put that right.

But that Bidy, she was marvellous. She could be hot or cold, but you could always get her to be just right, warm and comforting. She never asked for anything, she just seemed pleased to serve!

Monty was persistent that I should become attached to his cousins. In fact I spent 3½ days pretty close to them and I even gave up food for a while. My wife was pretty understanding! She introduced me to a new Spanish friend at this time, one called 'Salva-colina'. He kept telling me to send Monty away and have nothing more to do with him. So in the end Salva and I kicked Monty out. Loo and Bidy stayed on because they had been kind and helpful. But once Monty had gone they lost some of their charm. Still nice girls though!

However, keep your eye open for Monty. His surname is Zuma and he's always looking for revenge. If he finds you, put my Spanish friend Salva-colina on his tail and send him packing.

I. A. M. Better

Then the handyman rigger appeared on the scene
And was quite perplexed with what he saw
So he said to the Boss
I am quite at a loss
How to clear this pipe without a thaw.

But he pulled out a section of deep-frozen pipe
Poured hot water in at the hand
After several good thumps
Some dirty great lumps
Exuded from out of the end.

When all of the pipes had been treated this way
It was a really comical sight
For scattered around
Scattered over the ground
Were deep-frozen columns . . . that's right.

Before we got washed we retired to the Inn
For a pint and some much-needed grub
We sat down with a sigh
But we couldn't see why
Everybody had run from the pub.

Now green grows the grass on Torosay Hill
It can be seen if there is no haze
You have now realised
It is well fertilized
And the sheep and deer peacefully graze.

Roy Darymple
TM Fort William



BRAZIL – OCTOBER 1987

In conjunction with assessing the feasibility of a satellite programme feed for External Services I had a brief glimpse of this huge country in South America, visiting Rio de Janeiro, Sao Paulo and Brasilia.

When assessing one's own lot, it is always interesting to view other people's, through local eyes.

It is a vibrant country suffering huge foreign debts, an energy problem and rampant inflation.

The Western banks appear to be giving up on the Brazilian loan repayment and to assist in solving the energy problem, 90% of the cars now sold are alcohol powered from sugar cane. The traffic congestion in Rio meant the atmosphere was akin to a brewery.

The taxi drivers in Rio and Sao Paulo all imagined they were Formula One racing drivers, incredibly skilful, but it was best to look out the side windows rather than the front.

Brasilia, the Capital City since 1970, is not so fast moving as the coastal cities but had zero character, being totally functional.

A lunch-time conversation with an employee of Embratel (BT's equivalent) revealed that he was not satisfied with his 6%/month pay rises, but with inflation at 15-20%/month it was not really surprising. The exchange rate is a visible moving target making project estimates in the local currency difficult.

Despite the social fabric being torn apart with inflation most of the infrastructure systems worked well and hopefully well enough to proceed with the project once "go-ahead" approval has been given by XB.

Alan English
SPE Satellites

The I.E.E. Hertfordshire Area Committee arranges a programme of evening lectures on a variety of electrical engineering subjects throughout the year (with the exception of the summer months). These are held on the first Tuesday of the month at the Hatfield Lodge Hotel.

What has this to do with "Transmission Times"? Nothing really, except that I am on the Committee and we never seem to see anyone from Brooksmans Park at the lectures.

Why not attend a few meetings – if you have any subjects and/or speakers you would like for future sessions, please let me know.

D. W. Grant

OPENING OF ANGUS TEAM BASE

After 17 years of operating from the Angus Transmitter, staff have moved to new custom-built premises. The new base is situated at the existing Band II station known as Forfar, although this is a misnomer, as the site is nearer Dundee and has a Dundee postal address.

