

# Overseas Telecommunications Veterans Association (Australia)

Tom Barker, <u>President</u> Tlf. 9523 1269 Fax. 9527 4873 Email. <u>tombarker@compuserve.com</u>

Bernie White, <u>Secretary</u> Tlf. 4381 2405 Fax. 4381 2405

Allan Hennessy, <u>Data Records</u> Tlf. 9534 2237 Email <u>allanrh@ozemail.com.au</u>

Laurie McIllree, <u>Subscriptions</u> Tlf. 9339 6923 C/O Telstra 7/363 Oxford Street PADDINGTON 2021 Email <u>Incillre@nibupad.telstra.com.au</u>

Fred Kannard, <u>Applications</u> 23 Lyne Road CHELTENHAM 2119 Tlf. 9342 4377

David Charrett, <u>Website</u> PO Box 495 MILSONS POINT 2061 Tlf. 99290899 Email; <u>charrett@mpx.com.au</u>

Ray Hookway, <u>Archives</u> 9/38 Cleand Road ARTARMON 2064 Tlf. 9411 1873 Email. <u>rraymond@ozemail.com.au</u>

Henry Cranfield, <u>Editor</u> 26 Weston Street BEVERLEY HILLS 2209 Tlf. 9534 1526

"Our"WEB ADDRESS" is http://www.amaze.net.au/~colister Editor Henry Cranfield ISSN 13222-1906 Volume VII Part 1 Page 19 [September 1999] COMING SOCIAL EVENTS.

<u>September Reunion.</u> When: Friday 3rd September 1999. Where: CTA Martin Place Sydney. Time: 12.00 noon Cost: \$15.00/ Head. Finger food RSVP BY 30/8/99

**XMAS FUNCTION** When: Friday 26th November1999. Where: THE ORIENTAL ROOM THE MANDARIN CLUB Pitt Street. SYDNEY. Time: 12.00 NOON Cost: \$ 25.00/ HEAD **RSVP by 22/11/99** ALL BOOKINGS to; Keith McCredden by phone to 9342 0009 Laurie McIllree 9339 6923 Eamonn Fitzpatrick 9792 1791 All these are work numbers.

Please note:-All members who register to attend our functions MUST pay the price of entry. Anyone not able to attend should submit an apology prior to the event to avoid payment. We are sorry but there is no alternative if we are to remain financial viable.. For our Xmas function we regret to advise anyone NOT BOOKING will not be admitted as The Mandarin Club require to know the exact numbers prior to the event.

In this issue:-

Vale. Gray MacDonald. Sandy Sandilands.

Feature articles by Tom Barker and Henry Cranfield.

Uscar

Victor



KINDLY NOTE that Bernie White's phone number and address have changed in recent months and the new contact details are now as follows:-

Bernie White Phone: 4381 2405 VK2IIP

335 The Round Drive Avoca Beach 2251

PO Box 8 Georges Hall 2198 is still the OTVA address.

**OTVA WEB PAGE.** 

Joe Collister has put together an OTVA Web Page whose address is listed on at the bottom of this paragraph. It is our hope that it will be regularly updated, contain excerpts from the Bulletin, carry news of members and meeting notices. To enable this to happen, we would ask all to send their information to Dave Charrett at email address; charrett@mpx.com.au .

In this the "Info" age, this is the way to go Whatever happened to Minerva? If anyone has any ideas as to how we can improve the content, please let a member of the committee know. We look forward to your contributions.

# MADANG SEACOM SHORE-ENDS LAY

The short story regarding the Madang Seacom Cable landing in the February "Bulletin" s a sequel.

In early 1966 the C.S. Retriever came to Madang to lay the earth plates and shore-ends. I was approached by Fr. Gellic, the Catholic Mission schooner skipper and who asked "When was OTC returning his echo-sounder we borrowed for HMS Cook and sent for repair to Sydney?" He also inquired if he could visit the ship on arrival.

A Service message was dispatched to H.O. immediately and Captain Noel Smith readily agreed to the visit inviting him to dinner on the night of our first day of operations. The echo-sounder was sent up by H.O. a few weeks later. I was invited to take Father down to the ship at 6.00 PM but declined the dinner invite.

