

BUSH TELEGRAPH

SEPTEMBER 1981



TELEGRAPH

the magazine of **R&EL** wood lane



Cover

By
David Margolis

Editorial Board

David Green
Richard Hammond
Geoff Holder
Ann Kirby
Ted Morrison
Peter Walters



Editorial

Many people find it comforting to feel that their place on Earth, though a fleeting one in the physical sense is part of some permanent and continuing scheme. One way in which this feeling of permanence and continuity manifests itself is the interest shown in genealogy, which was commented upon in a recent editorial. Another way is in the naming of our streets to reflect some particular feature of the land, the function of the street, its destination, its owner or some notable event associated with the owner or the particular site. For an example of the latter one need look no further than the White City Estate, the street names of which are related to the sites of different countries pavilions erected for the 1907 Great Exhibition.

With this in mind one might wonder about the origin of the names that have recently appeared on the roads just beyond our gates. It might be imagined that these names were chosen in some way to reflect the long-standing presence of BREL on this site. Relay and Ariel (a mis-spelling of Aerial) might have been chosen for their electrical connections, while Silver might refer to the prominence of the silver nitrate solution tank that is easily visible next to the gatehouse. Then again, an erudite road-namer might have been thinking of us and of some passages* from Shakespeares' "Tempest" when he decided on the term Ariel Way.

* How many goodly creatures are there here!
How beautious mankind is! O brave new world
That has such people in't.

and

Flout 'em and scout 'em; and scout 'em and flout 'em;

Personnel News

STARTERS: Welcome to

Joanne Sampson who joins us as a Technical Assistant in the Polymer Materials Department.

Gregory Hawkes who joins us as a Technical Assistant in the Polymer Processes Department.

Anne Carvalho who joins us as a Secretary in the Patents and Licensing Department.

Martin Townshend who joins us as a Laboratory Assistant in the Polymer Processes Department.

Lincoln Tingle who joins us as a Technical Assistant in the Polymer Materials Department.

Steven Smithers who joins us as a Craft Apprentice.

Martin Littleboy who joins us as a Technician Apprentice.

Christopher Melbourne who joins us as a Section Leader, Optical Systems.

Terence Lockyer who joins us as a Senior Technical Officer, Optical Systems.

Julie Milton who joins us as a Junior/Clerk Typist in the Engineering Development Department.

Alan Eyres who joins us as a Technical Officer in the Engineering Applications Department.

Ghulan Shah who joins us as a Technical Officer in the Polymer Processes Department.

LEAVERS Farewell to:-

Helen Royal of the Chemistry Department who leaves after 2 years service to take up a course of full-time Higher Education.

Anil Mawani of Engineering Development who leaves after 2½ years service to emigrate to Canada.

Malcolm Benn of Optical Communications who leaves after 2½ years service with the Company.

RETIREMENTS

Best wishes for a long and happy retirement go to Tom McDermott of Works Engineering who retires after 14½ years with the Company.

LONG SERVICE AWARDS

Congratulations on achieving 20 years service with the Company go to:-

Tony Powell,	Physics Department	28th August
Mike Squelch	Polymer Processes	28th August
Norman Fairey	Conform Project	4th September
Mike Hagger	Polymer Materials	11th September

Next Publication Date

It is hoped to publish three more editions of the BT before the end of the year. Details are as follows:-

<u>Publication Date</u>	<u>Date for Contributions</u>
14th October	30th September
13th November	30th October
16th December (Christmas issue)	30th November

Early receipt of contributions, in particular for the Christmas Issue will be greatly appreciated.

Letters to the Editors

Dear Friends and Colleagues,

I joined BICC in 1964 and was seconded to a company called British Dielectric Research which occupied the second floor of McFadzean. On completing my degree at Brunel, I returned to the Physics Department which was by then located on the second floor. In 1976 I moved down one floor to join the newly formed Transmission & Energy Department. Despite my attempts to install myself firstly on the McFadzean roof with solar panels and then on the HV roof in a Portastor enclosure, in 1979 I moved again to the ground floor to join the Product Engineering Department. In retrospect, it seems only logical that my next step was to move out of the front door!

Now that I have taken up alternative employment I would like to take this opportunity to thank all the people at Wood Lane and the divisions who have helped and assisted me over the years in the various projects which I have undertaken. I am also extremely grateful to all those who contributed towards my leaving present which, being an executive briefcase, will follow me around in my new position and remind me of the very many pleasant years I have spent with BICC. I hope to visit BICC on occasion to look up old friends but until then, I remain,

Yours sincerely,

Russell Pride

REPLY TO Messrs. Hagger & Morrison

Dear Sirs,

Our letter was to take issue with the Editorial Board who described the Genealogy Section as "long ranging, backward looking". Not being genealogists we naturally refer to "about 900 years" for Englishmen (before the unification of the Anglo Saxon kingdom there were no Englishmen!)

However correctly rebuked we stand in relation to your first paragraph, concerning the scope of genealogy, we can take issue with the pre-scientific attitude expressed in your second.

The connection between the royal line of Judah and the Anglo-Saxon races referred to in the Anglo-Saxon Chronicles is pure fantasy fostered by the missionary "saints" who converted the heathen to Christianity to give the heathen a sense of belonging.

Probably history as narrated in the Bible can be allowed to go back to Abraham of Ur, before that it is fable, hearsay and mythological rot.

If Messrs. Hagger & Morrison truly believe we are descended from Adam and Eve and that Creation took only 5 days, then we suggest their true vocation would be best found as pastors in various anti-Darwinian anti-evolutionist fundamentalist sects prevalent in the USA and not in BREL whose function is SCIENTIFIC research!

The wholesale swallowing of a cosmogony suitable for the limited capability of the brains of a tribe of wandering shepherds (with no denigration to them - they could comprehend no better) who were undoubtably flat earthists with a geocentric universe suggests that they (Hagger & Morrison) should take themselves from hence at once.