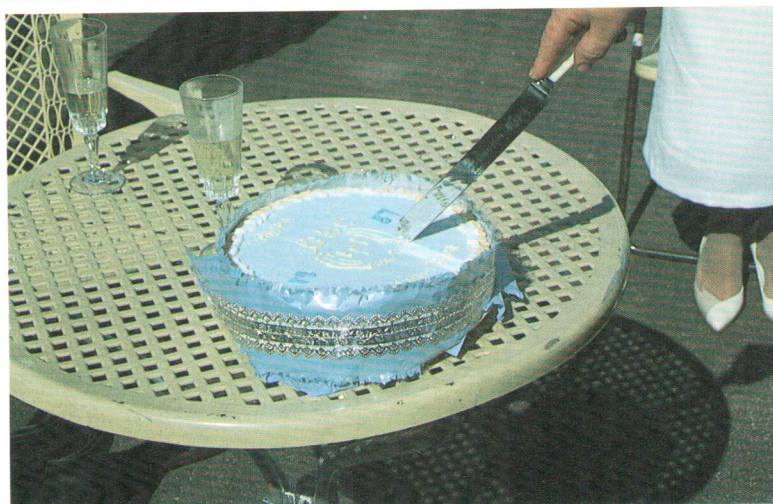
The main reasons for the move were the lack of adequate facilities at the transmitter which was never built as a base, the working environment at Angus was below the standard now achieved at maintenance bases. This coupled with the access problem in winter, the lack of mains water and the unsuitable building land prompted the move rather than build an extension.

The building is far enough away from the mast to prevent damage from falling ice, consequently a pitched roof has been incorporated. The outward appearance is similar to a bungalow. The construction materials, workmanship and furnishings are of a high but cost-effective standard throughout. Hopefully the basic design will become a standard for future bases. Transmitter Building Section handled the contracts.

The premises were officially opened on 27th August by Mr. J. I. Lowrie, TAM Scotland, followed by a buffet lunch.



"Prydes Folly"



Jeannies Junket

There's a tattered old caravan to the south of Bluebell Hill
 Where a tasty ex-TM serves up a real mean meal.
 He cycles up, or is it down, to make an honest quid
 And does he, while apedalling wear a large skid lid?
 He makes an extra bob or two, as the photos surely show
 But if our Dave's come down to this, his salary's too low.
 This side-line may be the cause of many a moan and groan,
 And why we can never get him on the b----y phone.

Mr. Anon. Trad.



TRANSMISSION ENGINEERING MEETING

26th – 30th October 1987

Back Row

Geoff Platts, Gerry Mills, Duncan Whittle, Rae Andrade.

Middle Row

Graham Wards, Ken Worden, Roger Douglas, Geoff Morgan, Martin Ellen, Bryan Holroyd,
 Peter Lamb, David Davis, David Russell, Frank Hearn, Noel Sudbury, Malcolm Green,
 Gordon Harold, Duncan Lion, Ron Renton, Andy Baxter, Jim Gray, Mike Axford, Dick Manton,
 Aubrey Silcock, Carole Jackson, Mike Whyman, Bob Moys, Paul Mitchell.

Front Row

Doug Frostick, David Manning, John Packman, Mike Dilley, Ron Seville, Tim Cook,
 Peter Barry, Mike Ashton, Terry Beswarick, Gordon Lean, Chris Harrison, Nigel Turner,
 Graham Smith, Bob Ashman, Bill Buckley, Jim Sleight, David Grant, Ross Durling.

LETTERS

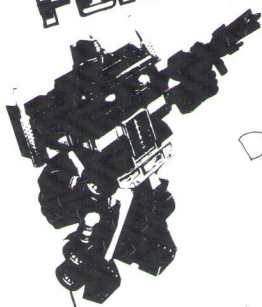
Dear BBC,
 We are four children who live 36
 across the road from the BBC arial. We
 would like to see how the basket
 which goes up and down. We have
 seen it on our way back from
 school. Our names are Karen, Jaime,
 Dean and Daniel. Please let us
 not a boy. Please, please tell us
 see it. Shall we tell our address?
 It will be at the end, by the way
 we will like it.

Love from
 Karen, Jaime, Dean &
 Daniel.

213A Hill Village
 sutton Coldfield
 Four Oaks
 West Midland. B75 5JH.
 021-308-4834

PS.
 Karen
 wrote
 this
 letter.

THE TRANS
 FURMERS™



Dear Mr burhop
 Thankyou for showing us
 around the mast We
 enjoyed it very much even
 uncle John did thank the
 rest of the rest of the
 team love
 Dean x x x x x
 x x x

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PROJECT MANAGEMENT AT AN ARM'S LENGTH –

AN 'IMAGINATIVE' IDEA FOR THE FUTURE?

During the last two years, assistance has been provided to the EBU Technical Centre, in Brussels, to prepare a Specification and contractual documents to procure a precision DBS measuring station for the EBU at Jurbise, in Belgium.

