OTVA NEWSLETTER

Overseas Telecommunications Veterans Association (Australia)
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THE OVERHEADS

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Coming Events

Next Sydney Event

When;: **Friday 4th March** at **Noon**

Where: **CTA Club** , Martin Place Sydney

Cost: :$20.00

R.S.V.P. by **Monday 28th February** to:

David Richardson, phone.(02)9487 1985
email: <d_s_Richardson@yahoo.com.au>,

Eamon Fitzpatrick: phone:9743 3806

Henry Cranfield: email
<henrycra@tpg.com.au>

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Other dates for the Diary

AGM is set for the **CTA Club** on Friday, 17 June 2005 at 12.00 noon.

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Our Xmas function is at **Mandarin Club** Goulburn Street on **THURSDAY**, 24th November at Noon.

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Put the dates in your diary and work around them!! Costs for both functions to be advised.

****

ADMINISTRATION

(That dreaded word!)

Please ensure that Will Whyte has your correct address and latest email address.

THIS WAS THE BIG ONE

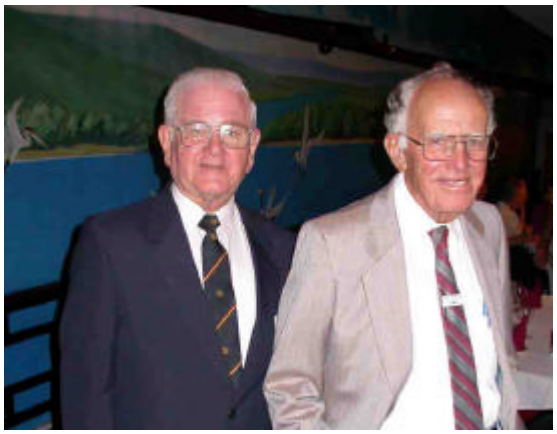
November 26 at the Mandarin Club

Our End-of-Year Get Together was on **Friday 26 November** in the Mandarin Club. Enjoyed by 76 members and guests, it was as usual far too short as judged by the number who had to be ejected at the end.

Numbers were down so the 2005 function will be on THURSDAY 24 November, so the grandparents can avoid all the school functions!!!

A few photos highlight the frivolity!

Allan Hennessy, Tom Barker sample the food



Trevor Thatcher & John Hodgson demonstrate correct dress

Brian Nell & Stuart Pengilley

The mob

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NOTES FROM HARRY STONE ABOUT DOINGS IN ADELAIDE: --

Our Xmas reunion was held at the usual venue of the old McLaren Vale Pub on Thursday 25th November from 12pm onwards and was attended by six ex-OTC stalwarts, namely Dave Herbert (Past President), Dick Inwood, Ern Barrett, John McGregor, Paddy Wilkinson and Harry Stone. Apologies were received from Max Lang who had to attend a relative's wedding in Perth held on the same day. Max's brother, Tom Lang is still alive and kicking in Melbourne. Max was recently made a life member of our Vets Association. John McGregor has sold his house in McLaren Vale and at the moment is residing in the local caravan park prior to the completion of a new retirement estate being built in the same area, so he will still be able to front up for any of our future meetings.

An old Beam Wireless veteran Ross Herrington and his good wife Margaret are still alive and kicking and are living at Somerset Park near Glenelg. I drive down every fortnight to spend a very pleasant weekend with them. We go out for lunch on Saturday to the Morphett Arms Hotel (local Adelaide blue rinse joint) returning to their home to enjoy numerous Victorian Bitter ales and exchange many yarns re Beam Wireless/ OTCA/ Telstra days. The many characters who we encountered and worked with raise many a chuckle . We always come to the conclusion of how fortunate we both were to experience those salad days which unfortunately are now unavailable to those who follow in our footsteps (in Communications),

permanence in careers is a dirty word these days, it seems to be regarded as crime.