Yours,

Goodchild & Millward

Dear Sir,

Whilst agreeing with your correspondents Messrs. Hagger and Morrison (BT, July 1981) that the Genealogy Section is not insular or myopic, I would point out that Holy Writ does not necessarily suggest that only five days occurred between the creation of Heaven and Earth, and the forming of man. Genesis 1:1,2 could well be translated:

"In the beginning God created the heaven and the earth, but the earth became without form and void;"

contd....

The Hebrew words translated without form and void, are "Tohu va bohu" and occur again in Isaiah 34:11 in a context dealing with confusion and emptiness. Also, Isaiah 45:18 states that:

"He (the Lord) created it not without form (tohu)"

therefore it must have become so.

It would appear that after the primal operation, there was an overthrow, out of which by Divine creative power the present order was made.

There is plenty of time for the geological periods between verses 1 and 2 of Genesis chapter one.

In conclusion, I wish all genealogists every good fortune in their researches, in the sure knowledge that if they are successful, they will find that we are all descended from either Shem, Ham or Jopheth, the three sons of Noah.

Yours sincerely,

John Porter.

Correspondence on the above topic will be concluded in the next issue of the BT. More complete articles on the same theme will, however, still be accepted thereafter.

Finally, a message from the Typing Pool.

THANK YOU

For those of you who have yet to see me I AM BACK (say no more!!) and would like to say yet again THANKYOU for all your getwell wishes, visits, telephone calls and general concern over me while I was away.

I've been told I am now as healthy as any other girl walking the street, that I will leave up to you to decide. Anyway I am now fighting fit and hope to see you all sometime in the future.

Love

Lesley

xxx

OUR ADDRESS

For those of you who may be confused by the plethora of road signs that have appeared in the vicinity of BREL recently, our new address is as follows:-

38, Ariel Way,
Wood Lane,
London W12 7DX

BRIGHT OUTLOOK ?

"The sun shines on BICC" according to Kenneth Fleet, City Editor of the Sunday Express. In an article published on the 23rd August he briefly compared BICC with ICI pointing out where, in his opinion, ICI had got it wrong and how Sir Raymond Pennock having transferred from ICI to BICC was taking us along a more profitable and secure route. Towards the end of his article he sums up the future as follows,

"You may take it from me. BICC is benefiting from good thinking at the top; its finances are in excellent shape; and a geographical spread over what was once the British Empire in both cables and in construction (Balfour Beatty) will smooth out many a wrinkle in the group profit and loss account.

The excitement is in the next stage. BICC is developing fast as a supplier of precision components to the electronics industry and it has made its move into optical fibres, the wonder material that does in cables much of what copper does and does it much better, with Corning Glass, the American leader in the field. BICC is preparing to manufacture them at Shotton.

Throw in the prospect of a major British Rail electrification programme which could hardly fail to bring big orders, and who knows, BICC shares may soon be worth more than ICI's. There's barely 10p in it now."

Perhaps it isn't all gloom after all!!

The History of Electric Wires and Cables

PART 37. SUBMARINE POWER CABLES (CONTINUED)

By R.M. Black

The Cross-Channel Power Link

It was during the early 1950s that the possibility of inter-connecting the British and French electricity grid systems came under active consideration with the object of achieving the optimum use of these energy sources. Several years before the French system had already been interconnected with those of the neighbouring countries as the crossing of land frontiers presented no technical difficulties save that of synchronizing the phases of the interconnected systems. To inter-connect with the British system, however, in the absence of a Channel tunnel, posed the problem of laying submarine power cables beneath a particularly busy and intemperate stretch of water.

In order to consider the problem properly, a Joint Committee was set up involving the two national authorities and formal meetings were held alternating between Paris and London. As a result of these meetings, a joint report was presented to the Authorities in May, 1952, and programmes of investigations and the practical development of cables, joints and accessories were subsequently undertaken in both France and England.

It was originally hoped that any power cable between France and England might be accommodated in a channel tunnel, but although such a project had been under consideration since 1800, with definite proposals emerging in 1856, nothing had come to pass save a short length on the French side and three shafts sunk near Dover on the English.

The French and British Grid Systems

On the British grid system, about 99.5% of the energy was supplied by thermal stations, whereas, in France, in a year of average rainfall, about 50% of the energy was generated by hydroelectric stations. At the time that these factors were under consideration, it was claimed that this resulted in very significant differences in the costs of production and in plant availabilities in the two systems at various times of the day and year. In France the variations between the Summer and Winter demands were smaller and the annual load factor of demand higher than on the British system. Also, owing to the different national habits and climatic conditions in the two countries their individual maximum demands occurred at different times of the day, resulting in an available diversity of over 400 MW. This factor was considered sufficient to justify an investigation into the practicality of interconnecting the two systems.

