

SUPPLEMENT TO THE **HISTELEC NEWS**

APRIL 2007

"ELECTRICITY IN THE BRISTOL BLITZ "

You may be surprised that we are publishing stories of the Bristol Blitz now i.e. no anniversary to celebrate, but they were only found in the Archives recently by our Chairman and he considered that they are very interesting and therefore may be of general interest to the membership. They were first commissioned by our Secretary, Peter Lamb, in the late 70's for the booklet he was writing "Electricity in Bristol". The authors are the late A.H. "Faraday" Proctor, lastly Assistant Chief Engineer HO and the late Bill Dorrinton, Commercial Engineer Bristol North. Please note BCED stands for Bristol Corporation Electricity Department.

BCED – THE WAR YEARS

by the late A.H. "Faraday" Proctor (Nickname derived from BCED's 1st Chief Engineer)

Preparation

Advantage was taken of the respite between Munich and the outbreak of hostilities to give staff basic ARP training in first aid, fire-fighting and self protection according to the duties they were likely to be allocated.

Emergency stocks of basic materials together with electrical plant and cables were placed at strategic points as first stages of dispersal. Complete network switching schemes were to enable the rapid restoration of supply should any major substation should be put out of action e.g. supplying the whole of Avonmouth from Feeder Road. These measures proved most effective in reducing outage times, when St. Paul's cables were hit and again when balloon trailing cables disrupted supplies in the South West, South Somerset and parts of Dorset were supplied from Feeder Road!

Organisation of ARP

In common with the other utilities, the Department formed a sector of the City's ARP Repair Party organisation. Representatives were in shifts at the Broadmead Central ARP Control, whence they liaised with the Department's ARP Control, first in the basement of newly completed Electricity House and then at Cairns Road, when the former was requisitioned for aero-engine maintenance. Cairns Road was also linked with the Generating Stations, Primary Substations and offices over the Department's private telephone system. Shifts at Cairns Road composed of distribution and clerical staff, who had duplicate mains records and maps available. During the raids, mobile members of the shift were called out to make buildings electrically safe for the fire-fighters and rescue parties. They were identifiable during action by flashes and RP/E on white steel helmets.

Protection of Assets

Key establishments were guarded by the LDV (later Home Guard) protected by monitored wire fences or manned by fire-watchers according to the importance. Appropriate security passes were issued to staff for entry into the Department's premises and protected establishments throughout the City.

Raid Damage

Most of the extensive damage effecting electricity supply was sustained naturally during the Blitz period from 24th November 1940 to 11th April 1941 i.e. between air-raid siren warnings 274 and 359. Outside this period there were of course a large number of incidents, but these were treated as routine in comparison with the experiences of the saturation raids and the effects on the electricity supplies and wartime production could be classed as minimal.

Generating Stations

Portishead sustained minor damage from near misses with incendiaries with no effects on station operation. Feeder Road on the other hand received two direct hits, one in December 1940 and the other January 1941. The first raid caused severe damage to the main switch-board and transformers, one of the latter disappeared for ever in the depths of the crater. Although most supplies to most of South and East Bristol were restored in a few days, it was with minimum of normal circuit control and protection. In addition to replacing switch-gear and transformers, permanent repairs involved recabbling most of the Station. The Station was operating more or less normally by the following January, when it received a second direct hit. This time recovery from the first effects was such that most supplies were restored within 24 hours.

Temple Back Substation and Workshops were damaged by fire mainly during raids in December 1940 and April 1941. Supply was unaffected by these incidents, but the Substation was ineffective when Feeder Road suffered major damage and also when the adjacent St. Philips Bridge was hit in the April raid. The bridge subsided into the River the next day when the cables, Tramways and BCED then supporting it, were cut away.

Transmission Cables

They suffered only two major incidents. The first was a direct hit on the St. Paul's cables in Dean Street in December 1940. Supply to the City central area was restored by alternative switching programmes until cable repair was possible. The second direct hit was on one half of the Portishead to Feeder Road interconnecting cables at Abbots Leigh in April 1941. No supplies were lost and temporary joints, which lasted many years, were devised.