We are all still in fairly good health, I keep a regular daily sked on the "Ham" band frequency 14150 khz at 0015gmt and enjoy the chitchat of some of my old workmates, Geoff Warner, VK2HJ, now aged 90 years and still going strong, Blue Easterling, VK4BBL, Ron Cocker, VK6FD, who is at this time undergoing chemotherapy for a tongue cancer, which seems to be successful, Sean Leahy VK6BDB had a heart problem which is ok and under control now, Deane Laws, VK4ALN, still going strong, John Lawler, VK2ALJ and Ellis Watts, VK2MR. We have all disposed of our various ladders, stepladders etc, as we've all found out how dangerous they are! A comfortable chair in front of our various "ham" rigs or the TV is more to our liking these days.

We remaining members of the SA branch of the OTVA send our fraternal greetings to our brothers scattered around Aussie and wish you all a very happy Xmas and a healthy new year.. 73s Harry Stone (VK5EC) Sec/Treas SA diddlydahdidah (SK)

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OTVA (WA)

Notes from Derek Walker of the 31st AGM, held at Gnangara, 23 Nov 2004

In the absence of President Des Kinnersley, recuperating after a prostate operation, Secretary Derek Walker took the chair. Present were WA Veterans Jim Bairstow, Tore Boe, Kevin Bourke, Jim Congdon, Paul Cooper, Heb Farrar, Allan Headley, Kevin Hills, Reg Jones, John Knight, Sean Leahy, Tom McKnight, Ray Parkinson, Wal Perryman, Brent Schofield, Bob Smallwood, Kommer Springvloed, Tom Swarbrick, and Graham Watts.

Apologies from Ron Cocker, Geoff Goddard, Fred James, Des Kinnersley, Barry O'Keeffe, Val Parker, Rod Pernich, Roger Pugsley, Ken True, Bernd Wendpaap and Barry Whittle.

One minute's silence was observed for Doug Mason and Brian Morrell.

The Minutes of the 30th AGM were approved and the Sec/Treasurer's Report and Financial Statement were endorsed.

During the election of Officers the positions of President and Sec/Treasurer were declared vacant and nominations invited. Incredibly, the expected rush of eager applicants to fill these prized positions did not eventuate and Des Kinnersley and Derek Walker were re-elected unopposed.

Other business: Fraternal greetings from Harry Stone in South Australia. Veteran Ron Cocker was in hospital undergoing treatment for cancer and the acting President invited all his ex-workmates to sign a get-well card to be sent to him. (Incidentally, this meeting was the first one Ron had ever missed since his attendance at the original formation of the WA branch.)

The next meeting will be on Tuesday 22nd November 2005

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More from the Denis Grant Notebook.
(While there is enough material for a few more issues I am sure other have similar stories. Write them down and send them to me, please. Ed.)

ERRANT SATELLITE.

(Dennis Grant)

Moree beavered away working on one Intelsat II (2) satellite, which with all the carriers, loaded down the on board "quasi linear" TWT transmitters and also the beacon powers. Hence it was always critical to accurately maintain all transmit powers to the satellite so that the quasi linear design allowed the satellite to transmit sufficient power to all receive sites to maintain good signal to noise and allow for different standard antennas. Consider also that the Moree antenna

beamwidth was just 8/100 ths of one degree at the 3 db points at the 4 Ghz receiving frequency. *(A circle 2800km in dia at operating height but only 560km at 7000km. Ed)*

One of the tricks we learned early on was to keep the manual position controls zeroed to the current "auto track" position so that in the event of a track off a quick select of manual track and you would have the bird back close enough to re select auto and recover full signal strength. It therefore came as somewhat of a shock when one evening the antenna tracked off the operational satellite then stopped looking at a blank night sky. The guys on shift had been prudent, selected manual and, whew, back to normal. Duly noted in the log and much scratching of heads. Imagine the consternation when the next night four minutes earlier the antenna repeated its performance and tracked off again.

Same recovery, same logging, same head scratching. So next night at t minus four minutes "put the brakes on and let's see if we see any differences in the received signal as per the Spectrum Analyzer". And so it was that on this occasion that it was observed that all the carriers and particularly the beacons jumped by about 10 Db. How could this be? The only explanation was (you guessed it) the satellite in its elliptical orbit. The unloaded satellite having much higher levels of beacon power would "capture" the tracking receivers at Moree and the antenna would dutifully try to track this signal. As it was slow it could only do this for a few moments by which time it was off the working satellite and looking at a blank sky.

