OTVA NEWSLETTER

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Coming Events

THIS IS THE BIG ONE

November 26 at the Mandarin Club

Our End-of-Year Get Together is at noon on **Friday 26 November** in the Mandarin Club (corner of Pitt and Goulburn Streets Sydney.). If you can't make any other gathering this year, please make it to this one!! Cost will be $30 per head to cover food with a cash bar to help assuage your thirst.

RSVP to Henry Cranfield

,E.Mail:henrycra@tpg.com.au

David Richardson(02)9487.1985
E.mail:d_s_richardson@yahoo.com.au

 by the **19th November** to assure your place at this festive occasion.

Bring your partner, particularly if she/he has lived through your OTC service. There are probably a few choice bits of scandal for the editorial ear.

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THE PRESIDENT'S MESSAGE

Christmas 2004 will soon be with us. On a personal note, I am delighted to advise that we have our first grandchild to share it with. What a joy such an occasion brings to a family!

We have all, to a degree, participated in the birth of telecommunication projects which have brought to the world "instant" communications! Whether or not for the benefit of all mankind or joyous, time alone will tell. The message of Christmas, despite the increase in transmission speeds, seems lost in the chaos of today?

Our association is looking to bring to the public's attention some of Australia's telecommunication history; by presenting plaques for sites of significance. which, as yet, are unrecognised in the overly commercial world of today.

We look forward to celebrating OTVA's 50th Anniversary in 2006 and trust all will share this event with us. In our year ahead we need to involve ourselves in consolidating our membership and planning.

To all our members and the committee in particular, go my thanks for your support this past year.

May the Blessings of Christmas be with you all and may our hope be, that 2005 will bring to all mankind peace, good health and prosperity .

Sincerely

Henry Cranfield

<center>**************************</center>

SEPTEMBER SOCIAL: On Friday 17 September some 25 intrepid talkers gathered once again in the lower depths of the CTA Club to enjoy a chat and endeavour to catch up with a number of their ex-colleagues. As usual a few yarns were told and questions asked about people's whereabouts. We even picked up another member (David Waterhouse!)

It was a great little affair and very enjoyable – but remember, if you weren't there you didn't enjoy it as much as those who did make it.

Greetings though to all those, who because of the tyranny of distance or the ravages of time couldn't make it. We did raise a glass for absent friends.

<center>**************************</center>

OTC TECHNICAL DEVELOPMENTS, 1957-1963 *(Cyril Vahtrick)*

(This is the second of two very interesting articles laying down the history of the early years of OTC)

After the Olympic Games finished in Melbourne at the end of 1956, it had been expected that the new facilities provided at Doonside, Bringelly and the other stations would serve Australia's international traffic requirements well into the future. However, not only did traffic volumes not decline from the increased levels achieved during the Olympic games, but also high growth continued as well as demand for new services, very quickly saturating all the new capacity. This necessitated immediate planning for additional facilities.

While the HF radiotelephone service still had to rely on professional operators at each end to set up and monitor calls, there was a strongly increased demand for direct through connections to customers in the international telegraph (record) service. For larger users, the introduction of direct leased telegraph circuits (as low as quarter-speed) represented much greater convenience and also significant cost savings to both the customer and OTC.

There was, however, a much larger potential market for direct customer connection through the Telex service. This service had taken strong hold domestically in Europe and USA and was beginning to increase domestically in Australia. It was recognized that international telex over HF radio would require the best possible service quality that technology could offer.

In 1957, OTC installed the first automatic error correction equipment (ARQ). Without going too deeply into technicalities, the ARQ process employed a 7-unit code over the radio path instead of the universal 5-unit code used in teleprinters, with the alphabet constructed only from code combinations which had a 4/3 mark/space mix. Any departure from this mix would be registered as an error at the receiving end and a repeat request automatically transmitted back. This greatly reduced the error rate on telegraph signals over HF radio and rendered the service suitable for direct connection to the customer.