Distribution Cables

These demonstrated extra-ordinary elasticity. During reconstruction work, sometimes years later, it was frequently found that cables still functioning normally had been stretched and bent sharply to conform to the crater contours and on one occasion, two cables had complete loops in them! In contrast small section cables adjacent to a crater in Avonmouth had vapourised completely leaving a copper/steel plated "mole-run".

Substation Buildings

These suffered damage much in keeping with the surrounding properties, electrical damage was generally slight to nil. A master substation at Henbury was flattened by the blast but first inspection through the roof, which was now resting on the switchgear, showed that it was still functioning and meters indicating satisfactorily, so the first aid repair comprised one tarpaulin sheet. Wine Street Underground substation continued to function for some years even though its pavement covers were under ten feet of rubble from the buildings that no longer had need of it! A bomb during the 1941 Good Friday raid made a crater in Redcliffe Hill such that access to the underground substation there was achieved by climbing up from the bottom of the crater and through the gaping side wall. The Good Friday raid was such that the incident had not been reported and was only discovered by chance on the Sunday morning. The General Hospital had been without supply, when all that was needed was a jointer with a hack-saw to restore the alternative feed within half-an-hour.

Operational Buildings and Offices

These suffered on two occasions. Arrangements had been made to disperse half the meter test gear to a second location on 25th November 1940. On the night of the first Blitz, 24th November, a direct hit was scored on the Rupert Street building housing the Distribution Main Store and the Meter Department. It was a wooden interior constructed building and became a white hot shell almost in minutes. The fact that the top floor was a store for the BAC aero engine company containing magnesium alloy contributed to the "Brock's Benefit" spectacle. With borrowed equipment, meters were being certified within two weeks at a location, which was the second of six used during the war period. The partial restoration of the old Colston Avenue offices after the Good Friday Blitz occupied many of the staff for the next few days. Fire had spread from the printing works next door and could not be controlled due to the water shortage and the loss of a complete fire-fighting unit outside. Maps and office machinery were removed from the burning building and placed in the fish

& chip shop at the rear. Entry was soon barred to the shop when it was discovered that the volunteer removers had been driving over an UXB (unexploded bomb) at the bottom of Christmas Steps!

Construction and Reconstruction

The long term work after the period of the raids was concerned largely with the removal of service cables from destroyed buildings, numbering thousands, and ensuring the electrical safety of tens of thousands of damaged buildings. Two projects of the type, which followed rush meetings with a considerable array of Allied “gold braid” were connected with the build-up for “D” Day. One, a longer term project, was to provide temporary welding supplies to oil storage tanks and many substations supplied at the Hallen pipeline, pumping and storage complex. Attendance for seven days a week for many months was required, without which there would be no “D” Day. The second project was an example of instant requirements – a complete substation with a ¼ mile of cable was requested to provide a non-standard voltage supply to a packaged aircraft assembly hanger in two days. The target was achieved and the engineer was reprimanded for not completing all the paperwork!

There were many personal involvements, which must have been indelibly impressed on staff during the period, when a life-time of experience was crammed into a few years. - A cable repair gang had a grandstand or rather a prone view from the middle of the airfield, when a Polish Hurricane Squadron destroyed a bomber force attempting a second daylight raid on the Filton Works in September 1940. - An engineer was groping his way across the Suspension Bridge and found a bomb, fortunately a small one, which had just landed on the chain anchor point. - A fire-fighter apologising for his late arrival at Temple Back as “The Half Penny Bridge was hit as I started to cross”. - Another engineer had to wait for the burning down of the Dutch House before squeezing past down High Street.

Although most operational members had “their own bomb”, it was fortunate that there were no casualties occurred while engaged on the work of the Electricity Department.

A.H. Proctor 13-3-80



Fig. 1
Electricity
House
swathed in
camouflage

REMINISCENCES OF BCED AT WAR

As recalled by the late Bill Dorrinton

My first wartime BCED memory occurred shortly before War actually broke out, in fact early in August 1939 when I was Assistant Control Engineer at Portishead "A" Power Station and for some reason the Shift Engineers were slightly at odds with the Station Superintendent over some small matter. During the various arguments with the Super, he had remarked "Pooh, Shift Engineers – they're three & penny". One Monday morning I came on duty to relieve the night shift, when the night Control Engineer, a not-very-young bachelor, called "Ethel" Squire said he would not be going home just yet, as he was going to wait and see the Superintendent when he arrived at 9.00 am.