Next night Rod Eastment and I were on and Rod suggested we try to measure the altitude by looping back an audio channel and sending bursts of tone during the transit. By setting two CRO traces running at the time of the tone burst we could check first that the operating satellite was 230 milliseconds distant and then the errant satellite was about 50 milliseconds distant. This equated to about 7000 kilometres altitude as opposed to 35000 kilometres for the stationary satellite. We asked some questions of the Intelsat TOC and they did confirm that the errant satellite was about where we said it was but of course were surprised to learn that it had been transiting our incredibly narrow antenna beam.

FLOODING.

(Dennis Grant)

Moree earth station was built on a hill. You might think that strange but it was the highest point on the several hundred acres that OTC purchased. It was however a small hill only about one foot higher than the rest of the country around. It was not high enough however and in the four years I was there we had to sandbag the entire station twice to keep the flood waters out. After the second round the firm decided that it would be prudent to build a retaining wall around the entire complex. This was then grassed and required constant mowing, which was managed on an ongoing basis by a herd of sheep, which provided a goodly supply of meat for the team.

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NOTES FROM BOB PEARSON

I feel the need to at least try to record some of the events in my times at OTC in the late 60's early 70's.

The articles written recently by Cyril Vahtrick and Dennis Grant have spurred me forward, as has my memory of a couple of idle conversations with Will Whyte about 4 years ago, that I should put pen to paper.

REMEMBER WHATEVER YOU WISH, MAY COME TRUE.

I was one of those OTC technician's in training who went through the DCA (Dept of Civil Aviation) system for 4 years. We interspersed our formal classroom training with ever longer (as years went by) periods of field training.

For my part, the majority of this field training in the first 3 years was with the installation (works) crews on the various floors at Paddington Terminal.

What a great introduction to the real world for an impressionable 17 -18 year old that was. It took me years to undo some of social rules learnt, in particular to trust and accept at face value anything said by anyone based permanently in head office.

My induction and regular visits with my workmates to the "London Tavern" and the other watering holes about Paddo and my staple diet from the Paddo Pie Shoppe are probably the basis for my larger persona of later years. My work ethic of work hard and play harder was certainly born in me in these years. It is amazing in retrospect that from this "works" based grounding and real life induction, I spent the rest of my working life in OTC as an "ops mungo".

Now to the story; it is mid year 1969, mid winter in Sydney, I am sent to Head Office 7th Floor for field training, to Engineering Branch to report to the Works Manager (ex president of OTVA Tom) actually, so I front up on a cold and wet Monday morning, after a bus ride in from my single room flat at Coogee. Not sure of what I will be doing but sure it would be boring, unimportant and tedious as all head office jobs that trainees got in those days were reported to be.

To my surprise I was welcomed, told what I was to do and had the work I was to do put into context. On previous field training jobs I had worked on the 3rd Floor Telex Exchange as a "jumper jockey" having learnt the art of terminating and running jumpers to the satisfaction of some of the old hands. Somehow the word must have got back into town that this kid was ok.

Anyway, I spent the next 6 weeks or so making up a multi- volume book of Jumper Sheets for an MDF, from many large circuit drawings, for the Port Moresby Town Office. One afternoon late in the field training spell I passed a bit of a whinge to all and sundry in ear shot that this bloody job would be easier actually doing the jumpering than just writing them down. As I said in the title be careful what you wish for!!

I went back to DCA at Waverton to do the last term of third year and the annual examinations, in effect the last major studies and exams as a trainee tech. The 4th Year was in name only with two four-week DCA training school sessions on Nav-Aids and Radar theory to go. In that last year I did the Satellite Course along with a 3 month spell of field training in Ceduna, but that's another story.

So here I am back at DCA in the midst of exams in the final week of September, and I get a very unusual summons to go into head office at the end of today's exam. We saw the training guys about once or twice a year in those days and usually only if we were not performing with our theory or performing too well or inappropriately elsewhere. Maybe they had heard I had a part-time job as a waiter in the lounge at the Coogee Bay Hotel 3 nights a week, who knows, but it can't be good!