The original ARQ equipment was electro-mechanical, relying on cogs and wheels reminiscent of 19th century computer equipment. However, in the late 1950's, OTC started acquiring transistorised ARQ equipment which was far more compact than the original units and also easier to maintain. This type of equipment represented OTC's first venture into

equipment which was closely allied to computer technology.

As a short departure from this story, telex had developed so rapidly that it had outstripped progress being made at the International Telecommunications Union, (ITU), towards international standardization. In particular, the American TWX system operated at different speeds and was quite incompatible with European systems. Graham Gosewinckel, followed by Ralph Brown and later others from OTC played leading roles at the ITU in Geneva to create and agree international technical standards for HF radio transmission of telex with ARQ and also in the establishment of a universal telex numbering system.

At home, Bob Long battled with the PMG Department to convince them that international telex would not work satisfactorily without automatic "answer back". When they still disagreed on the basis of additional cost, Bob undertook that OTC would purchase and install the necessary modification kit on all customer machines. This caused the PMG to cave in and automatic "answer back" became a universal standard on all telex services.

These technological developments created something new for OTC to take into account. In the pre-OTC era, capacity limitations on both the submarine telegraph cable system and the older restricted HF radio systems had, de facto, created more or less a plateau for traffic volumes. Now suddenly, traffic growth was already pushing the greatly increased capacity of the newly installed HF radio equipment to its limit.

Therefore, notwithstanding plans for a trans-Pacific coaxial submarine telephone cable (as related in an earlier article), more immediate traffic pressures necessitated the acquisition of additional HF radio transmitting and receiving equipment. Orders were placed with AWA in 1959 for additional 30 kW transmitters and corresponding receivers. Once again it

was decided that this expansion should occur at Doonside and Bringelly. While space was available at Bringelly, a substantial addition of building space was needed at Doonside, resulting in a new wing being added to the building during 1960.

The new equipment was installed at Doonside and Bringelly in 1960 - 61 at the same time as the new COMPAC cable terminal building in Oxford Street Paddington was under construction. It is interesting to note that, while international radiotelephone traffic was growing at a very substantial rate, in 1962, just before the opening of the COMPAC cable, the annual paid minutes of Telex traffic just exceeded the Telephone paid minutes! To cope with this telex traffic, the telex exchange capacity at Spring Street was doubled in 1960. It was then moved to Paddington where plans were also put in hand to establish a new automatic telex exchange.

Looking at the position in retrospect, despite the predictions from some of OTC's financial people that telex and leased services would undermine our traditional telegram revenue base, natural expansion served to maintain telegram traffic levels almost unchanged while telex and leased services literally took off.

The years 1962-3 represented the peak of the HF radio era for Australia's international telecommunications. With the COMPAC submarine cable nearing completion, it was planned that at least the full capacity of the established HF radio system would be needed as emergency back-up once COMPAC was operational in 1963. While this was the situation when COMPAC was opened for service, the immediate explosion of telephone traffic on the cable indicated that the standby capacity of the HF facilities would not be able to provide other than a very limited service should the cable fail.

Therefore, notwithstanding that new cable systems represented an order of magnitude increase in capital expenditure over that experienced with HF radio, it was recognized that additional facilities of the same or equivalent level of capacity as COMPAC would be required. Two lines of planning were pursued.

Firstly, a separate submarine cable link was planned. This, with appropriate international

reciprocal agreements, would provide an alternative route. Already in 1961, an inaugural meeting had been held in Kuala Lumpur to agree in principle to establish a new cable from Australia to Asia, connecting to an American pacific cable system at Guam. This, of course was the SEACOM cable.

A second line of planning emerged around the increasing world attention to the possibility of communication via satellite. OTC was involved in exploratory Commonwealth meetings in this regard in 1961-2. Really definitive satellite plans were laid down at an international meeting between Europeans and USA/Canada in Rome early in 1964. OTC managed to wangle an invitation to attend this meeting and thus established credentials to carry on participating in meetings which quickly led to the establishment of INTELSAT. OTC was an inaugural Signatory to the INTELSAT interim agreement in August 1964.