About 10.00 am when we were having our morning cup of tea in the Control Room, the Super came in obviously in a furious temper. "Ethel" Squire was due to come on duty again that afternoon, but he had told the Super that he would have to get some-else to do the shift as "Ethel" would not be there. It appeared that without telling anyone "Ethel" had joined the RAF Reserve and had received his call-up papers on the Saturday, telling him to report to RAF Filton at 12.00 hrs on the Monday! The Super gave us his opinion of people who did things like that. Our Charge Engineer "Skipper" Keeling did not improve matters by throwing a penny down on the table and saying "Aye, aye, aye, here's a penny - go and buy yourself three more Engineers". Incidentally, "Ethel" Squire spent a happy and peaceful war living at home and being posted, as Corporal in charge of Battery Charging and Maintenance at Filton Aerodrome.

By Sunday 3rd September 1939, I had been promoted to Charge Engineer at Avonmouth Rotary Sub-Station, which supplied DC and AC electricity to Avonmouth Docks and the surrounding area. By then we were on war footing and the Station was equipped with a machinegun post manned by a detachment of the Queens Own Regiment, who were billeted in the cable basement. On this eventful day, I was on day-shift, and I invited the Corporal in charge of the guard to come up into my office and listen to the Prime Minister's speech declaring war on Germany at 11.00 am. Five minutes later the Corporal had a visit from his Commanding Officer, who told him to man the gun-post and to post sentries with loaded rifles at the door of the Station. At 11.15am I received a telephone call from our Night Headquarters at Temple Back, which read "To Faraday Bristol stop switch on stop quintelect stop". This was the code signal from the Electricity Commissioners instructing the Undertaking to implement the secret instructions kept in the Station safe. I opened the sealed envelope and sat down to try and digest the mass of information on every conceivable subject contained therein. Nothing much happened, except that a stream of personnel started to arrive in my office from all parts of the Undertaking. "Please sir, I am a First Aid Party", "Please sir, I am a Rescue Party", "I am a Messenger", "I am a Warden", "I am a Fire Watcher" etc. My instructions told me to expect their arrival, but did not go so far as to tell me what they had to do, so we all adjourned to the Mess Room and had a tea party joined by the off-duty members of the Guard. In due course my relief arrived, and so ended my first day at War.

The window of the Charge Engineers Office was immediately above the front door of the Station, and one morning a few weeks later I was looking out of the window watching the traffic in St. Andrews Road, when I saw an army car stop outside. Out got an Army Officer who made his way up to the front door and came inside, but from my position I could not see his face, but I could see that he wore a Major's crown on his shoulder, so I brushed my hair down and went out onto the Switchboard Gallery to receive him when he came up to report on the premises. To my surprise he walked straight through the Engine Room and out of the back door into the main Transformer Compound. This seemed unusual, and I became even more suspicious when, after a few minutes, he came back through the Engine Room out of the front door, got into his car and drove away towards Chittington. I went down to the Basement and told the Guard Commander what had happened. He immediately turned out the guard, and came up into my office to telephone the Military Police in Avonmouth. In a very few minutes a Lieutenant of the MP with his attendant Corporals arrived and came into the office to hear the full story. I was telling him what had happened and we were leaning out of the window when the same car came back. The Lieutenant blew his whistle and told his squad to stop the car, arrest the occupant, and bring him under escort up to the office. This they did, but when the offender came into the room I recognised him as Mr. Wally Jayne, whom I knew as the Sales Superintendent of the BCED. He explained that as a member of the TA, he had been called up, and being in the area, had wished to revisit the old place. Thus all was well, except that he got a respectful dressing down from the Lieutenant for failing to report his presence to the Charge Engineer, which is a strictly observed rule when entering any Power Station.

