

# Bits & Bytes

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No 45

## Editorial

One of my regular contributors left this "mortal coil" on the 19 July 2017, having left his mark on all who knew him. Hamish Carmichael joined Powers Samas just a few weeks before I started work with the British Tab in the autumn of 1958. He had been in the Royal Navy for his National Service and I had just finished four years in the Royal Air Force. We never worked together and we only became friends after both of us had retired after 36 years with ICT, ICL and Fujitsu. I said to him earlier this year that we must have been in parallel universes as we shared similar interests but our paths never crossed during our working lives.

Hamish was one of the best "wordsmiths" that I have ever come across and he very kindly sent me his autobiography "The Bits that I Remember", just a few weeks before he died. It is a very interesting and amusing story of his life and I have discovered many things about him that I didn't know. For instance, he played the guitar and in the 1960s appeared on the BBC programme "Town & Around" with Michael Aspel and Richard Baker, singing his own songs about topical news items, like the Beeching Report.

Hamish will be missed by all who knew him but he really used his talents during his 83 years. His proudest achievement was his editorship of two volumes of ICL anecdotes, "An ICL Anthology" and "Another ICL Anthology". He also worked tirelessly as the Computer Conservation Society's and Science Museum's archivist and his legacy will continue for years to come.

Another of my "reporters" died on 23 August 2017. Peter Walker, aged 88, who I first met in the ICT office in Dusseldorf in 1964 when Alan Wray and myself installed one of the first ICT 1500/RCA 301 systems. Peter was a "Punch Boy" from the age of 16 and went on to sell ICT peripherals to Eastern Bloc countries. He became friends with Heinz Nixdorf and his family which he wrote about in Bits & Bytes No 38. My wife and I attended his funeral on 20 Sept 2017 at Hanworth.

**Adrian Turner**

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## Nortel Pension Fund

Pensioners in this fund have finally received some good news, after eight years, about the proceeds from the "lockbox". Maybe they will get their dues by the end of 2018!

## Yet Another ICL Anthology

Just before Hamish Carmichael died, he asked me if I would finish the 3rd anthology ("yet another ICL anthology") in conjunction with his widow Kathy. He had amassed a sizable collection of stories but there was still some way to go. So, I am writing to as many people as I can to see if they have any further amusing or preferably, wicked, anecdotes. Spread the word as far as you can and send contributions to dik@leatherdale.net. It is unlikely that it will ever appear as a "proper" book, but it will end up on the Bits & Bytes website, next to its two predecessors Dik Leatherdale

## A letter from America

Here are a couple of potential memories for your excellent news piece that you publish.

I cannot add much to the previous tales of ICT/ICL Croydon, Letchworth or the Customer Engineering Group in the City, so here is a write-up on a special little mostly unknown part of ICL. Some of the apprentices who had only half completed their four-year obligation from the closed Croydon plant, were farmed out to various locations in the Customer Engineering world to continue their training and education. There were four such kids in my year. Two went off to Luton while two others went to Stevenage and later Letchworth. ICL put us up in a house in Hitchin run by an older lady. To our delight, her brother was the local priest and mentored us in beer brewing in the cold dank cellar. Which was just as well as sadly a large number of the bottles exploded.

Tucked away at the end of a cul de sac that backed on the main line railroad track in Stevenage, was a large "hut". Well, slightly bigger than a hut, but compared to the monolith of other places ICL had, it seemed like a hut. It was a unique place. It was where "slightly used" computer processors and peripherals would go to be refurbished and resold. Some of the clunkers that had previously passed through this facility were held in "legend status". Whatever was a "ten-o-four"? It was spoke of in such high esteem, its capabilities must have surpassed that of a Cray.

We apprentices were set loose on stripping down the smaller end of the ICL disc drive products and rebuilding them to spec. The ones we mostly worked on held 2 huge Mega Bytes and were odd in that they rotated vertically. But they were great units for us newbies to cut our teeth on. There were CPUs around

the place, but we were not yet worthy to touch “brain matter”.

The facility had about a dozen ICL employees. Plus, a cook. She would ask us each morning what we wanted for lunch, and it would be ready when lunch time came. A different world from the factory environment we had left behind in Croydon. The place also had a level of camaraderie I had not seen in a workplace. A very special place. Was sad to leave there after six months and being shipped off to CESO HQ in Letchworth. That gig was pretty fun too. We were given a pile of electronics magazines and told to go off and build and experiment for six months in the back room. Our only obligation was to pass our exams. But we missed “the cook”.