With all this happening, the role of HF Radio, having reached a peak, was progressively reduced to links with small Pacific islands, etc. and to mobile CRS services. The trans Pacific telegraph cable was also closed in 1963, after the opening of COMPAC. (I don't have the date for the closure of the Indian Ocean cable).

There was one final spurt in HF technology when OTC provided high power transmitters, with receivers, at Perth operating into steerable antennas to provide communications links to an instrumented ship in the Indian Ocean (and later to an aircraft) relaying initially telex and then relatively high speed data for the "Project Mercury" and later the "Apollo" space projects. Satellite technology, of course, took over this role in 1966.

Those were the days!

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RAY HOOKWAY TELLS IT, "LIKE IT WAS!!"

Reading the note written by 'Scotty' Hamilton regarding Cooktown Radio reminded me of the first time I visited Darwin Radio on a maintenance trip.

I am sure that Scotty had been the VID OIC at some time before because his name appeared on various documents there. Henry you could possibly check this.) His note on one item amused me at the time and still brings a mental chuckle when I think of it.

AWA ran a very tight and parsimonious ship when it ran the CRS service and adopted practices which would now bring staff out onto the street in protest.

At Pennant Hills, the NSW International transmitting station technical staff were required, when they wanted say a 4BA screw, to visit a shed in the corner of the aerial farm and salvage the item from old equipment, stored there, to obtain it. Rumour has it that staff were once slow to fight a grass fire which broke out on the property until the said shed was well and truly alight, necessitating the purchase of a supply of essential small hardware.

Pencils were handed out one at a time and had to be used until it was impossible to hold them due to them becoming too short by constant sharpening. Staff were required to then put the pencil stub into a metal tube so that the last inch could be used after which they could obtain a new pencil in exchange for the old stump.

One can imagine how the head office bean counters regarded the provision of equipment spares? The Darwin cupboard reflected the company policy. The few large components held as spares were all second hand, having been used in the equipment until its performance had deteriorated to a low level. They still worked so apparently did not justify the term "dud". The *piece de resistance* at VID was a large, adjustable wire wound resistor with a label bearing the message in the manager's handwriting. " OK this end!

"Obviously a reader of Punch, who was reminded of the "Curates egg." -- Good in parts.

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DICK CHRISTOFFERSEN REMEMBERS

(A note from Dick received earlier this year)

A recent visit to Brisbane airport offered the opportunity of seeing Kingsford-Smith's wonderful aircraft, the "Southern Cross", in which he and his crew had made the first trans-Pacific crossing by aircraft in 1928. More recently I watched the television documentaries on the first flight of the Wright brothers in 1903 and then the withdrawal of Concorde from commercial service in 2003. These events set me to thinking about the developments in both telecommunications and aviation in those 100 years and how these had impacted on my own life,

As a baby in my father's arms, I was present when, in June, 1928, Kingsford-Smith's "Southern Cross" landed in the football playing fields at Suva, Fiji Islands. The telecommunications connection came from my father being employed at that time at the Post Office in Suva as a Telegraphist/Senior Postal Clerk.

In 1950, after two years at the Fanning Island cable station, I travelled by cargo vessel to Vancouver. Then, only 22 years after the "Southern Cross", I made my first trans-Pacific flight from Vancouver to Fiji via San Francisco, Honolulu and Canton Island on a DC6 of British Canadian Pacific Airways (B.C.P.A.). This was in far different conditions from those experienced by the "Southern Cross" crew, with our having dinner in Honolulu airport while the aircraft seats were converted to full length bunks for the over-night travel to Canton Island,. They were then converted back to seats on arrival at Canton Island before flying on to Nadi where the international airport was being developed from the air base established for the United States services during World War II. This travel took a couple of days while now a direct non-stop service between Los Angeles and Sydney takes about 14 hours. It is relevant that, in the

December 1949/January 1950 issue of Transit, it was announced that a one-way air-to-ground radiotelegraph service had been established in October, 1949, between Sydney Radio and Australian registered B.C.P.A. aircraft - this included the aircraft named "Adventure" on which I had travelled from Vancouver.