In March 1940 I was again moved, this time to the position of Charge Engineer at Temple Back Rotary Substation, which supplied DC electricity to most of the City. My next memory is of a certain Saturday afternoon that summer, when I was day-shift, and by that time Electricity House had been sufficiently built for the Electricity Department to occupy the basement as its Garage and Workshop. Early on that afternoon I received a telephone call from the Shift Driver on duty in the Garage to the effect that "some bloke" had come into the premises, produced a requisition notice, and given us two hours to evacuate, I spoke to the gentleman concerned, who said he was a Brigadier representing Lord Beaverbrook, head of the newly-formed Ministry of Aircraft Production, and Electricity House was to become an Aircraft Factory, I rang up the Chief Engineer & General Manager, whose first reaction was "They can't do that", so I suggested that he should come into town and see the Brigadier. This he did, and soon afterwards a slightly sheepish Chief rang me to say "I was wrong, they can". Then came a hectic hour arranging with the Police for all the Departments vehicles to be parked in Lewins Mead, Host Street, Christmas Street, and surrounding roads, arranging for red lamps from the City Engineer, contacting the Post Office to have the telephone lines, including our Direct Line to the Fire Brigade, re-routed to our Service Department Workshops in Host Street. In those days when Lord Beaverbrook waved his wand everybody jumped and no argument was entertained, very different from these days!

Various old jobs at Temple Back were shared out amongst the staff, and it fell to my lot to be responsible for the Firewatchers and the Fire Pump, a Coventry-Climax Trailer Pump supplied by Bristol Fire Brigade. Each night a team of four members of the staff did duty from 5.00pm to 8.00am ready to turn out and deal with Air Raids should they occur, but as nothing had yet happened, the duty was popularly considered to be a waste of time dreamed up by the bosses. As a part of my duty was to sound practice alarms at various times of the day and night, a lot of the resentment also fell on me, and the men got their revenge by "accidentally" arranging for the fire branch to turn in my direction! The force of the jet was quite considerable, and on one occasion nearly tipped me into the Floating Harbour much to the delight of the Fire Party.

The Station telephone exchange was one of the Air Raid Message receipt points for the Undertaking, and this meant that at no time whatsoever could the phone be left unmanned. One exchange line was reserved solely for Air Raid Messages, and this had to be answered within 5 seconds, or else the call would be cancelled and the Post Office would send a report to the Chief Engineer. I was proud to say that throughout the war no such report was sent for any period when I and my shift were on duty, although we had some near escapes at times. The telephone exchange had by then been moved from its old position off the Engineers Office into a "cell" of the old HV Switchboard, which had been further strengthened with steel joists to make it proof against anything short of a direct hit.

The Charge Engineers Office was the old original one built at end of the last century, and was situated over the Cooker Repair Workshop, which had been the original Boiler House, access being obtained from the Switchboard Gallery in the Engine Room. One of the windows in the side of the Office was removable, and this gave access to a walk-way on the roof at the end of which was a Plane Spotter's Post. Whenever an Air Raid Message, YELLOW (giving warning of a possible air raid), was received, one of the staff took up his Post equipped with a powerful pair of binoculars and an Aircraft recognition handbook. His duty was to shout information about any activity through the window to the Charge Engineer for him to take any necessary action.

On Wednesday 25th September 1940 I was on day-shift and Air Raid Message, YELLOW, was received at about 10.00am, followed shortly by Air Raid warning RED. My spare Shift Switchboard Attendant, Ron Thomas, went out through the window to take up his post as Plane Spotter. Soon afterwards the "Raiders Overhead" buzzer, operated by our Cairns Road ARP Control sounded, so I operated the klaxon horn in the Station, telling all non-essential staff to go to the Shelters. Within a few minutes Ron called out "Two or three planes approaching from the south", followed by "There's dozens of them coming". This was followed by the sound of running feet along the roof, and Ron fell head first through the window shouting "There thousands of the bastards". That was how we knew of the huge daylight raid on Filton Aircraft Works, which caused so much damage and killed many people.

One morning a few weeks later I arrived at the Station to take up duty on the day-shift, and made my way up to the Switchboard Gallery, when lo and behold, where the door of the office should have been there was

nothing but a gaping hole! An oil-bomb had scored a direct hit on the office during the previous night's raid, and the office had been completely destroyed. I spent that day supervising the re-routing of telephone and alarm wiring by devious means into another "cell" of the old HV Switchboard which from then was used as the operational office during air raids. Repairs were soon put in hand and the office was rebuilt, this time in reinforced concrete instead of wood, supported above the Workshop on steel columns and reinforced with steel joists.

