

# Supplement to the **HISTELECT NEWS** No. S54 August 2013

## **SWEB Central Accounting Office (CAO)**

**By Peter Lamb**

*The story of SWEB's central accounting activities is a fascinating subject, some of which have been reported in various magazines and papers for many years, and these are stored in the SWEHS Archive. I have tried to write a synopsis of these, but as you will read we are short on the modern developments that have taken place since the 1980's, but may be it might prompt someone unearthing some later material. I am indebted the late Ann Friend who supplied us with many of these photographs some ten years ago. Also recently Colin Gale and Brian Swindells have helped with additional material.*

---

At vesting day in 1948, one of the first jobs that the accountants had to organise, was the consumers' bills to 600,000 customers. As you may imagine all the 39 undertakings, absorbed into SWEB at that time, had different systems for billing consumers, so it was necessary to set up a common system and transfer the larger consumer groups onto the system as soon as possible and at the same time ensure that older systems still functioned satisfactorily until transfer was possible. The problems were great and the resources were meagre; nowhere in the area were there available any accounting system or equipment in keeping with modern practices and in some places they were rudimentary.

At the start SWEB inherited two Powers Samas tabulators and a few aged keyboard machines from Bristol Corporation. Plymouth Corporation on the other-hand had a composite bill with rates and water charges on their machines, which were not available to SWEB. One undertaking combined gas and electricity on one bill, and of course all the undertakings had their own individual tariffs.

Initially four accountancy centres were established, Plymouth, Taunton and Bristol and Pool, near Camborne, but within a short time, following the Board meeting of the 17<sup>th</sup> May 1949, these were reduced to two at Plymouth and Bristol. The Hollerith punch card system manufactured by International Business Machines (IBM) was chosen and it was decided at this stage to install this in two of the centres, firstly at Plymouth and later at

Bristol. The first machines were set up at Armada Street in Plymouth in February 1949, by April a small staff from both the Plymouth City Treasurer's Department and from Plympton R.D.C transferred to SWEB to form the nucleus of the Plymouth Billing Office, transferring naturally the Plymouth and Plympton accounts first. This involved transferring all the details of each consumer from manual records to punch card. By April all the Plymouth accounts had been transferred. The Armada Street premises had been built in 1899 as the main offices for the Plymouth Corporation Electricity Department and extended to include a Rotary Substation to boost the DC supply for the Trams travelling up the nearby North Hill.



**Fig. 1 Armada Street premises**

The Board Papers state that there were considerable difficulty in transferring the Christy Brothers and Chudleigh accounts. Bristol followed not long after with similar machine installation at Electricity House. The

centres were the direct responsibility of the Chief Accountant, Eric Knight and two Assistant C.A's, Charles Orton and R. Gilliam, with Mr. L. Cholerton in charge at Plymouth and Mr. G. Slawson in charge of the Bristol office.



**Fig. 2 Armada Street office with Hollerith Billing Machines**

After much discussion, it was finally agreed with all parties to standardise the tariffs and in 1951 a report was presented to the Board, which replaced 137 different domestic tariffs. This was agreed and greatly eased the production of bills throughout the whole area.

In the same year, the Billing Office (CBO) at Plymouth had outgrown its premises and a new office was acquired at St. Teresa's Old Bakery, Beaumont Road, occupying the 3<sup>rd</sup> & 4<sup>th</sup> floors with Dingles below. At this time the billing activity was reduced to two centres, Plymouth and Bristol, which didn't last very long, since Bristol billing was transferred to Plymouth leaving the Bristol office as an accounting office only.

By 1955, the seven year contract with Hollerith expired the next year and it was decided to take the opportunity to explore new electronic systems, if the Board were to keep abreast of modern techniques. As a first step along the road to automation, it was decided to re-machine the Plymouth office with electronic calculators and dual-feed accounting machines by IBM, manufactured in Greenock, Scotland. The change-over at Plymouth was fixed for 1<sup>st</sup> October 1956 and it was decided to change the whole system in one operation. The first job was to change 3 million Hollerith cards to IBM name and address cards. The dual-feed accounting

machines used smaller number of cards and were faster, producing the complete bill (under 3 secs), including both address and figures in one operation.



**Fig. 3 Beaumont Road Office showing the Punched Card Machines 1960**

Shortly after this with the new machine system operating satisfactorily, it was decided to transfer the Bristol Billing activity to the Plymouth Office, all of which was achieved in one weekend. In the ensuing year other functions were transferred. By July 1957 all SWEB accounting had been transferred to Plymouth. The other functions included Stores Accounting, Hire Purchase, Payroll and Salaries, Invoicing, Rechargeable Invoices, Internal Audit and Stationery Stores. The Plymouth office was then renamed the Central Accounting Office (CAO). By July 1959 Mr J.G. Byers AIMTA, ASAA was appointed replacing Mr. G.G. Vincent as Accountant-in-Charge. Mr Byers had been Sub-Area Accountant (Somerset) previously.



**Fig. 4 At Beaumont Road with IBM Accounting Machines 1960**

The centralising actions were given a boost in a book published in 1961 by Professor FMG. Willson, "Administration in Action", in

which SWEB accounting management were complimented for the bold decisions that they had made in establishing an efficient central accounting system.