A further 27 years later in December, 1977, at the conclusion of a meeting of the Commonwealth Telecommunications Council in Singapore, I returned to London (where I was then based with the Commonwealth Telecommunications Bureau) on the inaugural Concorde service then being established jointly by Singapore Airlines and British Airways. This was quite an event before the flight with the celebrations at Singapore airport and on the flight itself - it reduced the then average travel time between Singapore and London by one half. For economic and political reasons there were only two further flights before the service was abandoned

Spanning these years I joined Cable and Wireless in Suva and saw service at the Suva and Fanning Island cable stations between 1945 and 1950 with the services provided on two submarine telegraph cables, one of which was laid before the 1903 flight of the Wright Brothers. In 1951 I joined O.T.C. as a Telegraphist at the Cottesloe cable station operating both the cable services and the high speed radio services from London which were then relayed through Colombo. After working with the stable and reliable cables, my memory was that operating the radio services was somewhat challenging at times !

At the end of 1953 I transferred to the OTC Head Office in Sydney as a base-grade Clerk in the Administrative Branch - between that date and 1978 when promoted to the position of Director (Administration), I performed a range of duties in the Administrative and International Arrangements Branches and was Secretary to the Commission for nearly eight years between 1968 and 1975. In this period my various duties necessitated travel both within and beyond Australia - in all cases this was by air

In 1975 I transferred to London for what was to be a three year secondment with the

Commonwealth Telecommunications Bureau (CTB) but I was recalled to Sydney after serving only two years of that secondment. This necessitated extensive travel for meetings in the various Commonwealth countries. The recall from the C.T.B. was to take up the position of Director (Administration) referred to above.

However, primarily for personal reasons, in 1980 I left OTC to accept the offer of a position in London with the International Maritime Satellite Organisation (INMARSAT) which had been established in 1979 to develop satellite communications for both maritime and aviation purposes. As one of the first to join INMARSAT it was both interesting and challenging to see the development of these services; Again, this involved extensive travel away from London for meetings in the member countries,

Over the above years the development of telecommunications continued, in particular, with the submarine telephone cables and satellites. Aviation development also continued with faster and larger commercial aircraft with more sophisticated communications equipment To have, over my working life, commenced with the operation of submarine telegraph cables and concluded with the development of satellites for maritime and aviation purposes, has been very satisfying,

In 1989 I elected to retire from INMARSAT and now live with my wife Joanna in a small and remote fishing/sheep farming community in the far north-west of Scotland - being born in Fiji it is difficult to find two places further apart nor with such different climates and cultures! However I find this life suits me perfectly, with no desire to return to live either in Fiji or Australia. My telecommunications activities are now confined to the telephone and minimal use of the internet and E-mail services. However, I continue to be a customer of the airline services with regular travel to Australia to maintain contact with my four daughters and grand children.

TIME GENTLEMEN PLEASE!!

An interesting incident occurred when we moved from York St to the old Eastern Extension building in Spring St. Every morning at 47 York St, the Senior Technician would adjust the time on the master clock in the operating room. The clock was a marvellous piece of technology, a beautifully crafted, battery driven pendulum clock in a polished wood glass-fronted cabinet. The STO would spend considerable time to set it, using a precision stop watch. No Atomic or even crystal controlled clocks for AWA or the early OTC.

When the move was made, the clock was transferred to Spring St and re-installed. Of course every clock in the 13 storey AWA building, including those in the 2CH studios on the 11th floor, immediately stopped and I understand it took several days for AWA to find out why!!

Not a good record for a communications organisation operating on a shoestring!!!

COLOSSUS : -- THE WORLD'S FIRST COMPUTER? *(Erik Bachman)*

(This paper is based on work done as a 'behind the scenes' volunteer at the Powerhouse Museum. Thanks to the Museum Management for giving permission to publish it in the OTVA Newsletter.)