The most spectacular times were on the morning after a heavy raid and occurred on the DC Switchboard. On most occasions we lost our incoming EHT supply, which came either from Feeder Road Generating Station by one route or from St. Pauls Distribution Centre in the opposite direction. The loss of supply meant that the Station was shut down during the raid, and we had no means of telling which of the outgoing Direct Current distributors had been damaged by bombs. We used an old cooker main-switch with small fuses fitted, and made the cable alive by closing the switch with a piece of wood about ten-foot long. If the cable had been damaged there was an almighty bang as the fuses blew on 500 volts DC; a load which they had never been designed to carry. Not infrequently, if the damage was near the Station, the switch was completely destroyed with a most spectacular shower of sparks. The old DC Switchgear was rather outdated, and staff kept well clear of the switchboard during a raid if we were still on supply, as lumps of molten copper were often thrown out of the switches. If a cable received a hit, and on one or two occasions it did, the whole switch was blown across the Engine Room.

To give some idea what life was like in those dark days, I would mention that I had joined the Special Constabulary in February 1939, and served throughout the war and for many years afterwards. Whenever I was not at work, I had to report at Bedminster Police Station every time the sirens sounded and remain on duty until the "All Clear". In October 1940, one of my fellow Charge Engineers was injured in an air raid, and the three remaining Engineers were on a three-cycle shift of days, evenings, and nights averaging 56 hours a week. In one particular week that month I did my 36 hours at work and also did 96 hours police duty out of the 168. This left little time for sleep and none at all for amusement, even if one had felt like it. Such was life for most people, who were left behind to hold the fort whilst our colleagues fought the enemy.

The most serious BCED incident, in which I was involved, was during the night of Good Friday 1941, when one of the heaviest and most sustained raids took place. By that time we had altered our shift rota, as we frequently found that the night-shift were unable to get on duty at 10.00pm owing to the raids, and the evening shift had to stay on duty from 3.00pm to 9.00am the next morning. We changed to a two-shift day 9.00am to 5.00pm, and 5.00pm to 9.00am, working two weeks of alternate nights followed by one week of days. Owing to the continued illness of the fourth Engineer we had, no days off for several months and were very tired. On this occasion I had been on duty on Maundy Thursday night, and when I went off duty on Good Friday morning I did not expect to see Temple Back until 5.00pm on the following Saturday. Having coped with a night of raids, I retired to bed and after about 7 hours sleep I rose for breakfast about 5.00pm, and had just finished eating when the air raid warning sirens sounded. Into uniform and onto my bicycle I travelled from home to Bedminster across the City. I got as far as the bottom of St. Michaels Hill, by which time it was obvious that Bristol was the target for tonight with flares and bombs dropping all over the city. At the top of Colston Street I saw a lone motor car making its precarious way through the falling debris, so I stepped out to stop it and advise the driver to take shelter, when to my surprise I recognised his as "Ceddy" Blaekett, one of our mains engineers. He told that our Colston Avenue Offices were on fire, and asked for my assistance. I decided that the Police could wait for a while and I went to Colston Avenue, where I found the top floors of the Offices to be well alight. Luckily, the Mains Maps and records had been removed from the Mains Office on the top floor., and were stored in an alleged fire-proof brick-and-concrete room, which had been built in the yard. The sole fire appliance in attendance obviously could not control the fire, and it seemed likely that the building would collapse at any moment, so it was decided to try to get the indispensable maps out to a place of safety. Several members of the staff had by then arrived on the scene, so a human chain was formed to carry the documents from the yard to cars outside. I found myself in the Map Room pulling the maps off the racks, bundling them up, and throwing the bundle to "Uncle Arthur" as the Chief Engineer and Manager, Mr AJ Newman, was known. We had just about cleared the lot, when we were ordered out of the yard by the Fire Brigade as heavy debris was falling into the yard from the collapsing building. However, within a few minutes we finished the job, most thankfully ran out to a safer place.

