

# RADAR RETURNS



**“The past always looks better than it was. It’s only pleasant because it isn’t here.”**

Finley Peter Dunne (1867 – 1936) Editor of Collier’s Magazine

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## EDITORIAL

Well, another year has come and gone and our radar group continues to grow. More post war radar people are now receiving the newsletter as well as some late comers from World War II.

This edition contains a mixture of the old and the new. Some anecdotes have surfaced about 13 Radar Station at Cape Otway. These recollections are about the unit’s wartime service and others are about the adventures of visitors to site in more recent times.

For those readers who have an interest in the reunion which was being planned for Darwin later this year, you need to read the latest bulletin on page 5. There have been some developments which have an impact on your plans.

As the mailing list grows, the interest in the use of radar during the war is also growing. Craig Bellamy is presently researching radar countermeasures in Australia and he would like to contact veterans who may have had some involvement in this area. His story is on page 2.

On the more modern side of radar, I have included a copy of a Press Release from the Minister for Defence. This provides some details on Project Wedgetail, the RAAF’s Airborne Early and Control Project. This is the equipment which will see service with 2 Squadron, presently based at Williamstown. The RAAF’s arsenal of air defence radar systems continues now that Jindalee Over The Horizon radar system has become operational.

I find it interesting that all these systems will have an impact on the monitoring of our northern approaches, which is also the topic of Alan Cross’s story on the same page. He hopes that as the anniversary of the first Darwin air raids approaches everyone will remember the contribution which radar played in this area.

Of historical note are two locations which also have links to radar history. The RAF Air Defence Radar Museum at Neatishead is a growing facility which is providing a focus for radar history in the UK. It is being supported by a number of Australian veterans who are ensuring that the museum has a wealth of Australian radar history as well. The details of this association are recorded on page 5, followed by the developments on Horn Island in northern Queensland.

Horn Island is another significant location in Australia’s defence history. This site is being developed with its historical significance in mind. All the details are on page 6.

If you happen to be travelling in these areas of the world I would recommend that you drop in and see the efforts being put into the development of these facilities.

Last, and by no means least, is the

Faded Echoes column. I would not be disappointed if I no entries for this column but, sadly, that is not the case for this edition. The list is not as large as the mid year edition but it does contain entries for post war radar personnel as well as World War II veterans.

On a more positive note, veterans of 313 Radar Station on Mornington Island may wish to contact Dr Eric Unthank. He served with the unit and would like to hear if any other members are still around and would like to get in contact. His details are on page 2.

If you have any thoughts or contributions you think other readers may be interested in, please drop me a line and I shall endeavour to fit your story into the newsletter. I accept any form of correspondence but, if you wish to send me email, I must inform you that *I have established a new address for Radar Returns with the OurBrisbane web site. The address is listed below so I look forward to seeing entries in the new mailbox.*

I hope you all have a happy and prosperous new year and you will hear from me soon in the not too distant future.

*[Pete Smith]*  
Editor

### RADAR RETURNS

Please address all correspondence to Radar Returns as follows:

Radar Returns  
18 Pandian Crescent  
Bellbowrie QLD 4070

**Phone:** (07) 3202 6524 or

**Email:**

RadarReturns@ourbrisbane.com

## DARWIN'S LAST BOMBER RAID

During 2002, much was made of the 60th Anniversary of those two devastating raids on Darwin on 19<sup>th</sup> February 1942. Including that date, a total of 64 well documented raids were made over the North West Area.

Some 21 months later, during the night of 12/13 November 1943, the last incursion by enemy bomber aircraft was experienced, with minimal damage.

During that intervening period between the first and last raid, radar played a very significant part in the defence of the North Western Area, fulfilling the role for which it was built and, with the proliferation of stations from Marchinbar (Wessel) Island to the south west of Darwin, it was practically impossible for enemy aircraft to reach our shores undetected. Depending upon the then prevailing weather conditions, some distances recorded were excellent.

