



# Newsletter

## Overseas Telecommunications Veterans Association (Australia)

**Tom Barker, President**  
6 Rackham Crescent, Burrill Lake NSW 2539  
Tlf. 4 455 1403  
Email:- [tombarker@compuserve.com](mailto:tombarker@compuserve.com)

**Bernie White, Secretary**  
335 The Round Drive, Avoca Beach NSW 2251  
Tlf/Fax 4381 2405  
PO Box 8, Georges Hall, NSW is still the OTVA address.

**Allan Hennesy, Data Records,**  
38 Cairds Avenue, Riverwood, NSW 2201  
Tlf 9534 2237  
Email:- [allrb@ozmail.com.au](mailto:allrb@ozmail.com.au)

**Laurie McIlree, Subscriptions,**  
Tlf. 9339 6923 (Bus)  
C/- Telstra,  
7/363 Oxford Street, Paddington, NSW 2021  
Email:- [laurie.mcilree@compuserve.com.au](mailto:laurie.mcilree@compuserve.com.au)

**Fred Kannard, Membership Applications,**  
23 Lyne Road, Cheltenham, NSW 2119  
Tlf:- 9342 4377  
Email:- [fred.kannard@compuserve.com.au](mailto:fred.kannard@compuserve.com.au)

**David Charrett, Website Co-ordination**  
1 Maltland Street, Killara, NSW 2071  
Tlf:- 9418 1361  
Email:- [charrett@mpx.com.au](mailto:charrett@mpx.com.au)

**Ray Hookway, Archives,**  
9/38 Cleand Road, Artarmon, NSW 2064  
Tlf:- 9411 1873  
Email:- [rraymond@ozemail.com.au](mailto:rraymond@ozemail.com.au)

**Henry Cranfield, Editor,**  
26 Weston Street, Beverly Hills NSW 2209  
Tlf:- 9342 0099 (Bus)

**Keith McCredde, Functions,**  
Tlf :- 9342 0099 (Bus)  
**Eamonn Fitzpatrick, Subscriptions,**  
Tlf:- :- 9792 1791 (Bus)

**Editor:- HENRY CRANFIELD**  
ISSN 13222-1906  
Volume VII Part 1 Page 33  
FEBRUARY, 2000

Please note the following:  
All members who register to attend a function MUST pay the price of entry. Anyone unable to attend should forward an apology prior to the event to avoid payment. We are sorry but there is no alternative if we are to remain financial.  
Our next gathering is to be held at the CTA Club, Martin Place, Sydney on Friday, 17th March, 2000 at 12.30pm

**ALL BOOKINGS to:-**  
Keith McCredde by phone to 9342 0099  
Laurie McIlree 9339 6923  
Eamonn Fitzpatrick 9792 1791  
All these are work numbers.

The yearly subscriptions fall due again in May and will be accepted in advance. Kindly send your payment to Laurie McIlree at his PADD0 address.

**In this issue:-**  
Feature articles by:- Derek Walker (WA)  
Cyril Vahtrick, Gordon Cupit  
Adelaide Christmas Meeting.  
Secretary's Note.  
President's Note.

**Vale:- Norbert Pasqual.**

**Rob Pudgett, Business Sponsorship,**  
Tlf:- 9964 9555 (Bus)  
Email:- [rob@compuserve.com.au](mailto:rob@compuserve.com.au)  
Our Webpage address is:-  
<http://amaze.net.au/~collister>

— — —  
**Oscar**

—  
**Tango**

• • • —  
**Victor**

• —  
**Alpha**

THE FLIGHT OF THE ILL-FATED LANI BIRD.  
(A satellite story- C Vahtrick)

The name "Lani Bird" will have totally receded into history long ago. It was concocted by a Comsat public relations man called Matt (I forget his surname) who had achieved some fame with his naming of "Early Bird", which was the very first public telecommunications satellite to be launched and put into service.