On arriving at the beach at 6.30 AM on the Sunday to start operations at 7.00 we discovered no ship! A call on HF radio revealed that the ship was just leaving the harbour and that the Chief Officer Dave Ferry was on his way by car to the beach.

A little later he arrived and when we queried the whereabouts of Capt. Smith we were told he was "indisposed" and that Dick Pitt the ships cable engineer was in charge of shipboard operations. It appears that Capt. Smith and the good Father had retired to his cabin for after dinner drinks and "over-indulged." Consumption was three bottles of "Scotland's finest" and at sailing time Father was asleep in the Captain's bunk with the Captain asleep on the floor.

" Alls well that ends well" the ends etc were duly completed and the system remained operational until 1986 when it was closed due to the cost of repairs caused by volcanic activity. Those were the days dear readers, with a thousand more to tell of the ways and the activities of those who go forth to install.

The Chicken Hawk.

Newsletter Editor Changed..

The Bulletin for several years has been edited by Jim Anderson. To him goes a very large vote of thanks for his efforts which all have enjoyed reading, we must also remember Pam Helps typing efforts and co-ordination when the Newsletter was produced in Elizabeth Street. That has gone by the board and our last issues have been the products of a dedicated group utilising the good office of Bernie White.

Jim has now retired and the role of Editor taken over by Henry Cranfield ably supported by Allan Hennessy, Tom Barker and Bernie White. All the printing etc was done at Bernie's and it is too much to expect him to continue so we are making arrangements to have the newsletter printed and sent out in an envelope at a cost of 40cents a copy plus postage. This is the best we can do, what we really need is a bigger Membership to share the costs. Our plea is for all members to try and recruit more financial members! We hope to improve our lay-out, include news of members and ''whats happening around the states'' plus meeting notices and brief resumes of what is happening in''The Digital Era'' We hope our past contributors will keep up their input and look forward to some new writers. All contributions to the editor please. We have also thought of changing the name so any ideas in keeping with our objects are welcome. Please onpass to President Tom Barker.

# SOUTHERN CROSS CABLE NETWORK. From Tom Barker

A new submarine fibre-optic cable system is in the process of being laid across the south Pacific ocean, linking Australia with the United States west coast, via New Zealand, Fiji and the Hawaiian Islands. This will be the second fibre-optic cable to be laid across this route, the first being the PACRIM system, in which OTC took the major role in the early 1990s.

It is interesting to reflect on the way in which submarine cable technology has developed over the past forty years and to compare the expectations of the people who designed and developed these systems. Most veterans would remember, clearly, the laying of the first trans-Pacific coaxial submarine cable, COMPAC, in 1963 (an analogue system) and the oft-quoted statement by Sir Robert Menzies at its opening, "this cable system has sufficient capacity the meet Australia's needs for the next twenty years". As we recall, the last of that capacity (80 4Khz voice circuits) went into service within three years and there was a race to find additional capacity, first via the new Intelsat system and later via the ANZCAN (12Mhz 1,480 circuit) cable.

The first fibre/optic cable system to be laid over this route was PACRIM East, which landed in Hawaii and New Zealand before extending from there to Australia as TASMAN II. Being a digital cable system, its capacity was expressed in Gigabits per second and it had a capacity of 2.5Gbps, which can be translated into voice circuits by dividing that number by 64Kbps, using the conventional adaptive digital pulse code modulation (ADPCM) technique.

This gave PACRIM a nominal capacity of about 39,000 voice circuits.

The Southern Cross cable system is different from PACRIM in that it uses synchronous digital hierarchy (SDH) technology, whereas the PACRIM cable used plesiosochronous digital hierarchy (PDH) technology. The outstanding feature of SDH is that, with the provision of two diversely routed links between every pair of service users, service can be automatically restored in the event of a cable break, so fast that a conversation is not interrupted.