On that night of 12/13 November, 1943, I was the operator on duty at 318RS, just a few miles south of Batchelor. I filled that role for the whole period of the time Japanese aircraft were over the area and eventually faded from the screen. It is an event which still remains vivid in my memory. We had become quite proficient at being able to identify the types of aircraft by their characteristic "blips" on the screen and it was most interesting to view the multitude of "blips" congregated in a small space when our fighters intercepted the Japanese.

That raid subsequently has had important political determinations. From that date, "operational service" within the North Western Area ceased and, of course, this decision has affected the issue of the Gold Card and other Veteran Affairs conditions.

I write this letter to you, wondering if any of your readers already have brought this significant event to your notice and can remember that night. I consider 12/13 November, 1943, a very important date in Australia's history.

Alan Cross [SA]

## ANOTHER MILESTONE IN WEDGETAIL PROJECT

*Minister for Defence Media Mail  
Tuesday, 4 November 2003*

Defence Minister Robert Hill today congratulated Boeing on another milestone in Australia's \$3.45 billion airborne early warning and control aircraft Wedgetail project. Senator Hill was commenting after the first of Australia's fleet of four AEW&C aircraft was powered up at Boeing's Integrated Defense Systems in Seattle, United States.

"The aircraft's power distribution system has been successfully installed and tested several months ahead of schedule," Senator Hill said. "Australia's new AEW&C aircraft remain under budget and on track to enter into service in 2007, providing us with a key air and maritime surveillance capability."

The Electrical Power Generation System distributes and controls power on board the Wedgetail platform to all aircraft and mission systems including: radar, navigation, communications, mission computers, displays and the flight deck. During initial ground testing the power is supplied externally, but when the aircraft is operational, power will be provided by specialised generators attached to the two engines.

**MEDIA NOTE:**

Images of the new aircraft are available at [www.boeingmedia.com](http://www.boeingmedia.com)

## HISTORY OF AUSTRALIAN RCM

Craig Bellamy is currently carrying out research into the early Australian involvement in Radar Countermeasures (RCM) in the Southwest Pacific Area (SWPA) during WWII. The organisation responsible for RCM was called 'Section 22' and was based in Brisbane in the AMP Building. He has been talking to RCM operators who served in the 90th and 380th BGs (USAAF). Amongst them are several ex RAAF RCM operators, primarily Dick Dakeyne, and an ex RNZN RCM operator, Pete Money. He is specifically interested in the early RCM operations carried out in B-24, Hudson and Catalina aircraft,

as well as by land parties from late 1942 up until the American RCM operators began to appear. While he has been able to find RCM people who flew in B-24s he has only found one who flew in Hudsons and, as yet, no one who flew in Catalinas.

One of the radar receiver sets used for RCM was called the SN2. It was designed by the Australian Radiophysics Laboratory (RPL) section of CSIR, then stationed at Sydney University. It was produced by Stromberg Carlson Radio. It is the equivalent to the ARC-1 built for the Navy and was officially listed as the "Navy Type SN-2".

I'd be very interested in contacting others with memories of any of these aspects of RCM. I can be reached at: PO Box 381  
GRAFTON NSW 2460  
Phone. (02) 6642 6363 (A/H)  
Email: [Craigb@hn.ozemail.com.au](mailto:Craigb@hn.ozemail.com.au)

## 313RS MORNINGTON ISLAND

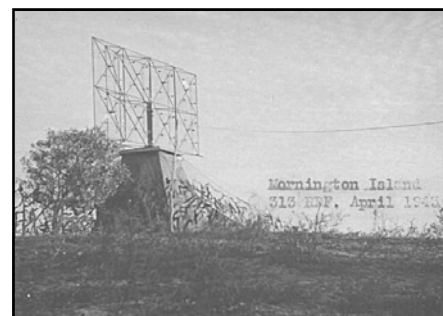
Dr Eric Unthank would like to hear from other members who served with 313RS on Mornington Island.

The unit was located at Mornington Island from March 1943 until June 1944. Mornington Island is on the west coast of Cape York and was part of the chain of stations covering northern Queensland.

Eric can be contacted at:

18 Tyrrell Avenue  
BLACKBURN VIC 3130

Or by dropping a line to Radar Returns.