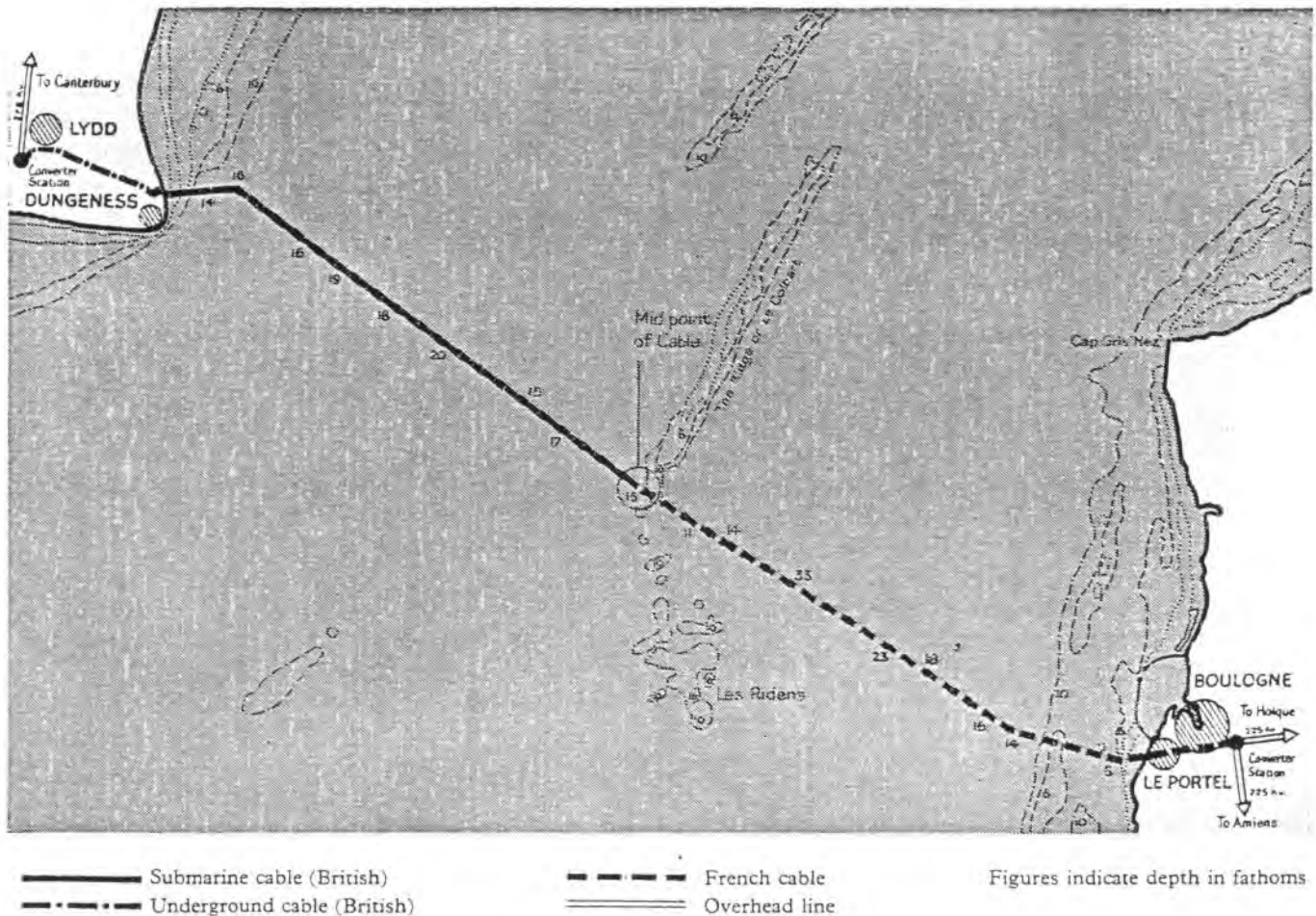
In the event, after much consideration, it was decided that a 200 kV d.c. system had distinct advantages over the a.c. alternatives, and that Great Britain and France should each supply and lay half of the cables required for the submarine link.

The Cross-Channel Link

The link, in the form of two parallel cables each 38 miles in length, one operating at 100 kV positive to earth and the other at 100 kV negative. The route chosen lay from Lydd in Kent to Boulogne in France, the convertor station at Lydd being connected to a link house at Dungeness, four miles away, by underground cables.

The decision that the cables should be manufactured and laid by cable makers from both France and England led to two possible approaches; first, that each country should be responsible for one cable across the channel or, that in order to simplify the laying procedure, in which it was imperative that the two cables be kept in parallel and at a distance of one metre in order to minimize the magnetic effect of the link on the navigational systems and compasses of ships passing through the Straits of Dover, each country would lay two cables to some centre point in the channel where they would be jointed, presumably by a multi-national team of jointers.

This latter option was, in fact, adopted with some success. For Great Britain the cables were made and laid by A.E.I. and B.I.C.C., while for France rather more companies were involved:- Cable de Lyon, Jeumont Forges et Ateliers de Constructions Electrique de Jeumont, Ste. Alsacienne de Constructions Mecaniques and Trefileries et Laminoirs du Havre.



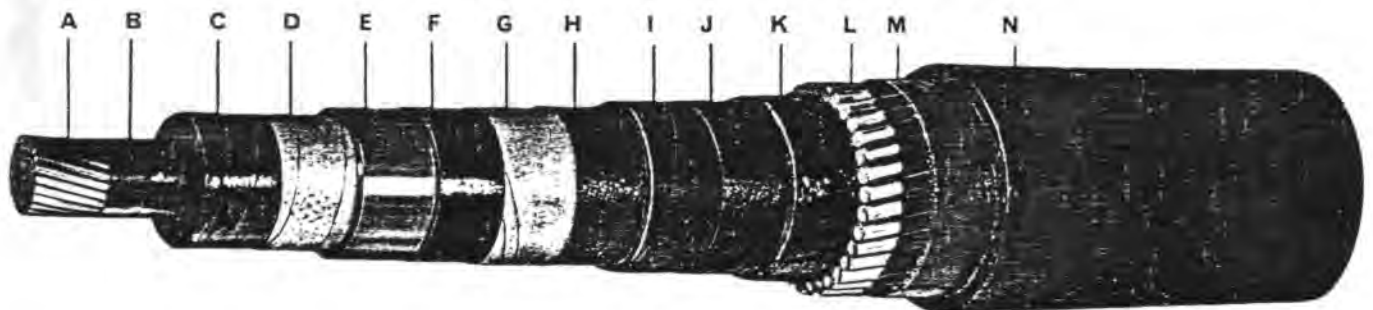
In addition to being a busy shipping lane, the English Channel is subject to fast flowing tides whilst being liable to stormy weather. In addition, a number of telegraph cables pass through the area in which the cross-Channel link was to be laid. These were the Fayal to Borkum cables of 1882, 1900 and 1926 as well as the Vigo to Borkum cable of 1896.