Other technology experiences to mention. One of my tedious tasks in the Croydon factory was to test the CPU ferrite core stacks. They held either a massive 4K and 8K of memory. After leaving Croydon, I was looking forward to having never to have to deal with those heavy monsters again. Wrong! In fact, double wrong. I worked for a guy named An Wang for a year in the late 70s. He was a character. Devout anti-communist refugee from China. If you so much as mentioned the word union while in his employ at Wang Laboratories, you quickly found yourself unemployed. Anyway, it was An Wang who invented the ferrite core memory. He sold the patent to IBM for one million dollars which he used to start his company. An said selling the patent was the dumbest financial move he ever made.

Later on, I flew and tested B-1 bombers for a living. The B-1 has guess what, a 256K ferrite core memory. Reason is that it is Electro Magnetic Pulse resistant necessary for nuclear warfare. It weighs a ton. Newer aircraft use magnetic bubble chips. It is even bloody heavier than ferrite core. You could get a hernia removing and replacing one. So, throughout my career, the ferrite core curse was hard to shift. But technology moves on, or does it?

**Dave Churchman**  
Seattle, WA

## **Dave Hooper's Life in ICT/ICL**

I had arrived in Stevenage in the early 1960s as an Electronics Engineer to work at De Havilland Propellers on their Blue Streak project. As was not uncommon in those days, after a couple of years the project was cancelled by the MOD and I had to seek pastures new.

After a year as a Technical Author, I was recruited by my previous boss back to the old firm, now called Hawker Siddeley Dynamics to work on the guidance system of a new stand-off missile, Blue Steel. This was effectively an analogue computer system, and as I realized that digital computers were the probable future, I took a digital computer course at Hatfield Poly to learn some basics of this new technology.

At the end of the Blue Steel project, in about 1964 I joined Elliott Automation in Borehamwood, where a new range of 4100 processors were replacing their old 803/503 systems. I became part of the 4120-design team and its derivatives until 1967 when I took my family to Sydney, Australia to see what it had to offer. Not a lot for me in reality, although I landed a job as a Telemetry engineer working at a Prime (one of three globally) NASA tracking station in Canberra,

Australia on the Apollo Lunar project. I was determined return to the UK, which I did.

## **1969 - 75 ICL Stevenage Labs**

This was possibly one of the happiest decades of my entire working life. I was working with some of the best guys I had ever met, and the job was very satisfying. Not the best paid in the world, but the best I could get, and enough for my family of four to get by with a few treats like regular foreign holidays.

While I had been away in Australia in 1997/8, many things had happened back in the UK computer industry. Harold Wilson had encouraged a set of mergers of the leading UK computer companies. Elliott Automation and EELM joined ICT/Ferranti and formed a new company called ICL. So several of my old Elliott colleagues from Borehamwood had been promoted and were now working in Stevenage.

Mechanical engineer Sid Martin had joined ICL as had facilities man Colin Marshall. Logic designers Graham Cavanagh, Trevor Faulkner and Alf Davison were also there.

I met Ron Feather and subsequently got hired to work with Alf Davison's Prototype Commissioning team on a new peripheral controller called PF 56, later followed by working on the New Range processor 2960. This was in Ted Forshaw's group under Brian Long.

The idea was that the original designers would first get the development machine to meet its specification – or most of it! Then Alf Davison's team would get a pre-production model to work, and then CED supplied a team to look after a 3rd prototype. I think that was when I first met Mike Connolly and Adrian Turner. Once all the design problems had been ironed out, true production could then start at Letchworth.

This is when I first met Bryan Moore, Roger Simpson Jnr, and Maurice Jones. Then followed several good years of employment, which included a difficult 6-week task in the US at Control Data Corporation in St Paul, Minnesota with a PF 56 doing interfacing trials with a CDC processor.

I can recall a departmental meeting being called in the early 1970s after Brian Proctor & Wally May had been to the US and had caught up with the latest computer comms. developments. They gave us a lecture on what has turned out to be the beginning of the Internet. We heard about a US military system called ARPANET that connected US military centres together using packet networking, and they had recently included some research universities such as Harvard & Cambridge into the net. I think that the terminals were teleprinters. At this time, the world-wide-web had not been invented.

Sometime in 1971 I learned that Wally May had been to visit Control Data Corporation in St Paul, Minnesota, with the idea that as the two companies were using a Standard Interface, our PF56 controller could be exercised while connected to CDC peripherals.

It was decided that one of our pre-production PF56's should be sent over to CDC together with an engineer plus a programmer. So, Len Vaughan and I were volunteered for the trip, which would hopefully be completed in just two weeks with successful running of our test programs. However, things did not go exactly to these plans! CDC engineer Tom Crushak was assigned to liaise with us, and he was a very good guy.