313RS Mornington Island  
April 1943

## FADED ECHOES

*If you can provide further details on anyone mentioned in this column, please send them to Radar Returns so that their history can be accurately recorded. [Editor]*

### **Gerry Linnehan Died 02/09/03**

Gerry was a post war RadTech and he passed away at Karana Downs QLD, from a massive heart attack. He was buried in Ipswich on 05/09/03. If you wish, you may contact Gerry's widow Joy on (07) 3201 0679 or via email on [linnehan@gil.com.au](mailto:linnehan@gil.com.au). Gerry was one of nature's gentlemen and will be sadly missed by all who knew him. *Howie Campbell [NSW]*

### **Fay Wilson (nee Ottoway) Died 19/07/03**

It is with sadness that we note the passing of Fay Wilson. During WWII Fay was a radar operator on several Radar Stations, including 208RS Swansea, 228RS Rockingham, 144RS Cannington and the Fighter Sector at Mt Lawley. Fay was an active member of the RAAFA(WA) and was elected as President of the WAAAF Branch for two years as well as being a committee member for another four years.

After she moved to live on the Air Memorial Estate at Bull Creek, she became an ardent bowler, was an active member of the Residents' Committee and took a great interest in the RAAFA Aviation Heritage Museum.

For some years, Fay was the main liaison between WA and the Air Defence Radar Branch in NSW, particularly in respect to the early Reunions. She rounded us up, distributed vital information and made sure that we had sent our application forms, paid our deposits etc!

She was a foundation member and the main instigator of the WA Radar Group, which was formed following the Bendigo Reunion.

Sadly, declining health over several years precluded Fay from attending further reunions and our little group has missed her worthwhile contributions and cheerful presence.

Fay is survived by husband Colin, four daughters, nine grandchildren and one great grandson.

*Ray Sewell [WA]*

### **Vince Gertzel, Died 22/08/03 [Aged 85]**

Vince grew up in the WA goldfields during the depression period. He was apprenticed as a hairdresser and set up his own business in Wiluna. However, he was not impressed with his trade and enlisted in the RAAF during WWII and trained as a Radar Operator. His first posting was to 32RS at Rottneest with the original team. This was not to last - he subsequently served in New Guinea and may have been part of the occupation forces in Japan.

Unfortunately no further details of his service are known.

He joined with the WA Radar Group in 1995 following an announcement that it was intended to mark the site of 32RS with a Plaque. This occurred on 19 October 1995.

Subsequently he attended most of the Radar Group meetings but, being reticent and modest, never revealed much of his life story.

In peacetime he qualified and worked as a Telecommunication Technician in the PMG. He married his life time partner, Carrie, in 1944 who survives with two sons.

Sadly missed.

*Ray Sewell [WA]*

### **William J. Gravell Memories**

I served with Bill on Gabo Island and he was a great bloke. If you have a copy of Morrie Fenton's book on Gabo, there is picture on the bottom of page 19. I am the fifth from the left and, on page 27, Bill is second from the left. On page 27, Christmas 1942, I am leading figure on left and Bill is next to me. I enjoyed my stay on Gabo and the crew, in my time, were a great mob of men.

*B.F. 'Snow' Cottam [Qld]*

Bill Gravell was a lecturer at the RAAF College, and subsequently at the RAAF Academy, both at Point Cook. Apart from his normal lecturing duties, Bill had a great interest in the history of war and had established a substantial library of books on the subject. A wide spread

of friends and acquaintances often sought his opinions on related matters, to the extent that I think he could have been considered an authority on the subject.

I was present at the formal Farewell Dinner to Bill, held in the Officers' Mess, Point Cook. All present at the dinner received a set of cuff links and dress buttons, bearing an enamelled replica of the RAAF Academy crest. The Point Cook airfield had rarely seen such a collection of aircraft as those which flew in a day or two before Bill's dinner. They arrived for service, or had a malfunction, or were required for some research project, or provided some excuse which the authorities didn't believe or were not prepared to check up on.