On to my trusty bicycle again continuing my journey to Bedminster, and taking cover as best I could, when I heard a bomb whistling down near at hand. Eventually I made it, and reported on duty about 10.0pm. Imagine my 'delight' when, together with War Reserve Constable WR1 06B, I was detailed for guard duty at Temple Back Power Station. 106 and I set off with instructions that we would be relieved at 2.00am, to return to Bedminster for refreshments, as the meal break was called. We duly arrived at 10.30 having met the late tour guard on the way. The raid was still in progress, but was perhaps not quite as heavy as it had been, and we heartily hoped that it might end soon. The whole Power Station had a cable basement beneath it, and, this had been adapted as a very strong Air Raid Shelter for the station staff, and at night it was also used by the inmates Dr. White's Almshouses, which were situated in Temple Back opposite the Station. Incidentally, we were greatly indebted to the old ladies from the Almshouse, who spent the Raids placidly knitting skull caps for us to wear under our steel helmets as a protection from the icy weather.

To return to my story - we found our quests settled down in the basement, the Firewatchers on duty, the Charge Engineer in his office, and the Switchboard Attendant and Telephonist at their posts, so we commenced our patrol around the Station boundary. The bombing had ceased, and the only sounds to be heard were the throbbing of fire pumps, the crashing of falling buildings, and the rear of the many fires still blazing. A quiet hour or so passed, but the lull ended about 1.00am, when the "Raiders Overhead" buzzer in the station sounded again, and "the muck" started to fall. At about 2.00am the raid was at its height, and, after consulting my colleague we went into the station and ordered all the staff to go to the shelter. Having seen this order carried out, I told 106 that I would telephone to our Sergeant at Bedminster and tell him that we would not come in for refreshments as the raid was too heavy. I advised WR1 06B to get under cover, but he said his duty was outside the Station, and the most he would do was to stand at the top of the steps leading from the Yard into the basement taking some slight shelter from the doorway. I went into the Telephone Exchange to speak to Bedminster, and just had time to pass my message to the Sergeant, when there was an almighty bang outside. The Sergeant said "Blimey, that was not far away, when the phone went dead, and the running machine on load started to slow down, showing that once again we had lost our incoming EHT supply. This was followed by the most awful sound I have ever heard, as though the whole building was collapsing. I am not ashamed to confess that I dived under the Telephonists table and covered my head with my hands thinking my end had come at last. After a minute or two, the noise subsided, and I plucked up courage to come out from under the table, open the door of the Telephone Room and peep out into the Engine Room. What a sight met my eyes! The Engine Room had a glass roof, onto which had fallen tons of debris, and the machines were covered in rubble and broken glass, which was the cause of the noise I had heard. I went out into the Yard, and the first thing I saw were huge blocks of stone lying all over the yard, and a six foot length of tram rail firmly embedded in the tarmac. I called out to my colleague, and, receiving no reply and receiving no reply was afraid that he must have been killed or seriously injured, but, after a few calls I heard a feeble reply from the basement, and found him crawling up the steps. He had been blown, backwards down the whole twelve foot flight of steps and, was only bruised. Naturally, we decided, that there must have been a big 'un nearby, so we set out to have a look, 106 going towards Temple Way, and I making for Bath Street.