CDC had agreed with Wally May that we would not get 'prime time' access to their equipment in their test area, and they had allocated us a slot on their night shift. (10am – 6pm) Normally, this would have been OK, but this was bad news for Len & me, and it caused us a bit of a problem as we were staying in a Holiday Inn at St Paul. During our daytime sleeping time, there was continuous loud banging noise going on while carpets were being refitted in the rooms above ours. So, we were increasingly knackered.

We sensed that CDC were not really confident that we had a reliable machine, as they noted several 'breakdowns' during our initial self-testing (loop) mode, all which were eventually traced to badly fitted pins on our ELCO connectors. Also, our PF56 had several PCBs with 'non-standard' circuits. The correct DIL chips for some functions had not arrived from the chip vendors and we had some PCBs fitted with hybrid circuits build out of discrete components. These not only looked a bit tacky (compared with neat rows of DIL chips) but they were actually quite fragile, and we feared that they might not have survived the trip. New PCBs had been sent from the UK as replacements, but these had become stuck in US Customs, and they did not arrive until after we had departed.

However, even after many hours of perfect self-testing, the interface when connected to CDC would not run for the required 2-3 hours without a timing failure. Well, 2 weeks stretched to 3, then 4 weeks and we were eventually running out of money. CDC did not seem to be very concerned about our plight, so finally I declared that we were to return to the UK and I booked our flight. This provoked CDC to examine their equipment in greater detail and, lo & behold, they discovered that a number of timing modifications at their end were still outstanding. Once installed these modifications proved to cure all the problems, and we did eventually achieve our target results, albeit rather hurriedly.

Some weeks later, Graham Cavanagh returned to CDC with Alan Walton to repeat the PF 56 interface trial, and I understand that they had more problems than I did. After all that effort, I do not believe that the ICL/CDC joint venture was really a commercial success.

In retrospect, I felt that ICL should have sent one of the design team for this initial exercise, as although I knew most of the details of the RFA/AFA/RFB/AFB hand-shake procedure, I had done no design work on the specification and I could not argue with conviction that ICL had correctly implemented the agreed design. So, in that respect, I was at a slight disadvantage.

In summer 1975, out of the blue, news arrived that our offices in Stevenage 05 were closing and being merged with ICL West Gorton in Manchester - ex Ferranti. Some folks were given redundancy packages only. Others, like me, were offered jobs up North plus 3 trips with all expenses paid to decide on a new place to live up there. The news caused great consternation in my family. Even after only one trip there was a united front of wife + 2 daughters against me taking the new job offered. Even I wasn't too keen. So, I accepted the redundancy package and once more looked for new job. Fortunately, I now had both computer skills and previous avionics experience, and GEC were recruiting engineers for their new Nimrod project.

## **1977 - 1981 ICL Stevenage CED System Engineering.**

I had heard on the grapevine that John Harper was now working for CED at Stevenage in the old Labs department and he was heading up a small team known as 2960 System Engineering. He already had ex-1900-man Arthur Pearce plus a couple of others. I joined him, together with Dave Gough to help resolve persistent field engineering problems.

This involved writing technical support documents for field distribution, inter-departmental liaison, and communication with the field engineers. Also, regular progress meetings at Gorton, Kildgrove and Newcastle under Lyme made for some variety.

This job with John was just as interesting my previous time with ICL, and I wanted it to continue for ever. However, that was not to be, and in 1981 the team was wound up for commercial reasons.

I had not forgotten the Oil/Gas industry as a future, and now was the time for another push.

**Dave Hooper**

## **Hamish Carmichael's Last Project**

In 1984, I transferred to ICL Winnersh, a few miles east of Reading, to encourage the wider uptake of INDEPOL I moved into International Defence Systems, run by Iain Colquhoun. Iain was Irish, an ex-submarine commander, an inveterate smoker, and great fun to work for.

Over the next few years we installed INDEPOL systems with the Royal Malaysian Police, the Royal Hong Kong Police, several users in Australia, and - my favourite - the Botswana Police. I found Botswana a delightful country, and its people extremely pleasant to work with. The novels of Alexander McCall Smith capture the spirit perfectly. And besides, the manager of ICL Botswana, Kitso Mokaila, was a great guy, able to interchange insults with Iain Colquhoun with great gusto and inventiveness. He's now a senior minister in the Botswana Government.

Then we also got involved with a very clever start-up company called Cambridge Neurodynamics, which flourished in the arcane field of neural network computing, which I'm not going to try to explain, because it was always entirely over my head.