Due to its length I have split it over two issues of the Newsletter, but it is a very interesting read

The Powerhouse Museum has recently acquired a small number of the basic components used in the British World War II code-breaking computer, the Colossus machine. They are standard British Post Office telephone exchange components from that era, a uniselector, two BPO relays, and two electronic valves (EF36 and 37).

The Colossus Project was initiated in England during the early 1940s to provide an efficient method of breaking the German secret Lorenz code, which was used between the highest authorities in Berlin and the headquarters of the theatre commanders of army groups throughout

Europe, i.e., including messages between Hitler and his generals, while operational and tactical communication within individual commands was done within the Enigma network, which used Morse code. Known in Britain as the Fish cyphers, the more sophisticated Lorenz network was extensive, reaching 26 links by 1944.

Bletchley Park.

The British Code Cypher Centre was situated at Bletchley Park in Buckinghamshire northwest of London. Here, thousands of people were working round the clock during World War II, decoding and analysing German military messages. Both the Enigma code and the more complex Lorenz code were broken at Bletchley Park. Despite the number of people involved, the German High Command never realised that their security had been compromised, believing that their codes were unbreakable.

The Baudot Code.

Teleprinters use a 5-unit binary telegraph code known as the Baudot code, which was adopted internationally in 1930, and which had replaced the Morse code between World Wars I and II. Using binary elements each pulse can take either of two conditions, called positive or negative, on or off, mark or space. The Baudot code is not related to the Morse telegraph code, where the characters vary in length from one single dot (letter E) to five dashes (figure 0). In the Baudot code each character has five equal-length elements, allowing for 2 to the power of 5, i.e., 32 different characters, covering the 26 letters of the alphabet plus six characters to control the non-printing functions of the teleprinter (letter shift, figure shift, carriage return, line feed, work space and all space; the latter would be sent to sound an alarm, if the incoming line went dead).

The Lorenz Code.

The German Lorenz Company developed a secret teleprinter (*Geheimfernschreiber*) with twelve encoding rotors (also called wheels). The operator would first type his message on the keyboard of a conventional teleprinter, resulting in a clear and understandable message, which is known as plaintext. Subsequent encryption was carried out in the Lorenz machine, the SZ40 or 42. The five elements of each character were passed through the first set of five rotors, each element through one rotor, and they were either modified or left unchanged, depending on whether or not a pin on the circumference of the rotor at that point was active or inactive. A similar process took place as the message passed through the second set of rotors. The rotors all had different numbers of teeth, which were set up to the pattern specified for the particular day, and all could be rotated individually to any required start position. The first set of rotors advanced one tooth for every character, and two more rotors of a similar type controlled the stepping of the second set of five rotors, which was called the motor rotors. The machine worked with teleprinter punched hole paper tape.

The encoding was done by adding a pseudo-random obscuring message called a key, element by element, to the plaintext, using the Modulo 2 logic known as XOR (Exclusive OR, or binary addition without carry), invented by the American Gilbert Vernam from Bell Laboratories in 1918.

Modulo 2

In Modulo 2, using 1 and 0 for the binary elements, the 'truth table' is:

$$1 + 1 = 0 \qquad 0 + 0 = 0 \qquad 1 + 0 = 1 \qquad 0 + 1 = 1$$

To explain, if an element in the message is 1 and the key element is 1, the encoded element will be

$1 + 1 = 0$; on reception the key element of 1 is again added, i.e., $0 + 1 = 1$ (the original element). If the key element were 0, the encoding element would be $1 + 0 = 1$, and on reception $1 + 0 = 1$. If the initial message element were 0 and the key element 1, the encoded element would be $0 + 1 = 1$, and on reception $1 + 1 = 0$; with a key element of 0 the encoding would give $0 + 0 = 0$, and on reception $0 + 0 = 0$, i.e., in each case, decoding at reception with the key message results in the original message. In summary, by adding the obscuring key message to the received encoded

message, the plaintext message can be read directly.