The Southern Cross cable also has redundant fibre pairs which are activated automatically in the event of a fault in an operational fibre. In order to provide these diverse routes, two cables are laid, in two huge loops, one between the US west coast and Hawaii and the second between Hawaii and Australia. The loops between California and Hawaii will land on two different Hawaiian Islands and two landing points on the US mainland, these being linked by tie cables, in both cases. The cables from Hawaii to Australia, are routed; one via New Zealand (the southern route) and the other via Suva, with landings north and south of Sydney.

There are two other significant differences in the technology used for Southern Cross. The submarine repeaters use light amplifiers, whereas PACRIM repeaters decode the light signals into electrical impulses, which drive lasers to re-originate the light signals. Also, PACRIM operates in the single mode (all light is switched as one signal or colour or wavelength) whereas, Southern Cross switches sixteen separate colours as discrete signals, through a process of Dense Wave Division Multiplexing (DWDM). This vastly increases the capacity of the system.

The leg of the system from Sydney to New Zealand is equipped to operate at a higher rate than all others, with the sixteen colours each running at 10Gbps, to provide an initial capacity equal to nearly 500,000 and ultimate capacity of almost 2,000,000 64Kbps voice circuits. However, the maximum, theoretical capacity in terms of voice circuits could be as much as eight time this number, due to the modern voice compression techniques which are applied to voice communications. If one considers the above arithmetic, it would be necessary for the entire population of Australia to engage in simultaneous conversation with somebody else, in order to use up such a capacity for voice communications. Obviously, this will not be the case, and most of this capacity will be used for non-voice applications, particularly corporate communications and Internet access communications. Unlike the PACRIM cable system, Southern Cross is owned by New Zealand Telecom (50%) Optus (40%) and MCI WorldCom (10%). Telstra has declined to take capacity in the system, electing instead to route most of its traffic to North America and Europe via cables landing in Western Australia, which it considers to be a more economical or appropriate route.

*VALE.* OTVA notes with sadness and regret the passing of the following members :

# Sandy Sandilands.

Alexander (Sandy) Sandilands died on the 24th June at his Nelligen NSW home after a long battle with cancer. Sandy was born in Wick, Scotland and joined the Merchant Navy as a Radio Officer in the latter part of WW II. After the war he sailed with several shipping companies, although he always said the New Zwaland Shipping Co. was his favorite.

He came ashore in Australia in 1955 to join OTC as a radio officer, doing a stint at Broome Radio before resigning to go down to the Antarctic at the end of 1956. On leaving the Antarctic he went back to Scotland where he married a girl (Betty) from his hometown. Returning to Australia with her he rejoined OTC, serving over the years at Thursday Island, Rabaul, Norfolk Island and La Perouse. In 1980 Sandy was made Deputy Manager Perth Radio and in 1985, Manager La Perouse from where he retired in 1989 to live down the South Coast of NSW at Nelligen. Until his last years he was a keen Ham radio enthusiast.

Sandy will be greatly missed by his myriad friends. He was a generous, warm hearted man with a great sense of humour and an enormous fund of stories from both his seafaring days and those he spent with OTC. His love of life was legendary.

He leaves a widow (Betty), a daughter Fiona and two grandsons. To them go our deepest sympathy and condolences.

### Gray MacDonald. (E.G.)

Gray MacDonald died in the early hours of Saturday 17th July. His passing was peaceful in the company of his family. He was aged 67 years.

Gray's career with OTC spanned approximately 31 years; firstly with the Coast Radio Service for whom he completed tours of duty at Thursday Island, Port Moresby and Rabaul and later with the newly formed Commercial Branch of OTC in Sydney where he was an integral part of a group breaking new ground in customer service and sales. In 1980, Gray left OTC to join ITT Worldcom, moving on in 1985/86 to MCI International where he remained until his retirement in 1994.

In his private life, Gray was active in the State Emergency Service arising from which he was awarded firstly a Certificate of Outstanding Community Service and, later the National Medal.

An enthusiastic supporter of all of OTC/Telstra's social activities (including the Wagga Wagga weekend), patron of Many Warringah Radio Club, devoted to his family and friends, Gray will be sadly missed by all.