They introduced us to the charting technique developed in California by a company called Anacapa, which helps to create a visual representation of all the connections that crop up in a complicated investigation between people, places, weapons, phones, documents, etc. A small team at Bracknell, (and these people were really smart), developed the Intelligence Analyst's Workbench to automate Anacapa's functions. The Lancashire Constabulary used IAW to plot a mass of phone calls which took place over nearly two years following the murder of a Manchester accountant who had found that his New York client was conducting a massive fraud. The New Yorker was astonished when the IAW's Anacapa chart provided the evidence to have him arrested, extradited to UK, tried, and convicted.

Cambridge Neurodynamics also applied their neural technology to fingerprint recognition, where it proved much faster than traditional techniques. I was glad to learn that it had been adopted by the police in Sheffield. By now it has probably spread much more widely.

And it was a very exciting day when we set ourselves up on a footbridge over the A14 north of Cambridge and saw the neural network technology for the first time doing its wizardry in recognising the number plates of the vehicles passing beneath us. What a long time ago that now seems.

I was extremely fortunate to have become involved with such fascinating items of advanced software and hardware, and with the whole world of police work and its dependence on flexible handling of information. My last few years with the Company were among the very best.

But in 1994, when I reached the age of 60, I decided that I'd had enough. It wasn't the job, or the people, or the technology, that prompted this decision; it was the commute. Our home in Tolworth was forty-two miles from the office in Winnersh and, with the increase of traffic, the journey was inexorably growing to more than ninety minutes each way. (Though it had provided one of the rules for the next time: always live to the east of where you work, so as you commute in the morning you've got the sun on your back, and can see the poor blighters on the other carriageway screwing up their eyes against the light; and likewise, in the evening as you go home with the sun behind you.)

So, for thirty-six exhilarating years thank you Powers Samas, ICT, ICL and Fujitsu. You gave me a marvellous time.

**Hamish Carmichael 1934-2017**

### **Frank Tilley 26 Dec 1922- 15 Mar 2017**

Frank Tilley was born in Hackney, London, on Boxing Day 1922, the youngest of 8 children. After education at the Grocer's Grammar School, Hackney and Hackney Technical College, he joined Dessouter Brothers, in Hendon, manufacturers of artificial limbs.

The work did not exactly fire Frank's enthusiasm. The call for men to join the forces at the outbreak of war seemed to offer an escape route, but it was not to be. Much to Frank's dismay he discovered that he was in a "reserved" occupation. However, he eventually discovered a loophole – the embargo on his recruitment did not extend to RAF aircrew.

So, it was that in early 1943 that Frank presented himself at RAF Cardington as an aspiring aviator. Deterred by the length of training required to become a pilot, he opted for a trade which admirably suited to his engineering aptitude – that of Flight Engineer. A few months later he was formally called up and instructed to report to the Aircrew Reception Centre at Lord's cricket ground in St John's Wood, before being posted to No. 3 Initial Training Wing at Torquay, where he was introduced to the discipline of service life. After six weeks of lectures on Air Force Law, endless drill and relentless physical education and swimming designed to transform pale civilians into toned fighting men, he was posted to No. 4 School of Technical Training at St Athan, in South Wales in September 1943.

Here Frank was taught the intricacies of aircraft engineering and systems; engine management to obtain the most economical fuel consumption and optimum power settings, fuel management to balance the aircraft and reduce the strain on its structure, and a myriad of other technical details necessary to maintain the aircraft systems in the air. Despite his

aircrew status, Frank had yet to experience any form of flying; training was conducted using diagrams and test rigs, graduating to the real thing in the form of the written off aircraft relegated to ground instructional airframes.

By March 1944 Frank was deemed sufficiently proficient to become part of a bomber crew. Along with others from his course he was posted to No. 1660 Conversion Unit at Swinderby, Lincs. Here he teamed up with six other young men who had already formed a crew and had been training on Vickers Wellingtons. Now they were about to convert to the Short Stirling, a more complicated machine, necessitating a seventh crew member – the Flight Engineer.

The crew that Frank joined reflected the cosmopolitan and all-embracing social nature of Bomber Command. The captain Arthur Joplin ('Joppy' to the crew) was a 20-year-old clerk from New Zealander, the bomb aimer, Loftus Hebbard, a fellow Kiwi, at 24, the oldest member of the crew. From Lancashire Basil Fish the navigator, had been studying civil engineering at Manchester University, and air gunner Robertson Yates was a classics scholar, the other gunner had been a carder in a woollen mill. Having mastered the Stirling the crew transferred to a so-called "Finishing School" at Syerston, for a week or so of learning to master the machine in which they would go to war, the Avro Lancaster.