So in I go to see Ray Baty, Brian Woods and Joe Collister to learn of my fate. You can imagine my surprise when out of the blue I was offered 3 months field training in Port Moresby, PNG with a works team starting in two weeks.

Somehow I got my self organised, paid my corner store debts, flat rent in advance, gave notice at the hotel, let the mates know I would be away and the flat was no longer available for their beachside conquests.

In 1969 air travel was special, I had bought a new suit etc with the advanced TA, but that was the last time I wore it till my cousins wedding the following year. Port Moresby in October just before the onset of the wet, hits you like a big hot wet blanket as soon as the aircraft doors open, and as the man with the spray cans walks down the aisle you instantly sweat up and saturate the suit and anything else you are holding.

Customs in PNG in those days was interesting, the main concern was to find and confiscate all gambling gear, I lost a set of playing cards but the pocket knife, waiters friend, Stanley knife and assorted tools etc all ok.

My pocket calculator (a bamboo framed slide rule) froze for the duration, it loosened up after drying out next year.

So to town, to check into the motel room that was to be home for the next 3 months. A ride in the "works transit van", in the front seat for the first and only time while in Moresby, from Jackson Strip, also known as 7 Mile, and the site of the OTC receiver station (more on it later).

I travelled past 4 Mile, Boroko village, and the OTC transmitters, down 3 Mile Hill and past Koki village and into Port Moresby township.

We worked six days a week, about 10 - 12 hours a day on this job having Sundays off, and each Sunday we would get out and around to see a bit of the local sights. Saturday nights we would go to the Aviat Club to see a movie (16mm projected on to a sheet in the front yard) or to a social dance arranged about once every 3- 4 weeks.

We were a rare commodity in those days single, white, relatively sober and not yet turned troppo. Not politically correct these days but remember it's 1969. The standard frame of reference for an expat at that time was how many months you were into your 21 month term in PNG.

A couple of the more bizarre happenings:
- The search for the ultimate Dry Martini, found on a late night in early November before the onset of the wet after weeks of research. Head of research George B a Southern Rhodesian fellow on the works crew. I was his able assistant for part of this study.

Pour 2 oz of quality English Gin into a martini glass. Move to the other side of the room and open a fresh bottle of Dry Vermouth and leave to stand on a shelf.

Return to Martini Glass, add a Twist of Lime to the side of the Glass. Hold the Glass for about 30 seconds, allowing the vapour from the freshly opened Vermouth to mingle with the Gin and Lime. Consume at your leisure.

Repeat above as necessary for sedative effect as required.

Warning: Research was not to be undertaken within a day of having the weekly Malaria Tablets. Illness beyond description.

Visiting the receivers at Jackson's strip.

Having a rummage through the wreckage of various wrecked aircraft from WW2 dumped on the backside of the airfield and finding a few discharged 20 mm canon shells and many .303 cases.

Learning about the yanks and their planes that crashed loaded with soldiers.

Seeing the TOP 20 equipment before its replacement by the Lincompex that was part of the Work Job we were doing.

Peering into the jungle on the edge of the airstrip up into the hills and thinking back to WW2 and other kids my age who had such a bad time of it here back then.

Going to Hanaubada Village as a guest of Mia Mia and seeing first hand village life for a Papuan family, talking about expectations for his kids. Seeing how living in a pole house out on the water worked. Very different worlds for two people who worked together on the same job.

Setting up the rags around the base of the ladder each day to catch my sweat while standing and jumpering on the main frame. At the same time, Bob Taylor trying with various level of success to commission the Hasler ToR mux, operating it for a while before it had to be turned off to prevent over temperature prior to equipment room air-conditioning being installed.

Walking about at night to get to or from the town. (okay any night except government pay night in those days)

Hitching a ride on the "boi trucks" on Sunday afternoon, definitely not a thing to do anytime from 1971 onwards.

Coming back to the motel for dinner each night and being seated as a group in the corner with the fan blowing on us to keep our odours away from the rest of the guests. We got used to it, at least we could have a good feed each night.