#### NEW SOUTH WALES BRANCH.

Minutes of 43<sup>rd</sup> Annual General Meeting held at the Commercial Travellers Club, Martin Place, Sydney at 12.30pm on Friday, 18<sup>th</sup> June, 1999.

<b>Members Pres</b>	ent:- As per attached list.
Apologies:-	As per attached list.
Minutes:-	The Minutes of the 42 <sup>nd</sup> Annual General Meeting were read and

approved by all present.

President's Welcoming Address and Report.

The President, Mr Tom Barker, welcomed the members present and highlighted many facts relating to our situation and especially welcomed any new members who were attending their first Vet's meeting.

VALES:- The period since our last AGM has seen the passing of a number of our members:- Ray Wood, Roger Allen, Ray Baty, Barry Henson, Ron Flood and Tom Tuite. I would ask you all to now stand for one minutes silence in tribute to their passing.

**REPORT:-** The year 1998/99 has been a year of real consolidation for our organisation. We have regrouped, as it were, to get a better handle on the operation of the Vet's as a self-funded and independent organisation and to try to restore a sense of continuity and permanence to our membership. In this, I believe we have been remarkably successful.

We have lost the assistance of some good committee members recently with Mick Woods, John Phillips, Pam Helps, Alf Culloden, and Peter Roberts standing down from committee. Jim Anderson wishes to stand down as Editor but will stand for Committee. My heartfelt thanks go to all committee members who have performed their tasks extremely well during the year. Special thanks go to John Phillips and Joe Collister for their efforts and to Telstra for allowing the use of their facilities as a venue for our committee meetings.

I have written to Dr Ziggy Switkowsky congratulating him on his appointment and making him aware of the OTVA and the efforts we have made to preserve Australia's history in international telecommunications.

You will have gathered from my previous remarks that we face the loss of a number of valuable members of the OTVA committee at this time. This is a serious matter and I urge you to think seriously about it. Regrettably, a large number of previous members who received the Newsletter for many years have not been willing or able to pay their annual subscriptions, which leaves us with a smaller paid circulation and does not deliver the economies of scale which we had hoped for.

We cannot continue to support these unfinancial members indefinitely and there will come a time, very shortly, when their names will be deleted from our data base records.

Secretary/Treasurers Report.

The financial reports were distributed around the venue for members to peruse at their convenience.

In essence an Excess of Income over Expenditure for the year of \$792.87 was achieved whilst the Accumulated Funds of the Association now stand at \$3829.52 .

The accounts have been audited by Tony Farrugia and Ken Theaker and I thank them for their attention to this detail. Thanks are also extended to all financial members for their contributions and their

continued support is still sort in order to make our way clear to see us through into the next millenium.

It was moved and seconded by Cyril Vahtrick and Jim Anderson that the financial reports be approved.

Motion Carried.

**General Business:-**

Tom Barker stated that at present we do not have sufficient funds available to publish our Newsletters using commercial printing firms and hence we are seeking new committee members to assist in the printing, collation and distribution in the months ahead of us. Peter Warrilow suggested that with the popularity of EMAIL among members that we investigate the distribution of our Newsletters by this system. This point was taken and it was also suggested that we seek EMAIL address to be recorded on our application forms.

**Election of Officers:-**

Cyril Vahtrick very kindly took over the role of Returning Officer and recorded the following results:-

President:-	Tom Barker.
Secretary/Treasurer:-	Bernie White.
Editor:-	Henry Cranfield.
Committee:	Jim Anderson, Dave Charrett, Henry Cranfield,
	Bob Dean, Eamonn Fitzpatrick, Alan Hennessy,
	Ray Hookway, Fred Kannard, Keith
	McCredden, Laurie McIllree and Robert
	Padgett.