At the completion of this course the crew were dumbstruck to learn that they were to be posted to No. 617 Squadron – the "Dambusters" based at Woodhall Spa. This was a special duties squadron, which normally only took on experienced crews who had already survived a tour of 30 operations. However, an experiment was being introduced whereby a few new crews who had demonstrated above average ability were posted directly to the Squadron. It was intended that the newcomers would learn by example and osmosis, in effect being fast tracked to a level of operational expertise.

They arrived on the Squadron in mid-August 1944, at first feeling rather overwhelmed by the propensity of experienced crews and unsure as to how they would be received as a "sprog" crew. Their concern was unfounded. After an initial wariness, they found themselves absorbed into the routine of extensive practice and training in order to achieve the precision for which the Squadron was renowned. It was a steep learning curve, but they found support and encouragement.

The crew's first operation came a fortnight later, no easy "milk run" but a daylight attack against the heavily defended port at Brest. On this occasion the target was not the reinforced concrete U-boat pens, necessitating the 12,000lb 'Tallboy' deep penetration bomb, but various vessels in the harbour attacked with 12 x 1,000lb bombs. All seemed to go well, but they were unable to observe any results owing to smoke and spray.

The crew had insufficient experience to participate in the Squadron's next operation, their first attack on the German battleship Tirpitz, flown from an advanced base in Russia. For his second operation, Frank found himself as stand in Flight Engineer for S/Ldr Drew Wyness for a night attack against the Dortmund Ems Canal. It was a tough operation. Poor weather over the target forced the crew to return with their 'Tallboy' – but at several times during the return

flight their heavily laden aircraft had to fend off approaching German night fighters. They were fortunate, although one of the Squadron's aircraft was not so lucky.

'Tallboys' were in extremely short supply, and needed to be conserved whenever possible. A daylight operation to attack the sea wall at Walcheren on 3 October saw the squadron positioned at the end of an attack by other aircraft of Bomber Command. On arrival, the target was seen already to be breached and their bomb was brought home. Their first opportunity to release this weapon came four days later, during an operation against the Kembs barrage, on the River Rhine, near Basle. The attack was to be made in two parts – an initial high-level force to cause confusion and distract the defences, followed by six aircraft coming in along the river at 600 feet. Bombing from 7,500' in the first wave, the crew reported a very near miss close to the barrage.

Tirpitz had been brought south to Tromsø following the previous attack and was now within range of aircraft operating from Scotland. Now a proven crew, their next two operations were directed to finally despatch this vessel. On 29 October, they were part of a force of aircraft from Nos. 9 and 617 Squadrons which detached to Lossiemouth where they refuelled before heading for the Arctic Circle. After a flight of nearly 7 hours they reached their target. The weather was clear, but as the Squadron made their bombing run a layer of low cloud moved in. Despite this, the crew released their 'Tallboy', as did some of the other aircraft, but the cloud had prevented accurate aim. Tirpitz was not so favoured when the squadrons returned on 12 November. The leading bomb aimers were able to see the battleship clearly and soon it was surrounded by smoke and spray into which following crews including Frank's dropped their 'Tallboys'. By the end of the attack, after at least two hits and several near misses, Tirpitz had rolled over to port, and capsized. There was insufficient depth of water for her to sink beneath the waves, but as the aircraft turned for home sight of her dark red keel confirmed the success of the operation. The long flight home was exacerbated by headwinds and despite Frank's careful management of fuel the additional fuel carried it was deemed prudent to land at Sumburgh in the Shetlands to refuel before finally returning to Woodhall.

December saw a return to land based targets, with two attempts, along with other aircraft of Bomber Command, to breach the Urft Dam, near Heimbach. Once again, the weather was against them. On the first attack on 8 December not only was the weather against them, but heavy flak struck their aircraft, forcing them to limp back and put down at the nearest UK airfield, Manston, in Kent. Three days later they tried again, only to see their 'Tallboy' overshoot the target.

After one more daylight attack, against the R-boat pens at IJmuiden the Squadron found themselves detailed on 21 December 1944 for a deep penetration night attack against an oil refinery at Politz, near Stettin (Szczecin) in Poland. For four of the crew, including the pilot, it would be their first night operation over Germany and to make things more difficult there was the expectation of poor weather on return to the UK necessitating possible diversion to other airfields at the end of an eight-hour flight. The outward flight was uneventful and the crew reached