The bets we made among ourselves as the Nickel boom happened how high would Poseidon go.

The Melbourne Cup, the sweep, the late scratching of the favourite Big Philou,

The head office engineer who called Bill Darby and insisted on talking to him throughout the call of the race.

The wet season eventually started, amazing how quickly you adjust life to accommodate a few hours of 8-10 inches of rain each night.

Other memories include the Yank who kept a Papuan Black snake in his shower until it was discovered by the house boys, they literally jumped off the second floor to the hillside to get away from the room.

Picking up local language with the realisation that after a couple of months that I actually understood most of the "local" radio programs broadcast in pidgin.

Time went very quickly, and the week before Christmas, I came back to Sydney. Ever since, I have had a greater understanding of the way you feel on an "away works team" whenever they were at the various places I worked.

Not sure that OTC executives ever fully realised the contributions made to the organisation by the "works teams" and the places they went and worked. Almost without exception, successfully built whatever it was needed to be built on time and on budget. I won't mention names here because I am sure to leave a couple out.

Lastly, I want to acknowledge the work done in the 70's & 80's by OTC works guys in our hemisphere, the core of which grew out of the guys I worked with in the late 60's and very early 70's.

Satellite station projects in particular, in Moree, Ceduna and Carnarvon, South East Asia, Antarctica, Cocos and Christmas Is.

Also a couple of Ops guys who followed up to do the commissioning.

Great times and great memories. Thanks.

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PHOTO FROM MOROCCO

This is a bit of editorial indulgence for el Presidente, Tom Barker and the late Joe Anderson (who is fondly remembered!), who told many stories of their experiences on open wire routes. It is of a railway pole route in Morocco showing how they economized on crossarms by having insulators fixed under as well as on top of the arm. I think there are transpositions at the top left!

Morocco is a country of contrasts, While much of the scenery is reminiscent of biblical times, even old greybeards are seen wandering along, talking on their mobile phones!

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Colossus Part 2

This is the second part of a very interesting article by Erik Bachmann on the Colossus code breaking computers used in Bletchley Park during WWII. Part 1 was in the November Newsletter.

The creation of Colossus.

Eventually Max Newman, a mathematician from Bletchley Park, came up with a

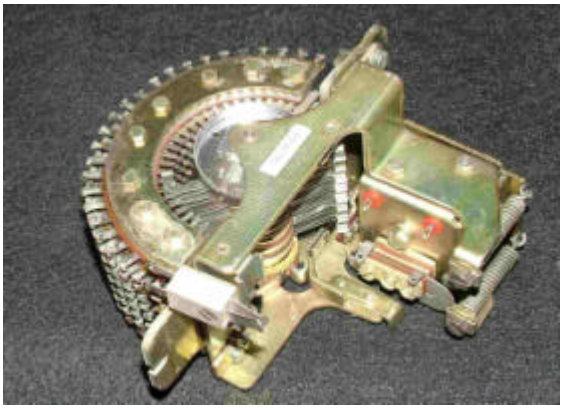
method to mechanise the analysis of the Lorenz code, relying on combining two inputs, one with the encrypted message, the other with the pseudo-random key message, but it was generally agreed that it would be impossible to implement the method in practice. After ten months of design work, however, Tommy Flowers, an electronic engineer at the British Post Office Research Laboratories at Dollis Hill, North London, was able to implement hardware for this purpose. In the early 1930s Flowers had experimented with the use of electronic valves for telephone switching, resulting in an operational toll dialling system in 1935. In the early 1940s he headed a switching group, consisting of 10 graduate engineers and a total of 50 staff; he delivered the prototype of the so-called Colossus machine to Bletchley Park in December 1943.

The first version of Colossus had about 1000 hard electronic valves and 500 gas-filled valves, while later production models had about 2,500 valves. (this was many years before solid state electronics, and these valve quantities were considerably in excess of anything else that had been tried in Britain or the USA for advanced purposes such as radar or logic calculations). Colossus was built in eight racks, 2.3 m tall, arranged in two bays plus a paper tape reader and a tape handler.