Bill had lectured to Courses 1 to (about) 30 at the time of his retirement, and only one course was not represented at 'his' dinner, and this course apologised for their non-attendance.

Certainly a legend; Bill probably knew more past and present officers in the RAAF, than anyone else in the air force.

*Dr Eric Unthank [Vic]*

### **'Tweedie' Svenson Memories**

Here was a real character. I did not know Tweedie during the war but through our teaching pursuits after the war. Before Tweedie went to Maryborough, he served as Science Master at the Mitchelton High School. He was a most accomplished chap and, apart from his ability in Radar and Ham Radio, he was an accomplished pianist. Whilst studying at Uni he also attended the Conservatory and studied the piano. He and his wife, Pam, lived in Gray's Road, Gaythorne and he set up a Ham Radio station there. They had three sons.

At high school, as staff, we socialised frequently and Tweedie would always entertain at the piano when one was available. From 'Mitchey' he went to Maryborough. He was a top bloke and a good friend.

*B.F. 'Snow' Cottam [Qld]*

**Edgar Harold (Eddie) Collon****Born 27/11/1920****Died 28/12/2002**

Eddie was my closest mate in the RAAF. We served together from the time of our original training at No 1 WAGS Ballarat from July 1941. When the Japanese entered the war we were remustered as Trainee Radar Operators and left Richmond in March 1942 to take an experimental MAWD set to 103RS at North Stradbroke Island. In July that year we went to 26RS at Cape Cleveland east of Townsville and in December to 305RS in New Guinea. Eddie left 305RS on 28 February 1944 on posting to 337RS in the Admiralty Islands. After a short stint in Australia he was posted to 29RS Port Moresby until his discharge on 1 October 1945.

Before the war he had his own business as a French Polisher but, on return to civvy life, he saw the future in modern electrical appliances and established a successful service company. We had many happy times together in the post war years and our wives became good friends. He died from Prostate Cancer.

*Frank Coghlan [NSW]***Sir Bernard Katz Memories**

I was saddened to hear of the passing of F/O Katz who joined 335RS for the assault at Arawe, New Britain in December 1943. He was a private man, of course deeply intellectual, and he never pulled rank but bucked in and pulled his weight with all the crew, even helping to dig out the radio and plotting board shelter B a hard man to forget.

*Athol Cottrill [Vic]***Valda Small****Born 22/11/1922****Died 26/11/2003**

Valda Elaine Small (nee Prowse) died in a Melbourne hospital after a long period of failing health. Valda joined the WAAAF in September 1942, took part in No 47 Radio Ops Course at 1RS, and served on 7FS (Preston), FHQ Records, 24RS (Caloundra), 42 Radar Wing (Townsville), 103FCU (Townsville), 136RS (Alligator River), and 2RIMU (Townsville). Among her post-war

activities was a stint as an air hostess. She took part in most of the reunions, from Canberra in 1988 to Adelaide earlier this year, and served as a valued member of the committee of RAAF Radar Veterans. She will be sadly missed, not only by her two daughters and son, but also by the many of us who have come to know her in recent years and to admire her spirit.

**Vale**

It was with deep regret that we have learned of the death of two Members of the WWII RAAF Radar Organisation namely: George Hodgson of Killara and Alan Every of Lindfield.

These men had much in common, they not only served their country in its hour of greatest need, but succeeded well in their chosen post war vocations and together with their spouses, supported our Branch activities over many years both local and national. They will not be forgotten by their Radar Friends and Colleagues who like their families, are thankful for their lives. Our records show that George and Alan served on Radar units located in Australia as well as isolated places in the New Guinea Theatre such as the Trobian and the Admiralty Islands. George served on 336 and 54/101 as a Radar Operator and Alan on 345, 14 and 10 as a Radar Mechanic. It is notable that George lived to become a nonagenarian. We extend both our deepest sympathy and good wishes to Lorna and Margaret respectively. Both men leave behind loving and supportive wives and families. We have also been advised that Frederick Douglas Scott of Wauchope NSW passed away earlier this year. Little is known of Douglas except that he joined our Branch in 1999. George joined us in 1983 and Alan in 1988. LEST WE FORGET.