To digress a little, the background of Early Bird is also interesting. Having been unexpectedly upstaged by USSR with the launch of Sputnik in October 1957, USA was keenly looking to regain its space supremacy, including by being the first to achieve a viable public telecommunications satellite system.

After a number of satellite experiments by USA companies, including Echo, a large reflecting sphere (which crumpled like a prune); and Relay (RCA); and the better known Telstar (AT&T); the most interesting prospect appeared to be Syncom, a geo-synchronous satellite designed and launched by Hughes Aircraft Company.

While this spate of activity was continuing, the Communications Satellite Corporation (Comsat) was set up by USA as a statutory corporation with the mandate to provide a global satellite communication system. USA then sought the participation of other nations (including Australia) to bring this about. This eventually led to the formation of INTELSAT, an international organization, with Comsat contracted as its manager. OTC was one of the eleven foundation members of Intelsat. (August, 1964)

Comsat already had a head of steam going and had contracted with Hughes for a synchronous experimental/operational satellite, based on Syncom, to be launched over the Atlantic to provide USA-Europe communications. Intelsat was persuaded by Comsat to take over the responsibility for this exercise and the satellite was successfully launched on April 16th, 1965. The satellite had been identified by its contractual name of "HS 303" and was also known as Intelsat 1.

It was well known that USSR was also moving towards a satellite communications system based on the "Molniya" satellite series, and there was intense rivalry between USA and USSR to see who could be first in this field. With a clear victory to the new Intelsat satellite, constructed and launched by USA industry, it was ceremoniously named "Early Bird" by Comsat.

While Intelsat was still getting into its stride, the US national space agency NASA approached Intelsat in October, 1965, to provide a satellite communication system to back up the Apollo Man on the Moon project. A number of links straddling the globe would be required, including one from the NASA tracking station at Carnarvon (WA) to USA. The target date was October, 1966.

OTC accepted the challenge to provide an earth station facility at Carnarvon, with a lead time of less than 12 months, starting from scratch! In view of the very short time available, we decided to place a follow-on order for similar equipment to that which had been already chosen by Comsat for earth stations which they were establishing in USA. Hence the installation of the “sugar scoop” (casshorn) antenna at Carnarvon.

Many OTC people who participated in getting Carnarvon going will remember all the trauma in trying to meet an almost impossible time target. However, it can be safely said that we were ready when the first of the new Intelsat II satellites was launched on 26th October, 1966.

This satellite was due to be positioned over the Pacific to provide a link between Carnarvon and the USA as the first link in the Apollo global communication network. The spacecraft was also designed and built by Hughes Aircraft, based on Syncom, but with increased power capacity and somewhat better antenna performance.

Both Intelsat I and Intelsat II satellites were drum shaped and embodied an “apogee kick” solid fuel rocket motor which was not fired until after the satellite had been initially launched into a preliminary parking orbit and had its trajectory accurately measured. The firing of the apogee kick motor at a precise point then propelled the satellite into its final synchronous orbit position. (Provided it worked correctly).

In the case of the first Intelsat II satellite, after it had been successfully launched into its parking orbit and with its ultimate destination over exotic islands in the Pacific, Matt (Comsat) declared for the media that it would be called ‘Lani Bird’. Unfortunately, during the firing of the apogee kick rocket motor, the rocket nozzle blew off and the satellite failed to reach its destined asynchronous orbit, remaining in a loop which brought it round every twelve hours or so.

Carnarvon was able to track and monitor signals from the satellite and also briefly establish communications with the Comsat station at Hawaii. The UK earth station at Goonhilly also picked up the signals when the satellite came round to the right place.

At this stage, international television relay was a novelty and had only been achieved via satellite across the Atlantic on an experimental basis. There had also been some experimental transmissions across the Pacific via the RCA Relay satellite in 1964 during the Tokyo Olympic Games. As part of our satellite studies, this led me to investigate the technical feasibility of receiving the Relay transmission in Australia.