These hazards can result in cable failures as has been shown by a study of the Post Office records on an early group of telegraph cables, laid in 1897, 1910 and 1912 between Dover and Cap Gris Nez. These showed that during a total life of 100 cable years, 110 faults occurred which could be ascribed as follows:-

Chafing on bottom	13
Faulty jointing	11
Ship's anchors, trawls etc.	55
Deterioration of cable	25
not known	6

The Cable

It was decided to use a conventional design of paper insulated cable with servings and armouring suitable for the submarine application. The design was as follows:- the stranded 0.525 sq.in. copper conductor was surrounded with a metallized paper tape conductor screen and insulated with 0.38 in radial of pre-impregnated paper tape dielectric. This was in turn surrounded by an outer dielectric screen of metallized paper tape or copper tape.



A Copper conductor	E Lead alloy sheath	I Vulcanized rubber tapes for anti-corrosion protection	L Compounded galvanized steel armour wires
B Conductor screen	F Bedding tape	J Cotton tape	M Cotton tape
C Impregnated paper dielectric	G Galvanized steel twist-compensating tapes	K Jute yarn bedding	N Jute yarn serving
D Dielectric screen	H Cotton tapes		

The core was then sheathed with a lead alloy to which a bedding tape containing an interwoven tinned copper wire was applied to ensure electrical continuity with the galvanized steel twist compensating tapes which were next applied. A further layer of cotton tapes followed by a layer of vulcanized rubber anti-corrosion tapes and a further cotton tape. A layer of jute bedding prepared the way for the 34 compounded galvanized steel armour wires. The cable was completed by covering the armouring with a layer of cotton tape followed by a stout jute yarn serving. Before the cables were laid, however, a number of sea trials were carried out by both the British and the French

The French Trials (November - December, 1959)

The sea trials carried out by the French were designed primarily to confirm the feasibility of a simultaneous repair of a fault in the two cables. This necessitated the development of a technique for mooring the cable ship 'Ampere' which was to be used by the French for their laying operations, fore and aft and to develop a method for simultaneously jointing two power cables by means of flexible joints. In a subsequent account of the operation details were given of the various trials carried out off the roads of La Ciotat:-

1. Laying at a mean depth of 27 m two test cables of the design agreed for the British-French link.
2. Locating of four anchor-buoys to which the cable ship was secured during the jointing operation.
3. Grappling of the cables with the aid of a launch.
4. Fastening the cables by divers.
5. Cutting the cables by shaped charges placed on opposite sides of the cables by divers.
6. Raising, sealing and immersion of the four cables.
7. Raising, splicing and relaying one of the sections.

The British Trials

September - October, 1958

Very similar trials were carried out on the behalf of the C.E.G.B. during the autumn of 1958. It was concluded as a result that:-

1. The trials have shown that the two cables can be laid simultaneously and so that they lie closely together on the sea bed.
2. The cable design should be modified to incorporate anti-twist tapes to minimize the danger of kinking.
3. The two single core cables system has limitations which must be anticipated in respect to:-
 - (a) Cable spacing in the vicinity of a repair, which cannot be closely controlled, and
 - (b) Hazards which exist when effecting repairs owing to the practical difficulties in re-laying the two cables simultaneously after repair.
4. The trials have shown that the principle of using a converted collier for the initial installation and subsequent repair operations is sound, but further modifications to the equipment of the C.E.G.B. collier, Dame Caroline Haslett, will be necessary.

The Laying of the French Cables

The French cables were laid on Tuesday, 23rd May, 1961 at a period of ebb tide. The cable ship 'Ampere' had arrived at Calais on Monday the 15th May, when the two cable lengths, each 25.5 km were coiled in the two forward tanks and all the electrical tests specified before laying, completed. The cable was transported from the Calais factory of Cable de Lyon by way of an overhead gantry. On Friday, 19th May, the

'Ampere' berthed at Boulogne to await favourable weather conditions for the laying operation. It was not until the following Tuesday morning that she was able to proceed to the off-shore mooring position.

During the laying operation, the 'Ampere' was assisted by a second small cable ship the 'd'Arsonvel' which belonged to the Submarine Cable Division of the French Post Office. Her assistance was of considerable help particularly during the landing of the shore ends when she could be left to recover the flotation balloons and her auxilliary launches while the 'Ampere' left for the main laying operation. This she did as soon as the shore end cables were immersed, thus saving valuable time and enabling her to complete the cable laying and lay the end marker buoy before nightfall. Further assistance, should the need arise, was offered by the French Naval tug the 'Equerdreuville'.

On the 23rd May, the weather conditions were very good, there being no wind and a dead calm sea. The shore end was taken off and laid in previously prepared 5 m wide channel cleared in the rocky zone which extended for 400 m just south of the Fort de l'Heurt. The main lengths of the cable were then laid at a mean speed of 3 knots, the tension in each of the two cables being indicated by the dynamometers as being approximately one ton. As the centre point was approached, the last 100 m of the two cables were bound tightly together so that they could subsequently be raised "under optimum conditions".

The Laying of the British Cables

The 'Dame Caroline Haslett' left Woolwich Cable Works on the 24th May, and proceeded to Dover Harbour, her operational base. After the necessary preparatory work had been carried out, she put to sea to carry out test runs to the mooring position off shore, while at the same time a shore gang was making the final preparations to pull the cables in-shore. The weather, so perfect for the French laying operation, had yet to be reckoned with. Force four winds and adverse tides not only delayed the start of the operation but also added to its difficulty.

On Wednesday 7th June, an attempt was made to land the cables from a mooring position some 1,400 yards off shore. Approximately 360 yards of the two cables had been paid out of the ship and supported on the sea by means of rubberized canvas air cushions, the ends of the cables being attached to a steel hawser pulled by a winch anchored on the beach. To quote from an official account:-

"The operation was proceeding normally, the winch pulling in cable at about 40 ft/min when suddenly an air cushion broke free of the cable followed quickly by two more. A chain reaction followed causing other cushions to break under the shear weight being placed upon them. Ultimately the cable section sank and air cushions that were not torn free of their lashing were dragged under. It was decided to cut the cable at the stern skid rather than to risk damage to it during hauling in operations."