**Closure:-** There being no further business the meeting closed at 1pm.

# Members attending the Annual General Meeting.18th June 1999

Jim Anderson, Tom Barker, Garry Beaton, John Bennett, Brian Brennan, Brian Callaghan, Dennis Carrol, David Charrett, Bruce Collett, Ron Connolly, Alf Culloden, Gordon Cupit, Brian Curran, Jim Davis, Bob Dean, Peter Dean, Athol Delahunty, Mick Faraj, Eamonn Fitzpatrick, Russell Fitzpatrick, Emile Fooks, Frank Hall, Allan Hennessy, John Hodgson, Ray Hookway, Jan Howe, John Hughes, Fred James, Colin Kelly, John Kitchener, Peter Lloyd, George Madren, Charlie Maiden, Noel Martin, Maurie Matthyz, Don Montgomery, John Myors, Jim Napy, David Richardson, Keith McCredden, Ben McGee, Laurie McllIree, Horrie McInnes, Paul Nagar, Fred Nicholls, Alan Oakford, Maurie O'Connor, Geoff Oldman, Tom O'Sullivan, Darrel Savage, Bill Sayers,

Michael Sayers, Peter Skinner, Dave Smith, Bob Sweeney, RAF Taylor, Stuart Taylor, Doug Temperley, Ken Theaker, Gareth Thompson, Roger Thompson, Michael Towner, Jim Tresidder, Gordon Turner, Jeff Tyson, Cyril Vahtrick, Greg Waller, Peter Warrilow, Dave Weeks, Bernie, Jack Whittaker. Mick Wilden and Joan Willis

Closure of Morse Transmission in the Maritime Service.

An era in Maritime Communications came to an end in Australia at 11.00 AM (0001 UTC) Eastern Summer Time on Monday 1st February 1999 when Morse code as a means of communication with ships at sea came to an end. The last Morse code message was sent over Telstra's Maritime Communication network, marking the end of a service that played a vital role in saving lives at sea and helping ships in distress for the best part of a century.

Morse Code has now become obsolete as maritime Communications System being replaced by the Global Maritime Distress and Safety System or GMDSS, a vastly superior, safer, and more reliable land-based Satellite System.

All Morse code transmitters and receivers in Australia were switched off at one minute to midnight GMT on 31 January [11.00AM 1st February EST]. No longer will the familiar SOS signal be used and morse keys around the Australian coastline have been silenced forever. The International Distress frequency of 500KHz will no longer be monitored.

Stations around Australia have used Morse code to provide Navigation warnings, weather information, communicate with vessels in distress, provide maritime safety information and commercial use in the exchange of radiotelegrams between vessels and shipowners worldwide going as far back as 1912.

The network was born out of the Titanic tragedy, after which nations got together and developed a system to provide Safety of Life at Sea or SOLAS using the best communications available. There were once 19 Coastal Radio stations operating around Australia and this number is now reduced to six, three of which are remotely controlled, because the introduction of higher frequencies gives the same coverage as previously available with the larger network. About 400 people, mainly operators and technicians were once employed directly in this activity at any one time. Today 38 are involved with the operating centres located at Ningi just north of Brisbane, Perth and Melbourne.

The last morse code message to be tapped out by two operators; one in Perth to service W.A. the other in Cape Schank, Victoria to service Eastern Australia. It farewelled ships at sea and even included a tribute to the father of Radio Communications, Marconi.

The message in morse read, "All ships, All ships. this is the final morse transmission from the Telstra Maritime Communications Network. We conclude our final watch after 87 years of continuos service, with pride and sadness.

Telstra, the Maritime Safety Authority and the Bureau of Meteorology wish all seafarers fair winds and following seas. Marconi if you can hear this, we salute you.''

Morse code as a Maritime communications system has now ended in virtually all countries. It's non-maritime use will continue particularly with "Ham Radio" operators Australia's closure of the service is part of our ongoing transition to GMDSS as laid down by the recommendations if the International Maritime Organisation, to which Australia is a signatory.

For Matt O'Neill, Operations Manager Maritime Services and his colleagues, !st February was a sad day. But Matt is quick to point out that Telstra's commitment to the safety of life at sea will continue. "Our contract with the Australian Maritime Safety Authority continues, and we have migrated all existing customers over to the new state of the art system. I'm sad that the morse skills will now die. It has served this country- indeed the world- very well indeed. "

Our thanks to TelstrA's in-house magazine "Our Future" of 5/9/99 for the article and to Derek Walker from Perth for bringing it to our notice.