The Relay satellite transmitted at around 1.4 Ghz, which happened to be within the optimum frequency range of the Parkes radio telescope. Having found that we could obtain the necessary television adaptors from Hughes Aircraft, I found enthusiastic support from our General Manager. Trevor Housley, for the concept of having Australia's first international television relay if this could be arranged. However, we were unable to persuade CSIRO to make the telescope available. (It later featured, however, in being used to receive television signals from the moon during the first manned landing in 1969).

With the possibility of television still in mind in 1966, when it was found that we could contact Goonhilly using the faulty Lani Bird satellite, I resurrected the idea of trying to make history by arranging a television hookup. (I had learned that the Department of Supply and NASA were planning to use the NASA station at Cooby Creek in Queensland for an international television hookup within a few months, so this provided an incentive to get there first)

At this stage, I should like to quote from an article written by Jim Robertson, who was a sectional engineer with OTC at the time.

“Despite my protestations that the Carnarvon station was not equipped for television signals... Tom (Minta) and I were shot off to Carnarvon again to try and get some pictures from the BBC.

We begged, borrowed and stole various amplifiers and control and test equipment from my erstwhile friends in the ABC, put the whole lot in a temporary tin shed near the sugar scoop, the nickname of the odd-shaped (Cassegrain) antenna. All the equipment was tied together with string and faith and we pressed a button and up came the BBC's test pattern!

Following hectic negotiations and prayers a session was arranged for the several migrant families living near Carnarvon to confront their relatives and friends face to face in Britain. Because it was unrehearsed, a very strong, natural half-hour programme eventuated totally between Carnarvon and London. At that stage, Carnarvon had no micro-wave link for TV to anywhere else in Australia - only to Land's End!

The ABC did however record this historic event, the first live TV programme in and out of Australia with the British or with anyone else, and it was re-broadcast later on their main network programmes”...

(I have to qualify this slightly by observing that the picture received at Carnarvon was of low quality because of the smaller antenna and lower satellite antenna performance (caused by being skewed), but the reception at Goonhilly was quite reasonable).

This event occurred in December. 1966 and preceded the Department of Supply/NASA international satellite hook-up event by several months.

The first regular international relay of TV programs to and from Australia began from the OTC Moree satellite earth station in 1968.

P.S. The next Intelsat II satellite was successfully launched over the Pacific in January, 1967, but Matt seemed to have lost his appetite for fancy names and there were no more as far as I can recall.

#### MEMORIES from QP.

It is just on fifty years since my transfer from SOR to Admin, but daily I am reminded of the Traffic Section by car number plates. I often see call signs, Q and Z codes and traffic prefixes such as LSB, DLT etc. How many of you old traffic veterans are affected the Same way?

Recently I had a phone call from Hec Blemings seeking information as to when Jim Flemings joined the Beam. Bit before my time as he was the telegraph tech in 1933. Can anyone help?

For those who did not know Hec, he was the son of that wild Telegraph Mechanic, Jim, from Ireland. Hec was in the services and joined the Beam through the Marconi School War Service Rehabilitation Scheme.

He was employed by AWA and subsequently OTC as a Beam Telegraphist. Unfortunately he lost his little daughter, and his wife and he went to Melbourne to visit her parents. Mrs Blemings had worked in a health store and noticed that there were no such stores in Melbourne. He resigned from OTC and opened such a store. Over the years Hec opened up a small chain of Health stores, then his own factory to manufacture some of the stock. Finally after building an office block, he is now retired and his hobby flying his own plane.

Good on you Hec. Hope to see you at our next reunion.

#### ADELAIDE REUNION from Harry Stone.

Our South Australian Branch held its Xmas meeting on Thursday 25th November 1999 at the old Hotel McLarenvale from noon to 3.30pm and was attended by eleven members and guests. OTVA members were Dave Herbert (President), Harry Stone (Sec/Treas.), Fred & Daphne Reeve, Ern Barrett, John McGregor, Bob Jude, Dick Inwood and Rhonda (OTCA CRS Sec.) Also present were Arro Krause (VK5HK) and Mike Kay (VK5ACX). Arro Krause is the present owner & resident of the old VIA Adelaidradio Station whilst Mike Kay is his 2IC, between them they run the dedicated memorial "Ham" station VK5CRS which operates from the old site.