The cut cable ends were eventually hauled in shore by means of the winch. On Friday, 9th June, the operation of landing the shore ends was repeated, this time satisfactorily, and they were anchored on the beach at Dungeness at the predetermined position.

Following the successful landing of the shore ends, the 'Dame Caroline Haslett' slipped her mooring and proceeded to steam at an average of 3.6 knots to the mid-channel point laying the cables as she went. This operation, which took just over three and a half hours to complete was carried out in sunny weather with a wind force 2 freshening to force 3 to 4 during the later stage of the work.

The Mid-Channel Jointing Operation

The joints between the British and French cables were made as planned during the first neap tide period following the laying of the British cables. The 'Ampere' sailed from Boulogne-sur-Mer on Monday 19th June to commence the preliminary operations. These were again complicated by the fact that the ends of the cables had been marked with marker buoys, one for the French ends and two for the British, and during a storm in the previous week the French buoy and one of the British had been lost. However, the cable ends were located, and on the 20th June the British ends were raised and about 800 metres cut off, the ends of the cable to be reimmersed being capped. A further 100 m of the British cables was raised and relaid in parallel formation and in the immediate vicinity of the French cables.

On Wednesday, 21st June, the 'Ampere' arrived at the jointing position at 11.00 hours accompanied by the cable ship 'Emile Baudot', and with the assistance of the tug 'Equerdreuville' completed the previously rehearsed mooring operation by 13.00 hours. The raising of the cable ends then began and four hours later the ends were positioned on the deck of the 'Ampere' and prepared for jointing. Jointing commenced at 20.20 hours and was complete some 18 hours later when the joints were submerged. On the 23rd June, an inspection by frogmen confirmed that the loops were properly laid on a flat sandy bed at a depth of about 30 m and that no radius of curvature of the cable was less than 4 to 5 metres.

The cables during laying and after jointing were subjected to a series of electrical tests culminating in acceptance tests on the installation of 200 kV D.C. for one hour at both polarities.

(to be continued)

PARACHUTING

An attempt is being made to organise a party of 10 people to attend a parachuting training course. Brief details are as follows:-

Cost: £43 exclusive of (ground) transport.
Location: An airfield near Maidstone, Kent.
Duration: 1 day (weekdays), 2 days (weekends)

Anyone interested is invited to contact Ian Fordham or Peter Walters (extn. 340)

HOT AIR

FIFTH HOT AIR INTERNATIONAL BALLOON CHAMPIONSHIPS

BATTLE CREEK - MICHIGAN - U.S.A.

From Your Foreign News Correspondent

(This news was obviously flown in by "Balloon Mail"; hence the late date of publication.)

Friday, 19th June, 1981 found me in Battle Creek, a small township on the main highway about half way between Detroit and Chicago. It was the start of a glorious week of ballooning and it started in typical American style with a barbecue just to get everyone acquainted and everyone included the pilots, their crew, the operations staff (I was one of these) and a host of locals who were the hosts to each visiting balloon.

Yes, every balloon was allocated an American host family, and a co-ordinator who was also a ground navigator i.e. someone who knew the countryside like the back of his hand. Not a balloon was lost or delayed all week. In all there were 82 competing balloons from 24 countries. But that wasn't all there was another compliment of balloons, just for entertaining the public, making a total of over 100. Amongst the latter was the Kellogg balloon with Tiger Tim in charge. This was 'Cornflake' country and the events were to start from the Kellogg Airfield, nearby. Among the highlights of the entertainment during the week were a demonstration of a smoke balloon and, a double wedding event that took place in balloon baskets, flying on tethers. The champagne was excellent 'and bountiful'.

If any one wants to know what a smoke balloon is, it is about the size of Gabrielle and is made of some porous cloth. This is sealed virtually by lighting a smoky fire underneath (it is held over a flame, so that the hot air fills it and the carbon deposits seal it. When it is buoyant, the pilot straps himself underneath and wears a parachute - and up he goes! I would say that at about 3000 feet it began to lose bouyancy and the pilot disengaged and parachuted down, where upon the smoke balloon, relieved of his weight, turned upside down, spilled the rest of the hot air, and 'Roman Canded'.

Saturday was devoted to the traditional 'Monster' briefing session that is always done to ensure rules and procedures are understood.

On Sunday the contest tasks started in earnest with a 5.30 a.m. task briefing and continued throughout the week with a total of eight tasks flown, some morning, some late afternoon. There were only two cancellations would you believe one was because of a complete absence of wind, the other was for a typhoon warning (honest)!

For those interested the tasks were mainly fly-ins, with 2 fly-ons, a pilot declared goal and a judge declared goal. I suspect the fly-ins were arranged for the benefit of the spectators. They came in their thousands, the record was 350,000, even at the early morning events 50,000 was not unknown. Can you imagine a British crowd turning out at 5.30 a.m., the Americans did!

The winner was Bruce Comstuck, an American who is actually Cameron Balloon's American agent. Don Cameron was obviously delighted with a balloon of his manufacture in first place and 2nd and 3rd and 4th. The United Kingdom took second place with our own flying doctor, David Bareford. Third was from Sweden and someone familiar to Gabrielle and her cohorts, Chris Kirby, who came tenth. Other British places behind David and Chris were 16th, Ian Bridge: 21st, Dick Worth: 33rd, Crispin Williams: 37th, Tom Donnelly: 38th, Roisin Batchelor: 63rd, John Coleman: 65th, Ian Jacobs.

When it was all over the Americans again proved themselves excellent hosts with mass picnics, lake skiing, zoo visits and whatever. One kind American pilot loaned me his balloon and I got in a glorious 1 hour 30 minutes before reluctantly landing and returning it to him.

All for now, Safe Landings! The next "Balloon Mail" will be flown in from the British National Hot Air Balloon Championships at Stamford Hall, Rugby.