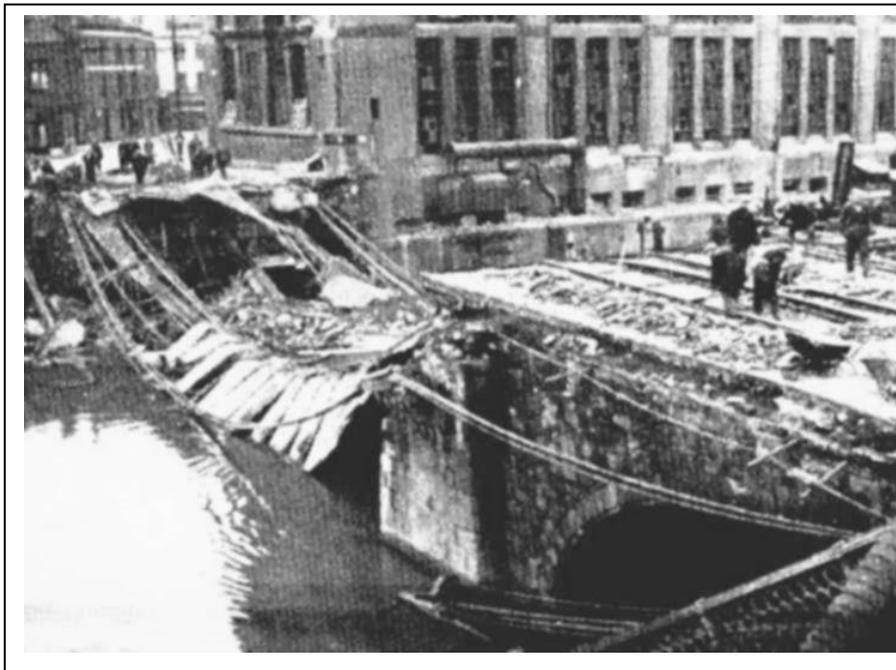
I looked around - there seemed to be no buildings missing, no fires, nothing except an abundance of debris. By this time I had reached the corner of Temple Back and Bath Street and turned my eyes towards Old Market. They nearly fell out of my head. No bridge, only the remains of the carriageway drooping into the Floating Harbour supported by a tangle of electric cables. At this moment I heard the bell of a Fire Engine approaching from Old Market, so I ran up to the edge of the broken bridge, waved my torch, blew my whistle and shouted, but still the lights of the Fire Engine came on. Luckily he saw the missing bridge just in time to skid to & stop on the brink, to my great relief as I do not like cold water and was not looking forward to having to dive to the rescue. I went back into the Power Station to report the matter to Bedminster Incident Control, but found I could not get through, so I reported it to Central Division and told them the demise of St. Philips Bridge. I later found that the bomb, which had demolished the bridge, was one of a stick of three, the last of which had fallen in Redcliffe Hill, demolishing Redcliffe Hill Underground Substation, and severing the telephone cable between Central and Bedminster Telephone Exchanges.

Having got matters under control, I went outside to find WR1 06B, and met him coming back from Temple Way. He said he could find nothing much amiss, no fires, all the buildings still there, so I said "Come and see what I have found" and took him to Bath Street. One often hears the expression "and his mouth fell open", but I had never before seen it actually happen.

The raid had now ended, our stick of bombs being Jerry's last effort, so we thought we would thought that we would go and see how the staff of the Tramways Power Station on the other side of Bath Street were getting on. We went into the Engine Room only to find them in a very distressed state with streaming eyes and coughing their heads off. Some bomb fragments had pierced the refrigerator cooling tubes of the Avon Cold Stores on the other side of the Harbour, and the slight breeze was blowing the ammonia gas through the broken windows, straight into the Power Station. I have previously said that Temple Back had lost its incoming EHT supply when the bomb fell, and this was due to the Standby Feed from St. Pauls being on load with the cable coming over St. Phillips Bridge. The Charge Engineer on duty Mr. Karney was able to switch in the supply from Feeder Road, and we soon had some AC supplies available, the first job being to put the kettle on! Messages were sent out to the Station staff and soon Tim Tucker, the Charge-hand Electrician and his staff were hard at work clearing glass and rubble from No.5 Motor Converter to get it ready for load. Luckily it was a fine night and the machines did not get wet, so once the dirt was cleared up the machine could be started and DC supplies were restored about 9.00am.

Two small sidelines, the first about Bristol Tramways - by that time there had been so much damage to the tram tracks that all routes had been abandoned except for those to Kingswood and Hanham from Old Market, and the Company had applied to the Ministry of Transport for permission to close these routes also. On the following day, Easter Saturday, the Ministry's Inspector was due in Bristol to hold an enquiry into the application and to see if permission could be granted to change to buses. The demolition of St. Phillips Bridge had severed the Tramway Company's cables to Kingswood and Hanham, effectively separating the trams from their source of power, and the Inspectors comment was "It would seem that my Enquiry is somewhat superfluous and permission to close is granted". This must have been one of the shortest Enquiry's on record.

The second sideline concerns the EHT cables supplying Cattybrook Brickworks at Almondsbury, which made their way down Sunday's Hill in that village. A random bomb fell in that road on top of the cables exposing them to view in the crater. They did not seem to be damaged, but it was thought best to cut out the length affected and to lay in a new piece. Some 50 yards of cable was jointed into place across the crater, and the old cable was removed for salvage. When this length was measured, it was found to be 75 yards long, the cable having stretched by about 50% without breaking! Many more the incidents which occurred during these years, some funny, some sad, and I hope that these recollections of mine may be of interest to those who have come into this world too late to experience them.



**Fig. 2
St.Philips
Bridge
wrecked
by bombs**