Apologies were received from Max Lang and Paddy Wilkinson due to other pressing commitments. Denis Maher has moved to NSW, to live near his daughter and is not in the best of health, and so it is possible he may be attending the Sydney branch functions in the near future.

The luncheon and refreshments were excellent and following our usual custom, each member paid for his/her requirements of same. Then followed a considerable amount of ragchewing and reminiscing. Before we broke up, it was decided to follow our usual procedure and hold our next meeting, the AGM, at this same venue (McLarenvale Pub) on the last Thursday in May 2000.

Ern Barrett and myself visited the old VIA station after the luncheon and were given a guided tour by Arro and Mike. The station has been converted to a very comfortable home and is beautifully refurbished & redecorated. The old operating room and transmitter section is devoted to "Ham" radio and everything is computer controlled including frequency and mode changes. The old Doctor Morse is also both computerised, send/receive etc. A section has been set aside for various museum items, morse keys, bugs, etc. It is a credit to Arro and Mike and I guess all those who've worked in the old VIA will be pleased to learn this.

73's, RBP's (Stan Dennis's!) plus cheers and beers.

Harry Stone.

CLOSURE OF A-I-S CABLE from Derek Walker OTVA (WA). Yet another chapter in telecommunications history came to a close on 1<sup>st</sup> November, 1999 when Australia's last submarine analogue cable system was turned off at the Perth International Telecommunications Centre in Gnangara, Perth.

When the Australia-Indonesia-Singapore (A-I-S) cable came into service on 25th August, 1988 it had a design life of 25 years. Thirteen years later it was redundant, superseded by new state-of-the-art digital cable brought ashore into Australia during the 90's. Towards the end of its service life it had long ceased to be working at full capacity.

Costing US \$180m, of which OTC's share was US \$90m, the system was in two segments. Perth to Jakarta and Jakarta to Singapore. The Perth-Jakarta section was 1,969 nautical miles (3,647km) with 275 repeaters: the Jakarta to Singapore section was much shorter at 545nm (1,010km) with 78 repeaters. The route had been comprehensively surveyed in 1984 by Cable and Wireless (Marine) of the UK.

The Australian landing point was Whitfords Beach, some 24 km north of Perth. Reefs in the area necessitated the cable being protected by two layers of heavy armour for the last 8.5km to shore and because the landing point was nearly 17km from the cable terminal at PITC, two repeaters were required along the route. Because PITC was also home to high-powered HF radio transmitters a specially constructed screen room had to be provided to house the cable equipment.

A-I-S was an analogue equivalent four wire transmission system transmitting frequency division multiplex (FDM) signals in both directions over the single cable. Its total frequency bandwidth had an upper frequency limit of approximately 14mhz, divided into equal high and low bands carrying signals in opposite directions. Channel capacity was 1380 at 4khz spacing, 1840 at 3Khz spacing. At Perth the FDM baseband was converted down to supergroup frequencies and connected to digital multiplex equipment for onward transmission to OTC's international gateway exchanges at Broadway, Paddington and Scoresby.

While the main cable laying was carried out by the Cable & Wireless ship "C.S. Cable Venture" in early 1986, the southern end of the cable had been brought ashore at Whiffords Beach on the morning of 31st May, 1985 from a smaller ship, the "M.V. Finlith". And therein hangs a tale. Both OTC and Telecom personnel were on the beach to assist in (or just gawk at) the landing and champagne and croissants were served to much appreciation when the job was done. But as each participant arrived, he or she was handed a bright yellow sunhat with the word "Telecom" blazoned across the front of it, and because it was a bright sunny day everyone wore one. Consequently every photograph taken of the event, including press releases, shows a crowd of apparently all-Telecom personnel, and anybody seeing them would have concluded that the project was a totally Telecom initiative, with OTC, if it got a mention at all, being thought of as just another sub-branch of the Big-T. Not for the first or last time we had been upstaged, some would say shafted.