*Walter Fielder-Gill [NSW]***Memories of C.J. Pratt & Frank Hocken**

To all of us he was 'Jack Spratt', a great fellow and a skilled Radar Mechanic. We were at RDF School together and were then posted to 20RS, Tomaree. As a Radar

Operator I spent many an enjoyable shift with Jack. He was posted to 343RS and I went to 1RPP at Townsville on route for 28RS on Fitzroy Island off Cairns. From 28RS I was subsequently posted to 151RS (GCI) in Merauke where I served with Kel Hutchence. From there I went to 26RS at Cape Cleveland.

While I was at 20RS Tomaree I was met Merv Clark and we have remained friends ever since. Merv also mentioned Frank Hocken, a FDMT/diesel and his skill in servicing and maintaining the unit's alternators. Late in 1977 I was appointed Superintendent of the South Burdekin Water Board in Home Hill Qld (site of 211RS). My opposite number as Superintendent of the North Burdekin Water Board was Frank Hocken, a very capable man with a very high order of management skills. Frank retired in 1979 and moved to Bowen where he passed away. His widow lives in Bowen and she is in her early 80's and is not very mobile but still self supporting. I am still in contact with her.

*Pat Toohey [Qld]***Late Notification**

Brian Fox (FOXY), a post war Radar Plotter, has passed away and his funeral was held on 9th January at the Beresfield Crematorium.

*Greg & Lyn McKenzie [NSW]*

MPS 14 Height Finder - 114MCRU Butterworth 1963  
LAC Howard Campbell & LAC Gil Grieve painting  
(Howard Campbell)

## DARWIN REUNION OFF!

The reunion planned for Darwin in May/June of 2004 has been called off. Though the number of expressions of interest was about as high as could have been expected, an analysis of the responses showed that there were good reasons to believe that the final tally of participants would have been disappointingly low, especially as the costs of transport and accommodation would have been high. Coupling this with the lack of a reasonable number of radar people in the area on whom to call for local knowledge and assistance, and the shortage of time in which to organise the many details of such a venture, the ad hoc joint planning committee representing the two sponsoring bodies, the Victorian RAAF Radar Association and the RAAF Radar Veterans group, decided that the proposal was not viable. Letters to that effect have been sent to those who registered their interest.

However, there is still the plaque at the Cenotaph in Darwin which has not been unveiled. A suggestion has been made as an alternative for those who might like an excuse to be in Darwin during the week which had been proposed for the reunion. On Thursday, 3 June 2004, a gathering of such people, augmented by any interested locals and perhaps by some serving RAAF people, might take part in a simple unveiling ceremony for the plaque, to be followed by a meal, be it lunch or dinner.

Anyone who might be interested in being involved in such a function is asked to make contact with:

Alex Culvenor  
(RMB 444,  
Newstead, Vic 3462;  
Phone: 03 5476 2288 or

Warren Mann  
39 Crisp Street,  
Hampton, Vic 3188;  
Phone: 03 9598 2193;  
email: [whcmann@optusnet.com.au](mailto:whcmann@optusnet.com.au)  
This is so that we have some idea of the numbers likely to be present on which to base a booking for the meal.

Two providers of accommodation have offered special deals. They are

both within easy walking distance of the Darwin RSL Club (27 Cavanagh Street) which is likely to be the gathering place for those taking part. They are:

Mirambeena Resort,  
64 Cavanagh Street,  
Darwin, NT 0800,  
Free phone for reservations:  
1800 891 100,  
Contact: Nataly Doles; and;  
The Metro Accommodation,  
21 Cavanagh Street,  
Darwin, NT 0800,  
Phone for reservations:  
08 8942 0436,  
Contact: Sylvette O'Dowd.

Since this is into the peak season in Darwin, it is recommended that reservations should be made as soon as possible.

The RAAF Radar Veterans group is still considering mounting one more reunion, to be held in Victoria in the autumn of 2005. Watch this space for more details, possibly in the next issue of *Radar Returns*.