the designated area, but found that the target marking appeared haphazard. After releasing their 'Tallboy' against a nominated marker they headed for home, setting course for their designated diversionary base in Scotland, which would have not only the advantage of clear weather, but would also shorten the length of the flight. Soon afterwards the wireless operator reported that they were being ordered to return to Lincolnshire. Although this would stretch their fuel reserves Frank considered it was a viable option and they headed for Woodhall Spa. As they crossed the coast it became apparent that Lincolnshire was still shrouded in fog. A further instruction was received for all aircraft to land at the first available airfield. It seemed that crew were in luck, for very soon they saw a glow through the murk which was identified as the airfield at Ludford Magna. That this was visible was solely due to the fact that it was one of a small number of airfields equipped with FIDO –using burning petrol to disperse fog on the runway approach enabling aircraft to land in such conditions. Joppy homed in on the glow and circled, calling up and asking permission to land. There was no reply. The crew were now in a perilous position. Other aircraft would also be circling, increasing the risk of collision, and Frank reported that their fuel state prevented diversion to any fog free airfield. They needed to land as soon as possible and were also aware of the rising ground of the Lincolnshire Wolds beneath. A few minutes later, while still circling, a sudden shudder ran through the aircraft as the port wing brushed a hillside. Looking out past his pilot, Frank was seemingly aware of the wing beyond the outer engine bending upwards. Joppy immediately called for more power and Frank responded by pushing the throttles forward. The aircraft was still airborne, but only just, and would not remain so for long. After a further bump, a horrendous noise and violent shaking then everything became still. Frank looked back and saw that the cockpit and nose had broken off from the main fuselage. Shouting to the navigator to get out, since the wreckage was on fire, he tried to get clear, but found that he could hardly stand. With great effort, he crawled and dragged himself clear of the cockpit and to relative safety. Looking around him, he saw the Basil Fish, the navigator removing smouldering flying kit from the wireless operator before heading back to the blazing wreckage to rescue Joppy who was trapped in his seat. This done, the navigator went back in effort to locate other members of the crew, but the heat of the flames drove him back. Realising that he was the least injured and the only one of five survivors with any degree of mobility Basil set off across the fields in search of assistance, having briefed Frank to listen out for a series of whistle blasts that would signal his return. Nearly three hours later Frank heard a whistle, and sounded his own in reply to guide the rescuers to the injured.

Frank was admitted to the RAF Hospital at Rauceby with a broken leg and severe bruising to the other. Considering that he was not strapped in at the time of the crash since his role as flight engineer required him to stand for much of the time next to the pilot, or perch on a rudimentary canvas sling seat, he was incredibly fortunate not to be far more severely injured. As his condition improved, he was sent to Hoylake for convalescence before returning to Woodhall Spa in August 1945. However, by now the

European war was over, and following V-J Frank was keen to return to civilian life. However, it would be another eighteen months until this could be achieved, during which Frank re-mustered to a clerical role, serving with Polish units operating in Transport Command and finally left the Service in February 1947 to commence a new career with the National Cash Register Company, which eventually led him into the world of computing. He retired as Worldwide Technical Services Manager for ICL in 1982.

**Dr Robert Owen Official Historian  
No. 617 Squadron Association**

## Frank Tilley

I attended Frank's funeral at the Stevenage crematorium on 6 April, where his family, friends and many of his colleagues, from the RAF, BTM/ICT/ICL and members of his golf club gave him a good send off.

Frank and John Bennett started the Punch Card Reunion in about 1988, when it met every other year at the ICL Sports Club in Letchworth. In 1995, they suggested that they were too old, 73, to continue organising it and asked me to take it on. I have organised the reunion in Stevenage every year since as the Punch Card Reunion (PCR) and more recently as the Stevenage and Letchworth Old Boys (SLOBS).

Maybe I should be looking for a young person to take over as I am now 80!

**Editor**

## When you are gone

Recent deaths have highlighted a problem for people who want to write an obituary for an ex-colleague.

We have worked alongside somebody for many years but when the question is asked "where were they born, educated, joined the company?" we suddenly discover that we hardly knew anything about them and their family background. This is especially true for those who never married and have no close relatives. Can I suggest that we should each write a potted CV giving these basic details so that when we die the eulogy given in the church or crematorium, and published on the Bits & Bytes website is factual.

You should also produce a list of friends and ex colleagues with their phone numbers and/or email addresses so that they can be informed of your death.

**Editor**

## Funeral Details

The Bits & Bytes website will be amended soon so that funeral arrangements can be published quickly to enable friends and colleagues to attend. Longer obituaries can be sent to the webmaster and will be published separately.

## Life as a 'Yes' man

When I retired after 43 years starting with ICT and finishing with FJS I wasn't quite sure what the future held for me. However, it soon became clear.

I have always enjoyed fixing things so naturally all and sundry bring their I.T. problems for me to sort. As mentioned in an earlier edition of Bits&Bytes I enjoy sorting problems for those who were let's say, of an advanced age when gadgets and the internet arrived. I have discovered that I.T. to this group apparently includes robot vacuum cleaners that have started

making a funny noise! Then there is the D.I.Y., grand parenting etc etc.