SECRETARY'S NOTE:

At our Sydney Xmas gathering the committee presented to Pam Helps and Jim Anderson a small token of their respect for the work both these members have done for the OTVA over many years. Both were delighted with the gifts and were all smiles as they unwrapped them in front of the members present at the gathering. Many thanks Pam and Jim, we hope you both continue to assist us where necessary in the future.

Our next gathering will be held on Friday, 17th March, 2000 at the CTA Club in Martin Place. Hope to see you there. The cost once again will be \$15.00 per head.

Dues are payable again in May and Laurie McIlree is looking for early birds, so keep him happy and pay in advance if convenient.

VALE:- Norbert Pasqual was an International Telegraph Operator in SOR and then moved to Broadway Telex. Our sympathies to his family on his recent demise.

Attendees at the Xmas 1999 gathering were as follows:

Jim Anderson, Ernie Anthoney, Eric Bachunann, Tom & Fay Barker, John Bennett, Dave Bourne, Brian Brennan, Allan Cabrera, Brian & Pat Calder, Mick Callaghan, Dennis Carrol. Dave Charrett, Bruce Collett, Kevin Conaghan. Peter Coroneos. Henry Cranfield, John Crowe, Gordon Cupit, Grace Darragh, Jim Davis, Geoff & Rita Day, Peter Dean, Vince Donahue, John Eades, Tony & Mary Ebert, Bob & Mrs Emanuel, Eammon Fitzpatrick, Dennis Grant, John Hampton, Edgar & Erica Harcourt, Lindsay Harradine, Norm Harris, Pam Helps, Jeff Hinwood, Judy Hoddleston, John Hodgson, Brian & Mrs Hoschke, Ken & Jan Howe, Gordon Jesson, Bill Jolly, Fred Kannard, Ted Kearney, Col Kelly. Peter Lloyd, Bob Lions, George Madren, David Munro, George & Mary Maltby, Keith McCredden, Bev McDonald, Ben McGee, Laurie & Felina McIlree, Horrie McInnes, Cleo & Jim Nagy, Brian Nell, Martin Nemeyer. Maurice O'Connor, Geoff Oldman, Trevor Pike, Mick Quinlan, Bob Rawkins, Tony & Colleen Richardson, Peter Roberts, Bill & Michael Sais, Gwen Sallaway, Audrey Sheath, Ross Smith, Barry Stockbridge, RAF Taylor, Doug Temperley, Roger Thompson. Elsie Thornley, Jim & Sylvia Tressider, Bruce Boler, Shirley Ulldriks, Cyril & Masie Vahtrick, Greg Waller, Bernie & Evelyn White, Dave Wicks, Mick Wilden, Dave Wills, Brian Woods, Jan Worth and Len Wylde.

Our guests of honour at this celebration were Pam Helps and Jim Anderson.

We still have a few contributions ready for our next publication of the Newsletter but need a constant supply so please tell us your story or something about some technical aspect of your career that will bear relating here for all to read.

Both Jim Anderson and Peter Whisson are again up and about and pass their best wishes on to their many friends.

#### PRESIDENT'S NOTE :-

The current OTVA Constitution was drafted in another age and bears little relevance to the Association as it exists today. In recent times Bernie White and I have both expressed concerns that there was need to develop a new document, which would better define our contemporary objectives and organisation. To this end, Bernie developed a draft document, which has been exposed to our committee and to others (Gordon Cupit and George Maltby) for their comments. I have also prevailed upon Maurice O'Connor to give us some critical comments, from a legal perspective, which he has kindly done. Amongst the concerns raised is the question of how such a constitution would affect those members of OTVA Branches in States other than New South Wales, this being the only Branch which still operates as a financial association, rather than a social group. It is my hope that we shall be in a position to offer a new draft Constitution to the 2000 AGM, for adoption at that meeting. I would therefore appreciate any comments from OTVA members, particularly from Veterans outside NSW, regarding this matter. Please address any comments you may have to Bernie White.