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## RAAF MARINE SECTION

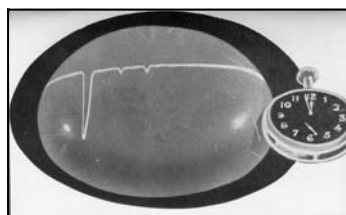
Les Jubbs is a keen recorder of RAAF history and, as well printing his histories, he has made them available via the Internet.

If you would to have a look at Les's work, go to the following World Wide Web address:

<http://members.iinet.net.au/~lesjubbs>

His book on the RAAF Marine Section includes a piece regarding how the Radar Units were transported to isolated regions and then supplied with personnel, equipment and supplies.

**Please Note:** There are **NO FEES or Charges** to down load any of the books on this site.



**First radar echo recorded in the UK**

## RAF AIR DEFENCE RADAR MUSEUM NEATISHEAD, NORWICH UK

The NSW Air Defence Branch first made contact with the RAF Air Defence Radar Museum in April 2001 with an offer to send them copies of the books and publications on RAAF radar. This offer was gladly accepted by them and, to date, 38 books, tapes etc about RAAF radar have been sent. This material were generously donated by the various authors or, in some cases, by the NSW Air Defence Branch.

Prior to this contribution, the museum did not have any information about RAAF radar. In one of the early pieces of correspondence they stated that, before our donations were received "...the Australian radar world had been closed to us". The museum is now of the opinion that it has more information about RAAF radar than any other organisation in the UK. In a recent letter, the museum said "... We had an Australian gentleman visit the museum about two weeks ago and he was astonished at the size of our RAAF radar collection – all thanks to you."

We are still looking for more material to send to the museum. If any reader has one, or more, of a book they are prepared to donate to the museum, please contact Ted Dellit to make the necessary arrangements. If you contemplate visiting England in the near future and would like to visit the museum, Ted can also advise you and how to get there.

To date, the traffic in publications has been mostly one way but the museum has sent the Branch a couple of books and details of Japanese radar in World War II from previously classified US sources. We also receive their quarterly newsletter.

Ted can be reached at:  
Ted Dellit  
3/29-31 Telopea Avenue  
Carringbah NSW 2229  
Ph: (02) 9525 8490

## HORN ISLAND ARTILLERY 1942 - 1998

Horn Island has only slightly changed from the days of Bofors guns, 3.7 inch guns, and the 18 pounder guns which were the backbone of defence for the Torres Strait during World War II. The 34th and 35th Australian Heavy Anti Aircraft Battery, the 157th Light Anti Aircraft Battery, and the Coastal Defence guns, with their radar, at Millman Battery and Goodes Island Battery were the core units of the Artillery Defence for this region.

The 34th Aust. AA Bty and the 157th LAA Bty were located on Horn Island, perched strategically on hills, either protecting the airstrip or the ocean channels. The 35th Aust AA Bty was stationed at Jacky Jacky airstrip, which is on Cape York, defending the northernmost tip of the Australian mainland. The Coastal Defence guns of Goodes Island, Millman Battery, and Turtle Battery were located at Goodes Island, Thursday Island and Hammond Island respectively.

The 34th and 35th Aust AA Bty arrived on board the "Ormiston" on the 14th October, 1942. The 34th Aust AA Bty was sent to Horn Island, while the other unit was sent, a couple of days later to defend Jacky Jacky airstrip on Cape York. Both units were equipped with 3.7 inch Anti Aircraft guns on static mountings. The 34th Aust AA Bty moved to Horn Island with eight guns, installing four at Double Hill, and four at Kings Point, on the north eastern corner of the island. Prior to their arrival in October 1942, the 104th Battalion (US Army) had provided anti aircraft defences on the island. This unit assisted the 34th Aust Hvy AA Bty in the preparation of their gun positions. The 34th Aust Hvy AA Bty was commanded by Major T.C. Rusden and remained on the island until 1944.