What I didn't foresee was the exciting task of counting 'Yes' votes coming into Bitcount at outlook dot com. Hopefully anyone reading this will know what I'm talking about, but if not read B&B issue 40. To some this may see a low skill very boring job. Wrong, mostly! The result of seeing nearly 400 'yes' emails coming in is actually quite interesting. Why? Because when I log in to see what new emails have arrived I keep finding emails from people I met on my travels through the years and haven't heard of for 40 years or more. That starts a to and fro email chat about times past. They remember a 2980 test program I wrote in 1982, was it that bad? We chat about Mullard dilics and the overtime money destroying them. It's good to know so many of the merry band from the past are still about.

Like many good things there is also a downside. So many emails make it impossible for me to work out who sent it, e.g. certus44xx, adpип,maggieandxxxx. Hence, I have a big list of email addresses but a shortage of names to go with them. I am asked from time to time if I know the email address of somebody so they can get in touch with them. I may have it or I may not.

Incidentally, I will never send your email address out to anyone. All I will do is ask the person who was enquired about whether they wish to be contacted by the enquirer. Only if they agree will I pass any email address on.

With hindsight, I wish I had included a request such that each 'Yes' email had

a full name

A brief summary (or longer if you wish) of your job & locations.

A note to let me know if you change your email address

The summary would help with the increasing number of rather dubious emails that for example say 'Yes' and start talking about a Romanian girl that I'm sure I would remember if we'd met! When I have asked for a few locations where people have worked that gives me a fair clue that they are genuine if I get a satisfactory reply. Many have failed and hence proved to be not genuine.

If anyone with an email address that doesn't include their name would like to send me another email with the above details then feel free to send me an update

**Vince Celano**

## THE MIGHTY AMSTRAD

In 1988, I took over the post of Treasurer for a small amateur theatre in Hitchin. I didn't fancy doing all the paperwork by hand but PCs at that time cost thousands rather than the penny money they cost today. Then, out of the blue, Alan Sugar's company produced the AMSTRAD PCW256 costing a few hundred pounds. It had everything – a diskette drive, a printer with a tractor feed, a display and keyboard. The operating system was CP/M and it boasted a programming language called BASIC in which I was fluent. So, I acquired one and wrote an accounting package despite knowing nothing whatever about accounting; after all, when all is said and done, it's only arithmetic. At the same time, I wrote a ticketing system which used continuous-feed tickets and saved

us a small fortune over the years in pre-printed tickets.

In 1998, in an attempt to modernize the appearance of the box office, I transferred the software to an IBM-lookalike PC running DOS. It looked more modern although it was exactly the same vintage as the PCW256. The transfer of the software was eased by the fact that the same company wrote both versions of BASIC so there were no dialectic differences between the two PCs. As a more up-to-date computer business said in 2014 "you're still running what?!!" referring to DOS. But it was unbelievably reliable and had raised no fault of any kind in those 26 years. In 2015 it was superseded by a very modern book-online ticketing scheme.

Meanwhile the Amstrad took on a new lease of life running ticketing for the Hitchin Festival, an annual event. Reprogrammed for the Festival rather than for a theatre it comes out of store every July and, should it survive for one more year, will celebrate 30 years of being fully operational; and you can still get ribbons for the printer! Originally about a million PCWs were made so there are still spares around if necessary. I doubt there are many computers around that can boast that longevity.

**Keith Crook**

## Reunions

### Stevenage & Letchworth Old Boys (renamed Punch Card Reunion)

The annual reunion will take place on **Tuesday 3rd October 2017** at Stevenage Labs Cavendish Road SG1 2DY. 10:00-15:00. John Harper will give a presentation entitled **Hollerith Punched Card machines at Bletchley Park and Drayton Parslow during WWII**

Please send £15 to **Adrian Turner, 5, Nun's Acre, Goring-on-Thames, RG8 9BE**. Cheques should be made payable to **Punch Card Reunion**.

**There is no need to provide a SAE, as I will not be issuing tickets.**

Payment can also be made via Internet Banking, ring me for the bank details.

**Adrian Turner 01491 872012**

### Reminiscing in Palladian Splendour

To receive details about this year's event on 19th October, 2017 please email him at: -

**david.lovegrove(at)pactum.ltd.uk**

### The West Midlands ICL Pensioners

Meet for lunch, beer and a chin wag, bi-monthly on First Tuesday of the month, usually at The Square Peg, Corporation Street, Birmingham, B4 6PH from 12 noon. (Attendees are usually former Customer Services MF Engineers, POS, Key Edit, etc., from BIR03, BIR04 and 'guest visits' from NOT02).