The work has proceeded slowly, but surely, in what can only be described as a truly 'collaborative and international' atmosphere. The work is co-ordinated by an Engineer at the Technical Centre, in Brussels, who happens to be on a secondment from Yugoslavia, the Chairman of the Group is from West Germany and assistance has been provided by a Dutchman from the European Space Agency, an Indo-Chinese-French Engineer from France, a Belgian Engineer from Jurbise and me(!). Meetings are arranged on an ad-hoc basis and have been held in a variety of locations throughout Europe and are usually conducted in English (or French, German, Dutch . . .). It is hoped that, shortly after the first DBS Satellite is launched (scheduled for late October 1987), a Contract will be placed with the selected company (Tenders were invited from an International list of over 30). The station should be completed in late 1988.

The moral of the story is, that anyone who believes Project Management in the South Midlands, remote from London, is going to be really difficult, will have a tough time making their arguments stick. . . .

Jim Sleight

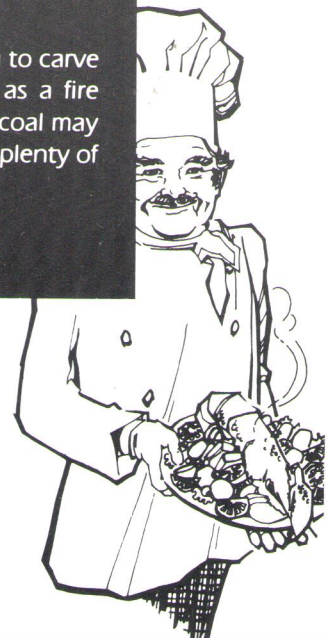
A Recipe for Success

In accordance with local custom and practice a grand barbecue was held by Radio Lesotho staff (though it seemed that most of Lesotho attended) to celebrate the first day of service of a new HF transmitter for BBC programmes. The day chosen was Sunday, September 27th – which conveniently coincided with the 'Schedule Change'.

Under the terms of a new agreement between the Lesotho government and the BBC, a total of two 100kW 'Continental' H.F. transmitters are now operated by Radio Lesotho, broadcasting BBC programmes delivered to them by a newly-established satellite circuit. The output provides coverage, using two dedicated T.C.I antennas, to Southern Africa.

Nothing was going to spoil this great event. Certainly not the pouring rain or having to carve up the meat on the nearest door step. Even the beer turned out quite effective as a fire extinguishant. The delicate flavours produced by burning an old door instead of charcoal may well be covered sometime on Floyd on Africa! With determination, improvisation and plenty of Amstel – a memorable day.

David Manning



HOT NEWS

Dawn Rodwell (Sec. to G.M.Tx. Ops.) got engaged to John Gaine on 21st September. They will be getting married in September 1988.

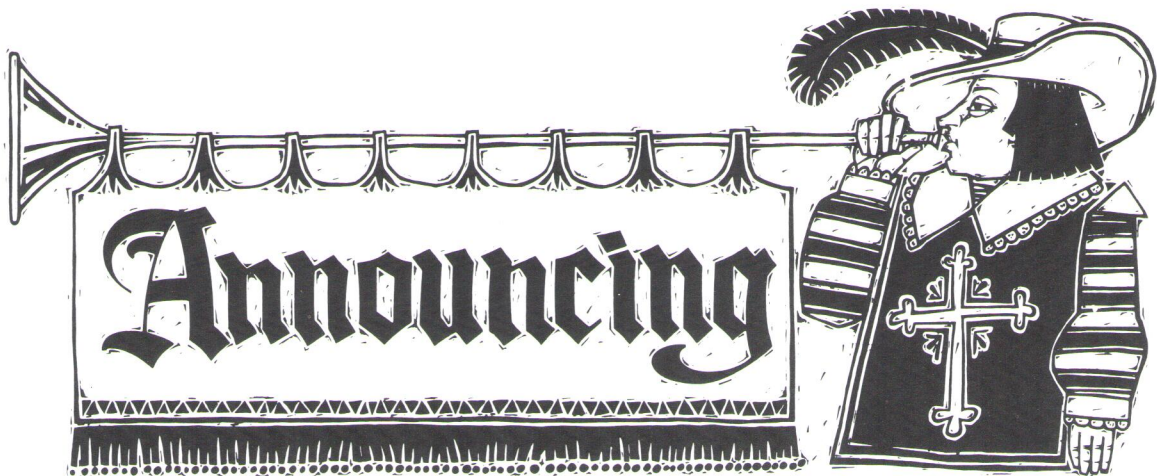
Simon Walters (Tx.Ops.) left Henry Wood House on 2nd October, 1987 to work as Acting T.M.(O) Kirk O'Shotts. He left in true style, having had several leaving parties. No doubt he is still having the 'arrival' parties.