D. A. Moore

Competition Result

Bridge Competition Result

Firstly please accept our apologies for trying to confuse you by omitting one of the dots from the answer to question 23. While it is true that most of the 16 solutions arrived after we published the last memory jogger on the 14th August, advising of the error, this did place the pensioner's, who took the trouble to enter the competition and would not normally see the jogger, at a disadvantage. In fairness we have therefore judged the competition on the answers given to the other 25 questions this resulted in 13 solutions that were completely corrected.

The lucky winner, drawn from a well used tea cup, was Ian Fordham who receives the 1st prize of £5. The second prize of £2 goes to Harold Boulton. Congratulations to you both, to the others better luck next time. The answers are given below.

Cornwall	Wadebridge	Kent	Tonbridge
Cornwall	Newbridge	Kent	Tunbridge Wells
Cambridgeshire	Cambridge	Lancashire	Bamber Bridge
Cumbria	Newby Bridge	London	Redbridge
Dyfed	Devils Bridge	North Yorkshire	Boroughbridge
East Sussex	Robertsbridge	Nottinghamshire	East Bridgeford
Glamorgan	Bridgend	Nottinghamshire	West Bridgeford
Greater Manchester	Astley Bridge	Somerset	Bridgwater
Gwynedd	Menai Bridge	Somerset	Bridgetown
Hampshire	Stockbridge	Staffordshire	Churchbridge
Hampshire	Fordingbridge	Suffolk	Woodbridge
Highland	Spean Bridge	Tayside	Bridge of Earn
Humberside	Stamford Bridge	Worcestershire	Stourbridge

Competition

If you travel by tube you will no doubt find this competition easy because all the answers to the clues below are names of Underground stations in London.

For those of you who are unfamiliar with the Underground system there's no excuse because you'll find the answers on any Underground map!

Your completed list should be sent to Ann Kirby by Friday, 26th September. A prize of £3 will be awarded to the winner. In the event of a tie the winner will be drawn from a hat.

Happy travelling!

1. Heavenly resident?
 2. The monarch's not very happy.
 3. Rooster encourages.
 4. Adjacent to the river.
 5. Common people are not tried here.
 6. Despite rumours it's not falling down.
 7. The 1,760th yard.
 8. Squeezed out of a circle.
 9. Hardly a colourful place of worship.
 10. She was not amused.
 11. Must be where Charles hid.
 12. The Vicar's very inexperienced.
 13. Chalet.
 14. Dirty Monks.
 15. No good if one's white and the other's in the air.
.....
 16. Weather peculiar to White Hart Lane.
 17. Beat forger.
 18. What a milliner did to hid a face.
 19. Nobleman's land in New England.
 20. Cushioning weight.
 21. Miner's timber.
 22. London after snowstorm.
 23. Upland farm implement.
 24. Laurie's alcohol-free drink.
 25. Fellow after distant circle.
-

Dysphagian Diary

(the occasional column for all seasons)

We are all familiar with the leaflets and brochures of overseas companies in which the English appears to have been written by a Japanese computer with an 'O' Level in Spanish grammar, but we are now delighted to report that Britain is catching up with the rest of the world.

M.E. Supplies (Electronics) Limited, of Leicester, through their Sales Representative, Brian Harkins (sounds a solid Englishman), ensure the potential customer that, "We do in fact inordinate self esteem with the knowledge of catering for your necessities".

With sales patter like that he should be selling motor bikes to Tokyo!

* * * * *

Of course, even if you get the English worked out, the printing can still be a problem. A particularly delightful example recently described Anritsu's new "ERROR RATE MEASURING EQUIPMENT".

* * * * *

A few Wood Lane pulses quickened recently when "The Engineer" displayed a large headline which said, "Tory MP to query Sir Keith Joseph over future of BREL".

The reference was in fact to the other BREL - British Rail Engineering Limited - and they will no doubt continue to get more attention than we do in the technical press. Could there be a prize for the most heart-stopping BREL headline? Unlikely, but keep sending them in.

* * * * *

Mike Fox has put us right on the significance of "Knickerbocker News" (Royal Wedding Diary - July, 1981, BT).

Chambers' 20th Century Dictionary (1972) gives the definition of Knickerbocker as:-
"descendant of one of the original Dutch settlers of New York; (capitals) a New Yorker; (in plural) loose breeches gathered in at knee"
(from the wide-breeched Dutchmen in Knickerbocker's (i.e. Washington Irving's) humorous "History of New York").

Irving's book came out in 1809. The illustrations by Cruikshank (possibly to the 1848 edition) have the breeches in. The first usage in this sense is 1859.

The title of the newspaper is therefore not so incredible as it may at first seem. Mike says that he actually prefers the "Tombstone Epitaph" of Tombstone, Arizona - alas now gone to Boot Hill!

* * * * *

Last word this month comes from Mrs Deborah Wood in a letter to The Times recently.

"If it wasn't for marriage, nine out of ten divorces would never happen."

Please send your suggestions as to the precursor of the tenth divorce, on a post card to

* * * * *

THE DRUM

Gently at first he taps his drum,
Instantly his cage comes alive,
Beat after beat forms link after link in his mind.

People pass before the bars,
Missing the beat with a stare,
Unknown to himself, he cries.

In his mind the ladder he climbs,
Night after night, endless heights,
Eight beats to the bar on the big base drum.

Eventually the tightrope surrounds him,
He juggles beyond respect,
Only the spotlight applauds him.

With a roar he begins,
The silence reached a crescendo,
His mind slips from gear.

The colours mingle in fear
Light and sound fuse together,
Reality becomes his dream.

P. Jennings

LT FARES

PROPOSED LONDON TRANSPORT FARE REDUCTIONS

Details on the proposed reduction of fares on London Transport and the restructuring of the fares system and how these effect annual season tickets are given below. The planned date for the general fares reduction is Sunday, 4th October, 1981.