The power packs were 50 Volt units stacked up in series to give +200 to -150 Volts.

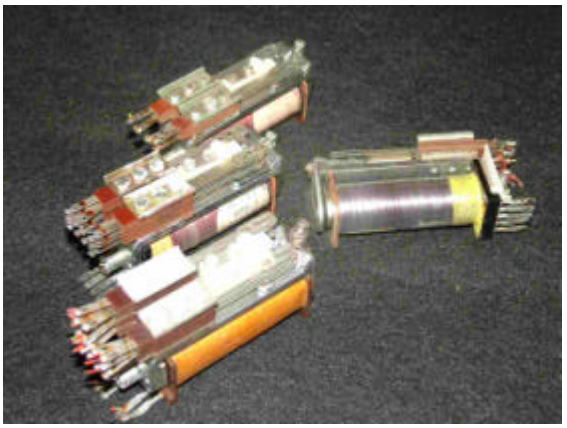
The Colossus components obtained by the Powerhouse Museum are standard B.P.O. telephone exchange components:

Uniselector 2/52 A - S61/1,



A pristine 8 x 25 uniselector

Relays: 3000 type, coil, 15 SCO445, (2 kohm + 5 kohm),



Some 3000 type relays

Valves EF36 and EF37 by Mullard.

At the end of the war ten Colossus machines were in operation at Bletchley Park.

Operation.

Two distinct processes had to be carried out on the encrypted messages, the first to work out the encryption pattern which had been added to the plain text, and the second to strip that pattern off to reveal the plain text. The first process was carried out on the Colossus, and the second on a machine called the Tunny, which was in effect an electrical version of the Lorenz machine. Like the Colossus, the Tunny was designed and built at the Post Office Research Laboratories.

The Lorenz machine rotor patterns were changed at intervals and once found would apply to all intercepts of that link during the period, while the starting positions were changed for every transmission and therefore had to be broken each time. Colossus read teleprinter characters in Baudot code from a paper tape loop, namely the characters of the intercepted cipher text which had been received by radio. These were combined with the pseudo-random message electronically.

Broadly, the principle of Colossus was to count throughout the text the number of times that some Boolean function between

the text and the generated rotor patterns had either a true or false result. At the end of text the count left on the counter circuits was dumped onto relays before being printed on the typewriter during the next read through the text.

With the aid of Colossus, the highly skilled cryptographers would determine the tooth patterns and starting positions of all twelve rotors on the Lorenz machine. This information plus the intercepted message tape would be given to WRN-operators (Women's Royal Navy), who set up a Tunny machine, which stripped the encryption pattern off the message, leaving the plain text.

The Colossi were maintained by British Post Office personnel who had telephone exchange maintenance experience so very high levels of reliability were achieved. Most problems were caused by the tape reader and the typewriter, not by the valves. This was probably due to the adopted design philosophy, to build in safety factors, allowing components with characteristics which could drift from their nominal values; for example, it was difficult to get accurate resistors, as the normal pre-war source of supply was from Germany! It has also been claimed that valve holders were more of a problem than the valves themselves, so some critical valves were wired in directly. Other problems were due to the photo-electric cells, and to the high-speed paper tape, the edge of which would saw through the hardened steel tape guides.

Design Considerations.

In order to break the Lorenz codes in a reasonable time, the cypher text had to be repeatedly scanned at very high speed, and rather than using paper tape to store the pseudo-random key and adding two paper tape sequences, Flowers took the original step to replicate the key message electronically, using a large array of valves, so that only one input data tape would be required. This avoided the problem of synchronising two fast tapes, and importantly, using hard vacuum photocells to optically read the holes in the paper tape, it enabled a huge increase in operational speed to 5,000 characters per second, relative to earlier mechanical designs. (Early models used two synchronised paper tapes; in practice such designs were generally capable of continuous speeds of the order of only 200 characters per second).

In order that large numbers of options could be tested in a reasonable time, much thought went into maximising the speed. By a combination of parallel operation and short term memory, the operational speed was increased to an incredible 25,000 characters per second in the Mark II production machines, even though the clock rate remained unchanged at 5,000 characters per second. At this speed the time interval between sprocket holes is 200 microseconds, in which time Colossus could carry out 100 Boolean calculations on each of five tape channels.