If the key message had been truly random, it would not have been possible to break the code, but fortunately for the code-breakers the sequence was a repeated pseudo-random sequence, generated electro-mechanically; therefore, if this sequence could be identified, the code could be broken.

Breaking the Code.

The procedure of adding the key message on reception makes for a very simple encryption method, but it has the weakness that if the enemy adds two received messages, $Z1$ and $Z2$, which use the same key K, say

$Z1 = A + K$, and $Z2 = B + K$, the added received messages would be:

$A + K + B + K = A + B$, where the two keys cancel out.

If the two messages are fairly simple, the enemy may be able to work them both out from the received $A + B$ message.

Even worse, if the sender were to repeat the same message, the enemy would receive:

$A + K + A + K = A + A$, i.e., the original message, and that is exactly how the Lorenz code was cracked. A German operator in Vienna had nearly finished sending a long message on the *Wehrmacht* radio-link to Athens, when the receiver radioed back to say that he had not received the message properly. The operator then did something which was highly illegal: he reset the machine to the same start position and repeated the message, albeit with a few abbreviations, so two nearly identical messages were intercepted at Bletchley Park.

This enabled the code breakers to work out the key and after two months of hard work the complete structure of the Lorenz machine was known. This did not mean, however, that Lorenz messages could now be easily decoded; in practice each

message took several weeks to decode, at which time they were generally not important any longer.

(To be continued in the next issue. If you haven't renewed your subscription to OTVA, you may miss out!!)

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Following up the recommendation of Dennis Grant, your Editor sought and was able to purchase a copy of the book "A Thread across the Ocean". It is quite interesting but other pressures are preventing me from settling down to read it. The two DVD set of the "Seven Wonders of the Industrial World" which includes the story of the Great Eastern is now available.

SOME THOUGHTS FROM YOUR PRESIDENT.

The articles published in this issue, show what can be done with a little bit of effort by our members and they make our publication a pleasure to read. As well, it records a small portion of our history of which little is recorded. Our sincere thanks to them for their efforts. We look to our far off compatriots in West Australia, South Australia, Victoria or where ever for some of their history and folk lore. So please get your fickle fingers to the keyboard or whatever and let us hear from you!! We are always on the look-out for more!

To Joe Collister and Jeff Hinwood, also got a vote of thanks for our upgraded web-site. Robert Brand's "Exotc.com " web site is also worth a look and both are linked so there is no excuse for not perusing both.!

Finally, we come to our Editor, whose enthusiasm for the position knows no bounds and I well remember him joining OTC in December '63. At that time the OTC library was the haunt of all our cadet engineers of that period! Oh. You are wondering why? That would be telling!! Ah, what memories fellows??

Tales from the Plaza Building.

Your President remembers!

In 1964 Engineering, Planning , the OTC Library and Drawing office all moved from Spring Street to "The Plaza Building" in Pitt Street, opposite Spring Street. Bob Long (AGMT) and Dave Abercrombie later our chief

Engineer were on 13th Floor along with the Drawing Office and staff.. Planning branch with Cyril Vahtrick and Graham Gosewinckel and Peter Meulman's Seacom group were on the 12th floor. One Eng. branch staff member (now an overseas resident) used to ride his motor scooter to work and park same under the fire stairs (which annoyed the building manager greatly). This antagonism was further heightened by his inability to trap the owner parking his scooter. All of that era will remember his varying starting times.

At Xmas that year, the AGMT and C.E. decided we would have a branch Xmas party at a restaurant in King St to which we all went. Shortly after the party got a "Go on," the AGMT did a head count and to his dismay realised "no one was " back at the ranch". He decided that 2 people would have to return so those selected had to draw matches to decide who went. Yours truly and our Lambretta rider drew the 2 short ones and off we went, after the pudding! Up King St,. astride the mighty Lambretta! The traffic cop at the corner of King and George streets stopped us and our noble rider pulled up close and wished him "A Merry Xmas" in a cloud of alcoholic fumes! "Have you been drinking sir?" asked the young policeman. "No— oh" said my rider. "On your way" he then said. At this point the rider let out the clutch and ran over his foot, luckily protected by a heavy boot. "Pass Out" screamed the policeman, "before your Christmas is ruined". So we wove our way through the traffic via George Street to "The Plaza" singing "Jingle Bells!"