TICKETS ISSUED AFTER FARES REDUCTION

The Central area of the Underground will be divided into two zones (which overlap slightly) - the West End and City, see attached map. Season tickets which involve journeys into or through these zones will change in validity so that the holder will be able to have unlimited travel within the relevant zone(s). For example, a season ticket which currently reads "Ruislip to Bond Street" will now state "Ruislip to West End Zone" and the holder will have the freedom to travel anywhere and at any time in the West End zone without further cost.

A journey to a station in the further of the two zones, the ticket will no longer read for instance "Ruislip to Bank" but will read "Ruislip to West End and City Zones". The holder will then be travelling through (and paying for) the West End zone, thus gaining the freedom of the whole of the West End and City zones.

Tickets for other journeys wholly outside the zones will remain "Point to point" as at present. Also tickets to the first or boundary station in a zone will remain in the current "Point to Point" format e.g. Ruislip to Baker Street. It is only if you go beyond the boundary station in a zone that you get the zonal type ticket.

TICKETS ISSUED BEFORE FARES REDUCTION

So much for the future, with regard to the annual tickets in current use these present no problem as they can continue to be used until they expire. After October 4 they will acquire "zonal status" for either West End or City zones, or both if the route goes through one zone to the other. And as a temporary added bonus if the station shown on the old style ticket is in the overlapping section, then the newly acquired "zonal status" will be valid in both City and West End zones irrespective of route.

Through tickets from British Rail will also assume "zonal status" where appropriate.

LEVEL OF REDUCTION

Because of the addition of zonal freedom to season tickets for journeys within or penetrating the Central Area, there will be a considerable variation in the actual reduction an individual will receive. However, except for journeys where the single fare will remain 20p, and those involving travel outside Greater London, no season ticket holder will receive a reduction of less than 10% and some may well receive reductions of up to 30%.

All staff who hold annual season tickets will have already been advised of the arrangements for refunds by the Personnel Department.

WEST END ZONE

*Aldwych
 Baker Street
 Bayswater
 Bond Street
 *Charing Cross
 *Covent Garden
 Earls Court
 Edgware Road (M)
 Edgware Road (B)
 *Embankment
 *Euston
 *Euston Square
 Gloucester Road
 *Goodge Street
 Great Portland Street
 Green Park
 High Street Kensington
 *Holborn
 Hyde Park Corner
 *Kings Cross
 Knightsbridge
 *Lambeth North
 Lancaster Gate
 *Leicester Square
 Marble Arch
 Marylebone
 Notting Hill Gate
 Oxford Circus
 Paddington
 Piccadilly Circus
 Pimlico
 Queensway
 *Regents Park
 Russell Square
 St James's Park
 South Kensington
 Sloane Square
 *Temple
 *Tottenham Court Road
 Vauxhall
 Victoria
 *Warren Street
 *Waterloo
 *Westminster

CITY ZONE

Aldgate
 Aldgate East
 *Aldwych
 Angel
 Bank
 Barbican
 Blackfriars
 Borough
 Cannon Street
 Chancery Lane
 *Charing Cross
 *Covent Garden
 Elephant & Castle
 *Embankment
 *Euston
 *Euston Square
 Farringdon
 *Goodge Street
 *Holborn
 *Kings Cross
 *Lambeth North
 *Leicester Square
 Liverpool Street
 London Bridge
 Mansion House
 Monument
 Moorgate
 Old Street
 *Russell Square
 St Pauls
 *Temple
 *Tottenham Court Road
 Tower Hill
 *Warren Street
 *Waterloo
 *Westminster

* A station in both zones

Section Reports

GENEALOGY SECTION

EVENING CLASSES

A large number of Colleges and Institutes now run part-time courses in Genealogy and Family History. The 1981-82 edition of Floodlight lists the following eight venues in the ILEA area alone.

City University
South London College
Mary Ward Centre
Morley College
Chelsea-Westminster Institute
Lambeth Institute
Marylebone-Paddington Institute
Thameside Adult Education Institute

Further details from the colleges, whose addresses are given in Floodlight (40p).

There are almost certainly other courses in boroughs outside the ILEA, but no details are to hand.

CFI MICROFICHE

No news yet of our request for microfiches from Salt Lake City. Our initial order covers 2 counties, not countries as stated last month.

SEA ANGLING SECTION

As Chris Buchan, the Section Secretary, took off from Wood Lane for a holiday in France, his parting comment was "do me a favour and write a few words for the old BT about our last fishing trip".

Only five members braved the blazing sunshine on Tuesday, 11th August to spend 4 hours anchored in flat, calm sea over a sunken wreck began fishing for conger eel and ling. Generally, a successful day with everyone catching something and Derek Glockner and Lee Cohen catching that little extra something, namely, Conger eels of 41 and 47lb respectively to join Chris Buchan as full members of the British Conger Club (the qualifying weight for a wreck caught specimen is 40lb). The full catch was as follows:-

Derek Glockner:	Conger (41, 31 & 6lb)	ling (24lb)	=	102		
Lee Cohen	:	Conger (47lb)	ling (20lb)	Pollack (6lb)	=	73
Alan Bangay	:	Conger (27lb)	ling (15lb)	=	42	
Chris Buchan	:		ling (26lb)	=	26	
Graham Taylor	:	Conger (10lb)		Pollack (6lb)	=	16
				TOTAL CATCH	=	<u>259 lbs</u>

The Film Column

A programme of films has now been selected for the coming season. The choice has largely been based on three criteria; the popularity of the film as indicated by the film poll, availability and price. Four of the top five films in the film poll will appear in the programme: the exception being "The Deer Hunter" (first choice) which is unavailable.

Programme

Oct. 28th	The Sunshine Boys
Nov. 18th	All The Presidents Men
Dec. 9th	Last Tango in Paris
Jan. 20th	One Flew Over The Cuckoo's Nest
Feb. 17th	Breaker Morant
Mar. 17th	Monty Python and the Holy Grail

We are looking forward to seeing you all at the soiree on October 28th and at all subsequent film shows. Season tickets are available from members of the Film Committee.