The fast optical tape reader read not only the five bits of data, but also the paper tape sprocket holes, resulting in signals which were used to generate clock pulses to synchronise the computer.

Broadly, the principle of Colossus was to count throughout the looped message tape the number of times that some Boolean function between this text and the rotor pattern had either a true or a false result. At the end of the text the count was printed out and the next loop was carried out.

In summary, the implementation of Colossus incorporated a number of innovative electronic features:

- conditional branching logic,
- electronic storage registers changeable by an automatically controlled sequence of operations,
- logic functions preset by patch panels or switches,
- variable programming,
- calculation of complicated Boolean functions, using valve circuits,

- high speed paper tape input,
- fully automatic operation.

The production model was ready in time for the decyphering of messages just five days prior to D-Day, giving vital information to Eisenhower and Montgomery about German troop movements. Decyphered Lorenz messages showed that Hitler had swallowed the Allied deception campaigns, so he was convinced that the invasion would come in Belgium, where he consequently kept his *Panzer* - divisions. The Colossus reduced the time to break Lorenz messages from weeks to hours.

End of WWII.

The Colossus was a highly secret machine, for example very few BPO staff had any knowledge of Bletchley Park or the work done there. The use of the drawing office was not initially allowed, so circuit diagrams were drawn freehand; paperwork was kept to a minimum, and individual panelwork was so small that the assembly and wiring staff could not figure out what the circuits were intended for.

At the end of the war it was decided to maintain the secretive atmosphere. All equipment at Bletchley Park would be destroyed, and staff was forbidden to talk about the work (it is said that Churchill ordered the destruction of all Colossus machines into 'pieces no bigger than a man's hand').

All plans and blueprints for the world's first computer were burnt and other scientists gained the credit for having invented the computer. For decades University of Pennsylvania's ENIAC was considered to be the first electronic computer, although it was not used till late 1945 or early 1946. ENIAC was a larger and faster machine than Colossus, having about 18,000 valves. It had conditional branching and was programmed using patchable cables. Like Colossus, it was a special purpose machine, in this case for solving differential equations in the ballistics area.

It was not till 30 years after WWII that the British Government declassified, even if only partially, the electronic computers secretly developed during the war. It was not until 1994 that Colossus was physically recreated - after two years of hard work, to some extent by volunteers. The re-created model is now in the Museum of Bletchley Park. Because of the secrecy surrounding the project, Colossus was to have very little influence on the development of later computers.

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Sources.

Enever T., *Britain's Best Kept Secret*, London 1994.

Hinsley F.H. and Stripp A., *Code Breakers*, Oxford 1993.

Sale T., *Lorenz Ciphers and The Colossus*, London 2003.

Singh S., *The Code Book*, London 1988.

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No newsletter seems complete without some wise words from Gordon Cupit!!

COMMUNICATIONS TO PAPUA-NG -- WORLD WAR II,

Gordon writes “An Article in the SMH about the 10th Nov, 2004, contains a story about a PMG Engineer, John MacGregor aged 86, retired and now living in Ballina, who with his crew organised the laying of old Tasmanian cables, across Torres Straits and the Gulf of Papua. This was to provide General MacArthur wireless free and secure communications.

The thought arising from this story, was where did the cable come from?

In Volume 1 of our Newsletter the answer appeared.

“In 1859 a cable was laid between Cape Otway and George Town in NW Tasmania. This cable failed a year later and was abandoned. Another cable was laid between Flinders (Vic) to Georgetown (Tas) in 1869 by the Eastern Extension

Cable Company. This cable was renovated and renewed in 1885.

In 1898 a further cable was laid over the same route, again by the Eastern Extension Co. In 1909, the Federal Government took over both the 1885 and 1898 cables and built two new ones of their own. The old cables were abandoned. At the same time the old 1869 cable was pulled out of the water and sold to Singapore, where it was re-laid in shallow water.

The cables laid in Torres Strait during the war, were the 1858 and 1898 cables.