A Very Merry Christmas to "The Bone"

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Every day about 2.00 PM, the lifts in the Plaza building would be jam packed with staff returning to work. On this particular day yours truly was last in and asked by Norm Alderson, our genial clerical guru, if I had heard any good jokes. As the Planning Branch had just started up and

was the topic of the time, I asked 'Does anyone know the difference between OTC and Wirth's Circus. "No" was the cry! "Well there isn't any." I replied' Only Wirth's plays to a programme" Much laughter ensued until we reached floor 13 where I, being a gentleman, held the door open for all left in the lift. Guess who was last out? Bob Long, who invited me to join him in his office to receive a 15 minute tongue lashing about the need for planning, the good work Cyril and Graham were doing and no need for the jokes!

And I lasted to age 65?

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A note from our brethren in New Zealand

VETERAN CABLEMEN'S ASSN NEW ZEALAND

Re: OTVA Newsletter Aug 04

Thank you indeed for another very interesting newsletter. It is great to be able to maintain this connection with you. Again I have passed my copy to our Chairman, David Thompson, in Auckland.

It is interesting to read of the proposal to mark the shore end location of Pacific Cables at Bondi. I am sure that our Chairman will advise members of this. If it should eventuate, it would be good to have a representative there. I recall that only a few years ago, when the Southern Cross Network cable came ashore in Auckland, a number of our fellows were on the beach as observers.....'skilled observers', of course! In that case it was on Takapuna Beach on Auckland's North Shore. I have an idea that a plaque is already in place there to commemorate the various Pacific cables that came ashore there. No doubt David would know.

Enclosed is a brief item for your VALE section concerning Brian Morrell who died recently and who featured in last issue. We knew Brian well and he served initially with our NZ group in TELCOM..

Otherwise I don't have any contribution for you unless I start digging into some history......maybe!

You mentioned your days of the radio era and you implied that you cruised along at 25 wpm. I recall struggling at 22 wpm although in our field

the morse was all machine transmitted tape. I wonder how long it would take us now to get back anywhere near the speeds on the keys of those days! Personally I am far more comfortable on a keyboard with a computer......but even that started in the training school days in Auckland.

Thank you all again for your kindness in helping us to keep touch.

Ray Connolly

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VALE: BRIAN MORRELL.

Brian's passing was recorded in the August issue with appropriate reference to his service at Cottesloe, WA, with OTC & with PMG. The New Zealand group knew Brian well from our early days and we offer this small tribute and reminiscence to your Newsletter.

Brian joined Cable & Wireless from school and trained in Adelaide in 1943 under Harry Colliver. With others of the WA group, he travelled to Bombay in May 1945 then moving on to Colombo, Ceylon. Here he settled in with the main Australian/New Zealand contingent of TELCOM, the Cable & Wireless Ltd unit embedded with British Army. In the planned advance this group was to reopen and to operate the various cable stations of South East Asia. The dropping of the bombs in August '45 accelerated this work.

In Brian's case his posting was rather more active than most. He found himself in Batavia (Jakarta) in mid-November '45, in the   ,. ..,-middle of the Indonesian war of Independence. He survived and seemed to thrive on the experience. November '46 saw him back in Perth and working at the Cottesloe cable station until it closed in 1966.

One of Brian's interests was in train travel. About 1989 he and a friend travelled Calcutta to Bombay on Indian Railways. In any of his travels Brian always looked for the opportunity to use rail. He visited New Zealand in 1988 for a TELCOM reunion

and we recall that his sense of humour had not diminished over those years. Even following his stroke Brian continued to keep tough with his Kiwi mates.

Autumn Social Function

Please Note in your diary that our first function for 2005 will be held on;

Friday 4th March 2005 12.00 Noon At The CTA Club Martin Place Sydney.

Cost to be advised.