Helen Royal

FOOTBALL SECTION

Hammersmith Lunchtime 5-A-Side League

Results to 26/8/81

A Team		B Team
v Elementa	0 - 3 (Cup)	v GLC 2 - 2
v Computers	0 - 0	v BT (Telecom) 1 - 6
v Wimpeys B	3 - 1	v Wimpeys B 1 - 3

Recent results obtained by our A team appear to provide further confirmation that their fortunes are at long-last improving. (Though, in writing this I feel as the Chancellor of the Exchequer must feel when he comments on the state of the economy). Their last match before the August recess was arguably their best team performance of the year, the only real lapse occurring when Peter Jennings back-passed to our goalkeeper and hit the goalpost instead.

The results obtained by the B team appear to indicate that their fortunes might, in contrast, be waning. This is probably not the case, however, for the team was without several of its regular players when it was defeated in its last two matches. The replacements, with the exception of Elton d'Souza, though willing and not totally devoid of footballing skill found it difficult to fit easily into the pattern of play that the team has established over the season.

Cricket Section

After innumerable delays through the weather, team inavailability etc, the 1981 interdepartment 6-a-side cricket competition has started. In view of the original entry of 9 teams, it was decided to run the competition on a league basis with 3 divisions, each of 3 teams. The leading teams from each of the divisions were then to compete in a "winners" division to determine the 1981 champions. Since the competition has not completed, yet, though there are high hopes that it will be completed before the end of the year, only the bare results of the matches completed will be given here, a full report will (may) appear in next months BT.

1981 6-A-Side Interdepartment Cricket Competition

	W	L
Division A: Conform	2	0
Chemistry	1	1
Eng. Dev. B	0	2
Division B: Engineers	1	0
Eng. Dev. B	0	1
Physics	Scratched	
Division C: Polymers	2	0
Optical Comm.	1	1
Maths/Patents	0	2

Conform, Engineers and Polymers have still to play decide the 1981 Champions.

GOLF SECTION

The golfing day held at Laleham Golf Course on the 22nd July, turned out to be a bit of a disaster unfortunately. It started off quite well, nearly all the players arrived on time and the morning coffee was both welcome and excellent.

The golf finally got under way about 9.00 a.m. Everything was going just fine until approximately the eighth hole when the heavens opened and stayed open for the duration.

Six players were disqualified for playing the wrong hole, and two packed up leaving eight players contending for a rather magnificent strokeplay trophy. Of these the best score was handed in by Derek Edwards who hit a very good score of 93 (net 69). A mention should be given to John Littler who hit a round of 90 but with a handicap of 15 could only manage a net 75.

The afternoons golf and dinner was cancelled, and a leisurely lunch was taken.

COMPETITION

Our next competition will be held at West Middlesex Golf Club (Greenford Road) on Wednesday, 23rd September, teeing off at 1.00 p.m. The competition will be stableford and anybody who would like to play should contact Dan Tan or Clive Carroll on 296, as soon as possible please, and lets hope we have better weather this time.

TUITION

We haven't forgotten about you budding golfers. Last year I attended an evening course of golf tuition run by the Fulham and South Kensington adult Education Institute. The course is being run again this year (see details). The lessons work out at 50p a night and although group tuition, some personal attention is given. The main function of the lessons are to give a thorough understanding of the golf swing, given by a professional.

I found them very informative and helpful to my game and shall certainly be attending again this year, why don't some of you join me? If you do wish to attend please get in quickly as these courses are popular and places are limited.

GOLF

PROFESSIONAL TUITION

£15 for 30 weeks

FULHAM & SOUTH KENSINGTON ADULT EDUCATION INSTITUTE

	Mon.	Tue.	Wed.	Thu.	Fri.
Melcombe School Fulham Palace Road, S.W.6. 01 748 7356	6-8		6-8	6-7.45 8-10	
St. Mark's School Anneke, Ackmar Road. 01 736 1087	8.30-10		8.30-10		
Beaufort House School Lillie Road, S.W.6. 01 385 6166/7		6-7.45 8-10			7-9

Enrolement Period:

Beaufort House:- Monday 14th - Friday 18th September 6.30 - 8.30

Melcombe School:- Monday 14th - Friday 18th September 7.00 - 9.00

Term commences:- Monday 21st September.

Diary of Events

- Early September - Final round of six-a-side Cricket Competition - Contact Peter Walters.
- Sept. 14th - 18th - Enrolment period for professional golf tuition at Fulham and South Kensington Adult Education Institute - Contact Dan Tan.
- Oct. 14th - Next BT publication date.

Regular Events

- | | | |
|-------------|---------------------|--|
| Tues/Thurs. | Badminton | - Contact Vic Banks |
| Tues. | Keep Fit | - Contact Dave Cole |
| Thurs. | Running | - Contact Dave Cole |
| Thurs. | Bridge Practice | - Contact Roy Fraser |
| Thurs. | Air Pistol Shooting | - Contact Peter Walters or Denis Groombridge |
| W/E | Hot Air Ballooning | - Contact Roger Millward or Joe Lou |



**SHARE 81
OPTIONS**

EMPLOYEE

THE NEW SHARE OPTION SCHEME

Subject to Inland Revenue approval,
the new Employee Share Option
Scheme will come into operation in
October 1981

If you join the scheme

- you get an option to acquire shares in BICC at a fixed price ;
- you pay into a building society savings scheme for 5 years - then:

EITHER you can acquire the shares **AT THE PRICE FIXED 5 YEARS EARLIER** and any gain in their value since then is yours - **FREE OF INCOME TAX;**

OR you can have your savings back in cash, **PLUS A BONUS** equal to 18 months' contributions - **TAX FREE;**

OR you can leave your savings for another two years to earn an **EXTRA BONUS** equal to another eighteen months' contributions - **ALSO TAX FREE**

**WITH TERMS LIKE THESE
IT'S WORTH LOOKING INTO**

**For more
details**

- you will receive a leaflet
- watch for an announcement in LINK
- ask your personnel manager