This from 'The Herald'

"A former engineer who helped build the secure line to allow General Douglas MacArthur to give orders during World War II has finally received acknowledgement that, though a civilian, he did operational service.

The acknowledgement is late -by more than 60 years - but the official recognition, on Armistice Day last week, is sweet victory for John MacGregor, of Ballina.

Mr MacGregor, now 86, and his crew were responsible for establishing secure telephone lines *(Is this a mistake – they were only telegraph cables! Ed.)* across Torres Strait and the Gulf of Papua, so that General MacArthur did not have to rely on radio.

"The Japanese got within 10 miles of Port Moresby," Mr MacGregor said. "But by then MacArthur had his secure line, and for the first time the Japanese were pushed back."

Mr MacGregor, who was born with two club feet that handicapped him throughout his life, has had an extraordinary career, including working from 1962 to 1965 at the University of Baghdad and teaching, among others, Saddam Hussein.

After the war he became divisional engineer in charge of recruiting and training for the Postmaster-General's Department and, since retirement 31 years ago, has enjoyed great success in inventing, being named Inventor of the Year in 1980.

But gaining recognition for operational service - laying the grounds for being awarded the Pacific Star - is perhaps his most satisfying achievement.

"It had been decided in 1942 that the army, the navy and the PMG Department should recover two unused telegraph cables between Victoria and Tasmania and transport them to be laid across the strait and the Gulf of Papua," he said.

"This was the missing link in ' the first secure line, which General MacArthur had requested to be built from Brisbane to the north coast of New Guinea, so that the Japanese could not listen in on the orders from headquarters to the frontline, on the north coast of New Guinea.

"I have been campaigning for many years," Mr MacGregor said. "I have spent perhaps $10,000 on telephone calls and faxes and I have a file three inches thick. The Department of Defence resisted me, and the RSL were just as bad."

But he said that more recently he had had a far more conciliatory and co-operative response from the RSL.

He recalled Saddam as a radical student who kept calling out that the British and Americans were "stealing our oil". He did not know the future dictator personally but he once had to sign a certificate that Saddam had not been absent on a particular occasion: "It was the day the Iraqi president was shot at in an attempted assassination."

Mr MacGregor was also a consultant to the inquiry into the Waterfall train disaster."

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DATES FROM OTC HISTORY

(Provided by Martin Ratia)

1946 - August 7: OTC established by Act of Parliament (The Overseas Telecommunications Act, 1946).

1946 - August 23: First Commission appointed - James Malone appointed Chief Commissioner.

1946 - October 1: OTC and AWA Ltd signed a Caretaker and Management Agreement under which AWA continued to control and operate radio services until such time as the Commission had the resources to assume full control.

1946 - October 19: JES Stevens appointed first General Manager of OTC.

1947 - February 1: OTC assumed full control of radio services from AWA Ltd.

1947 - July 1: Interim Management Agreement signed by OTC and Cable and Wireless Ltd. OTC assumed managerial control of the Australian international cable network but the assets remained with Cable and Wireless Ltd.

1948 - January 25: First Wagga Weekend (OTC annual staff sports carnival).

1948 - April: OTC's first annual report tabled in Parliament (covering the period from establishment of the Commission to 30 June 1947).

1948 - August: First issue of OTC staff magazine, Transit, published.

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TSUNAMI ASSISTANCE

A number of members wanted to provide help for the Tsunami restoration appeal and our President investigated avenues by which a contribution of personnel and expertise might be offered. However, it appeared that our skills were not what was required so we contented ourselves with personal donations to the relief appeals.

However, we did investigate whether we could once more get into harness!

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HERITAGE AT LA PEROUSE

There will be a working bee at La Perouse in the week starting 7 March to pack this equipment for transfer to Australian museums. Contact Henry Cranfield!!!

Our heritage in store at La Perouse

Spark Transmitter

Racal RA 17 receiver

Submarine cable samples

Come and help save our history!!

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Vale -- Betty Wood,

Sadly we have to advise that Betty Wood, wife of Mick, a long time member of OTVA, passed away on 11 January 2005. We extend our deepest sympathy and condolences to Mick and his family.

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