All welcome!

### Newcastle Friday Club

On the first Friday of each month Ex (and current) ICL/Fujitsu employees from the North-East meet for a beer and bite at Wetherspoons Quayside Pub in Newcastle; we meet at 12:30, and any Ex ICL/Fujitsu people from the North East or who have had any contact with the North East are welcome.

**Mike Green 0191 386 6787**

### ICL Central London

The next reunion will be on **Wednesday 18 October 2017** at **The Shakespeare's Head, 64 Kingsway** from 12 noon. The pub is on the eastern side of Kingsway just south of Holborn tube station.

### MOD MOB

Retired and active staff from the London and MOD UK unit has met up for a number of years now, so we have now established ourselves as a sociable group of individuals. The date of the next meeting will be posted on Rod Brown's B&B Repository website.

Anyone who is retired or active and wishes to meet up with individuals who worked anywhere on MOD contracts or in the group is welcome. Lots of people worked in CHOTS as well as in the main MOD team and all are welcome, security clearance not required, just bring a smile. Email to **modmob(at)shedlandz.co.uk** for enquiries.

### Kidsgrove-Drawing-Office

The Annual reunion is held at the Bleeding Wolf, Scholar Green on the first Monday in December

**brian(at)morrismail.co.uk**

### Liverpool Engineers

We now meet about midday on the second Wednesday of every month at Weatherspoon's, Great Charlotte Street near Lime Street Station.

**Bill Wood 0151 426 4025**

### Watford-Harrow- Feltham

**Mike Ray 01895 230194**

### East Grinstead 81 Club

**Gordon Franklin 01342 328479**

### East Midlands UB40s

**Brian Skeldon 0115 9725119**

### ICL Midlands

**Brian Trow 01785 257317**

### LEO Computers Society

**John Andrews**

**GlobalLeoSociety@gmail.com**

### Surrey Engineers

**Trevor Harding 01483 565144**

**trevor(at)harding14.plus.com**

### West Gorton Reunion

**Eric W Watts 01457 875080**

### West Branch Engineers

Eric Reynolds has moved. No replacement notified.

### West Kent Reunion

**Ron Harding 01732 761076**

### ICL Old Buggas

**Les Mowbray www.cuin.co.uk/oldbuggas/**

### ExICL Kidsgrove

**Nick Edmonds 01270 585953**

**nick.edmonds(at)yahoo.co.uk**

## OBITUARIES

### Nortel Fund

Due to circumstances beyond my control I have not been able to get the list of Nortel pensioners who have died since the last edition of Bits & Bytes. So that the newsletter can be published before the end of September, it is going out with no names. When they

become available I will add them and version two will be made available on the website.

**BIR03**

**BRA01  
BRA06  
CAM01  
HOM99  
IRE02  
KID01**

**KID02**

**LET04  
LET05**

**LON11**

**LON12  
LON24  
LON30**

**LON31  
LON38**

**MAN01  
MAN12  
MAN13  
NPT01  
REA03  
REA06  
REA08  
SLH01  
SLH06  
STE04**

**STE10  
TEL01  
WAK01  
WAK02  
ZAM01  
No Known  
Location**

## **ICL FUND**

### **THE MISSING NAMES (ICL Fund)**

We enjoyed them, knew them, liked them;  
We were glad they were our friends;  
As we followed them in life  
We want to know about their ends.

Such loyalty was normal  
In the Company, we knew.  
Now they say that they won't tell us.  
What's the Trustee coming to?

From the sympathetic outfit  
That we all were proud to know  
In so short a span of years  
How has the Trustee sunk so low?

**Hamish Carmichael 3 July 1934-19 July 2017**  
**First published in B&B No 37**

### **Fujitsu Pensions Website**

<https://fujitsu.pensiondetails.co.uk>

To access Bits & Bytes click on the link given on the very bottom of the home page.

**Direct telephone line to Pensions Department:  
01235 797788**

### **Bits & Bytes Archive**

The Spring and Autumn editions of B&B will be available in the last week of March and September each year.

Please make a note in your diaries to access the website on a regular basis.

**[www.bitsandbytes.shedlandz.co.uk](http://www.bitsandbytes.shedlandz.co.uk)**

### **Facebook**

I know that many people think that Facebook is only for the young, but it is a good medium for posting pictures of old computers and old people! Search for **Facebook ICL Pensioners** and post pictures that you have of the past.

### **NEXT ISSUE**

Copy for the Spring 2018 issue must be submitted by 1 February 2018, but would be appreciated earlier.