Mandy Burg now replaces Gill as Secretary to H.E.Tx.S.S., having worked in Transmitter Operations for just over one year.

Bhavna Raja (Tx.S.S.) gave birth to a baby girl, Bijah, at the end of April 1987 and will not now be returning to work. We send our best wishes for the future to her, her husband and the baby.

Bob Bates (Tx.S.S.) married Yvonne Burns on 17th October, 1987, at Chelsea Parish Church of St. Luke. The reception for 100 was at the London Corinthian Sailing Club. Bob didn't have a stag night - he had a week!

Gill Cope (Tx.S.S.) left the BBC in June 1987 to work for the ill-fated London *Daily News*. She is now working for the Director of Industrial Relations, Mirror Group Newspapers.



For those of us in the know, it is impossible to lose a love, a life, a hand at cards, a coup or a Bill without advertising the fact in "The Times". As a loser of some renown, I now wish to redress the balance and announce the birth of a grandson. This child may be born on the wrong astral plane, may not be the best possible vintage, may not even be so bright as to choose the right parents but will, however, be advantaged as very few have the good fortune to be, in its antecedents, well one of them anyway. In all humility, I intend to throw myself into this role as one inspired. The perm is booked, blue-rinsed, be-shawled and beleaguered, feverishly counting once more the little knitted things for which the storage charge is greater than my subscription to *Playgirl* magazine, no sacrifice too great, no gesture noble enough. I look no more to pectorals and teeth, it is sagacity and worth which totter through my dreams. This most rewarding phase of my life demands as never before a suitable partner with whom to stand in defence of those half-forgotten, long-forsaken virtues with which everything within me cries out to be identified. I look to find a mate eager as I am for this mammoth task, booted and spurred, strong in adversity and with a bit of dosh. Examine your heart, search your soul; if in honesty you find yourself ready and fitted for the task ahead, do write to Box No. 103 and leave the name and address of both your bank and insurance broker. No more those impulsive leaps in the dark which seem inevitably to end in the local chippy.



The World of Communications Projects

Diverse – this is probably a good word to characterise the work of Communications Projects Group. Our projects range from data transmission systems to satellite earth stations, from phone-in systems to transmitter interface equipment and from television OB link vehicles to local radio base stations. In addition, we deal with the provision of circuits from British Telecom and Mercury.

It is interesting work and one of its appeals is that we work with a wide range of people in all sorts of different departments around the Corporation.

At the moment we are located in three different buildings, which makes it rather difficult for everyone to find out what is going on in the Group. So here is a brief sample of the people and their work. In Duchess Street there is Colin Shephard helping the Output Directorates to provide all sorts of telephone facilities. Garry Mainwaring dealing with the distribution of news agency feeds to many BBC buildings, Ray Mutch planning the new PABX at Pebble Mill and Simon Brace keeping Network Routings up to date. In Henry Wood House there is Bob Hammond looking after the new control system at Daventry and Phil I'Anson doing the same for Hong Kong. In Brookmans Park, of course, we all work for Ken Jones! There is Keith Hayler helping to introduce NICAM to the radio distribution network, Mike Hunt fixing faulty test equipment, John Levett providing radio telephone equipment for news teams, Karen Stead making drawings of leaky feeders for the Dartford Tunnel, Peter Mason keeping the supplies rolling in and Peter Tingey who is . . . well I better not tell you what he is up to.

I have only mentioned a small random selection of people in the Group and, of course, those that I have mentioned are all doing much more besides this work. However, I hope that I have given you an idea of the sort of thing we do.

Martin Ellen

Reportophone

The Reportophone, which is made in Holland, is a device which enables reporters and journalists to transmit commentary over direct exchange lines.

The device plugs into a standard BT line jack unit and can accept inputs from a microphone and a tape-recorder (Uher 4000 normally). It is intended as a replacement for the old COUBE (Commentator Operated Outside Broadcast Equipment).

The Reportophone was BAPT approved on 4th December, 1986 and can be purchased from Dyer Audio Systems. For further information, please contact Michael McCormick on LBH 4278.