**Fig. 5 Senior Staff 1961 – Centre – G. Vincent, with G. Byers & Ken Clarke to the right. The lady is Ann Friend**

By 1962 it was decided to move to computerised accounting and the Board's first computer IBM 1401 was installed. With the new system installed, the staff had increased to 40 men and 110 women, mainly girls straight from local schools. The benefits were considerable, producing bills more speedily, thus improving cash-flow. It was realised that a saving of one day in billing throughout the year could reduce interest charges by £15,000 a year. The significance of cutting down the interval between reading the meter and billing to 2 or 3 days may therefore be appreciated. Costing and accounting information could now be produced automatically as well.

In 1963 a report was made to a Government quango on "Electronic Data Processing in the Nationalised Industries", where SWEB appeared to be streets ahead of the other nationalised bodies listed and at that time were considering a scheme for covering prepayment accounting. It was also stated that big savings had been made by installing the new computer replacing four accounting machines and the salaries of two senior operators. Obviously it was one of the best accounting offices in the Country at that time.

In October 1966 the computer was replaced with a larger machine, an IBM 360, incorporating magnetic disc storage of information. By the late 1960's the Beaumont Road premises was overflowing having taken

over all the floors. It was decided that a move to a purpose built building was essential and a site was acquired at Manadon on the Crownhill Road out off Plymouth, the address being 334 Outland Road.

The building was designed by the SWEB in-house architects, under the direction of Steve Goodchild, who had only a year previously been involved with designing the Avonbank heat recovery building at Bristol, which had been opened in 1970. The CAO Building was completed in 1971 and staff, by then consisting of 350, moved in on 26<sup>th</sup> November 1971. One of the last major jobs accomplished at St. Teresa's was the complete decimalization of all the accounts.

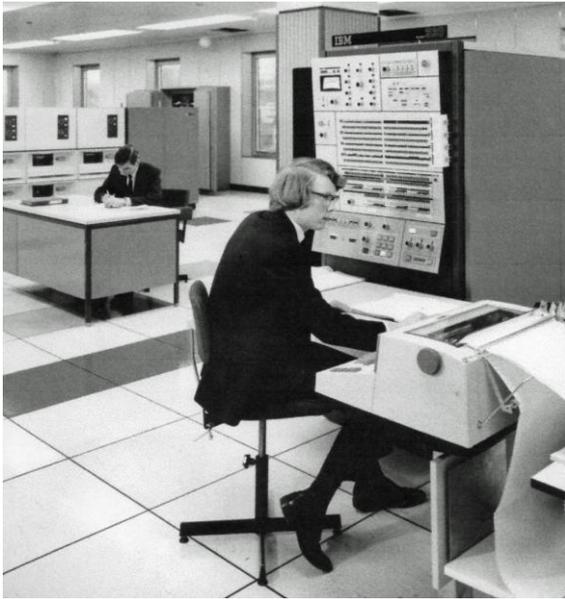


**Fig. 6 The Manadon Building in 1971**

The new CAO building was officially opened by the Lord Mayor of Plymouth, Mrs. Dorothy Innes, on 4<sup>th</sup> February 1972. The building cost £900,000 including furnishings, but the sophisticated data handling system cost even more at £1,000,000. Again the building was designed with a heat recovery system employing "integrated environmental design techniques", which can be described as an air conditioning system, where heat from the lights is re-circulated for economic reasons. The system differed from the previous Bristol building in that it used a conventional all-air system with a central air-handling plant situated on the roof of the five storey building.

Again a much larger computer was installed an IBM360/Model 50, which was commissioned in December 1971. There were two central processing plants. Also an optical character reader was installed with provision

for the recognition of hand written numerals, a considerable innovation at the time.



**Fig. 7 New IBM Computer Installation at Manadon Office**

By 1973 the place was humming with 4 million bills being sent out to roughly a million customers in a year, involving 100 million pounds, a considerable business.



**Fig. 8 Inside view of the Manadon Office**

At this time Mr Byers retired and the management was then split three ways with Messrs Peter Bird, Ken Clarke and Claud Williams in charge. The lines of Management were Information Systems, Accounting Services and Computing. Mr Tony Gibbons and Steve Sunter joined Ken Clarke as Information Systems Manager and Accounting Services Manager respectively during the late 70's and 1980's.

Computer technology doesn't stand still, so two new computers were installed in 1981, IBM 3033 for Accounting and an IBM 4331 for Engineering purposes. The computer

doctrine had by then spread to all departments with engineers developing programmes for statistical analysis, system monitoring & planning and maintenance. Also the Commercial Departments were demanding marketing and tariff analyses and consumer record details.



**Fig. 9 Ken Clarke, Steve Sunter and Bob Brown with visiting MP Janet Foukes in 1982**

In May 1983 CAO had a new IBM 3083-E16 at a cost of £520,000 and the new Computer Manager was Brian J Swindells, who was later replaced by Mike Tuckett in 1990's. In March 1988 CAO installed a new computer IBM 3090-200 at a cost of £1.57M, but within three months they were asking the Board to upgrade to IBM 3090-300E for a sum of £1.372M, which was achieved by June 1989. The age of the personal computer had then dawned, so there was a move away from centralised systems to localised terminals such as the point of sale in shops and 'doorstep billing'. This resulted in a growth in computing facilities and a move away from having only IBM computers. Over the next few years computers from Amdahl, ICL, DEC and others were installed, but may be that's another story in itself.

After privatisation in 1990, SWEB became South Western Electricity plc and was eventually sold to an American company, who sold off all the parts excluding the distribution system. Nine years later the SWEB title and the billing system were sold to EDF with SWEB being renamed Western Power Distribution (WPD). The Manadon Office became the main billing office for EDF which included other areas such as London, South East and Eastern territories.