The 35th Aust Hvy AA Bty set up their gun positions at two sites, No.1 Section to the north of Jacky Jacky airstrip and the other, No.2 Section to the south. They were to provide anti aircraft defence for Jacky Jacky

airstrip, some 14 km from where they landed at Red Island Point. They remained here until February 1943. The 157th LAA Bty arrived during October 1942, to be stationed on Horn Island. They arrived on the "Ormiston" with twelve 40mm Bofors guns. Nine of these guns went to Horn Island to provide anti-aircraft defence for the airstrip, while three went to Thursday Island. The three on Thursday Island later went to Goodes Island for protection of the installations there.

The arrival of these anti aircraft units required the establishment of a command structure. The Headquarters of the Torres Strait anti-aircraft defences was established in October 1942, under the command of Major T.C. Rusden. Initially this was located on Thursday Island. An Operations room was established on Horn Island in the early part of 1943. The defences of Horn Island were again improved with the establishment of a GL radar used by the 34 Aust Hvy AA Bty on Horn Island.

Two 18 pounder Mark 4 guns were also situated at Kings Point, having arrived on Horn Island in December 1942. The objective of these guns was to provide close defence of the northeast approach to Horn Island and the Endeavour Strait. These guns were transferred to Goodes Island in October 1944. They were manned by members of the 2/3 Field Regiment. The men from their respective units had firstly to construct the gun pits to house the weapons from their units. The islands upon which they were stationed are rock, which meant that digging through the island epidermis was hard and long work. They would work for 20 minutes on digging, and then have 40 minutes off for resting. There is no fresh water on Horn, Goodes or Hammond Islands, therefore they were rationed to one canteen per man per day. Working in the heat without proper water supplies would have been extremely taxing, on both mind and body. However they did it, they completed their duties and the guns were installed. Today, if one walks around Horn Island, you can still see these

gun pits, upon which the men worked so hard to install.

At the Double Hill and Kings Point sites the four large gun pits, which once housed the 3.7 inch guns, are now silent. The concrete is firm, the magazine areas clear, the mountings now covered with soil, they still stand there, as a testimony to the men who once manned them and to the guns which once writhed and recoiled to their masters' wishes.

The magazine bunkers stand like giant building blocks, knowing that no more ammunition will pass through those walls, the command posts lie quiet, with no men, maps or commands to be issued from them again.

The gun pits of the 157th LAA Bty lie on top of the hills, looking over the airstrip. The Japanese Zero's have been replaced with Qantas Dash 8's and small commercial and private aircraft. The gun pits of this unit watch over the ever-growing airport, which was only a dirt strip when they were installed.

Due to Horn Island's slow commercial development, a great deal of the artillery evidence is still in existence around the island.

The gun pits, the individual unit campsites with Kitchen, Mess, Regimental Aid Post, Q Store etc still lie in the bush. When the veterans of these units return to the island, the author guides them back in time to visit the sites of their service once more. To walk in their footsteps is a privilege.

Members who are interested in visiting this idyllic spot should contact the "Gateway Torres Strait Resort" at 24 Outie St, Horn Island, Qld. or Tel: (07) 4069 2222 / Fax: (07) 40692211 for further details on transport arrangements and accommodation rates.

*David Davies (COL rtd)*

### 13 RADAR STATION 1942 - 1946.

The Japanese submarine I-25 located just off Cape Wickham lighthouse at the northern end of King Island, had launched the Yokosuka E14Y float plane approximately two hours before dawn on Thursday, 26 February, 1942. Using the Cape Otway and Point Lonsdale lighthouses as navigational aids, Warrant Flying Officer Nobuo Fujito and Petty Officer Shoji Okuda flew their reconnaissance mission over Laverton RAAF Base, Melbourne and the docks, then back down Port Phillip Bay, past Cape Schank lighthouse and back to the waiting submarine.

Fujito had previously flown over Sydney and would go on to carry out reconnaissance missions over Hobart, Wellington, Auckland, Suva and, with two 100 kg thermite incendiary bombs, attempted to set fire to the Siskiyou national forest in Oregon, USA on the 9 September that year. His historic flights might have come to an abrupt end in the skies over Melbourne if Victoria's first Radar Station had been operational.

In 1942, Britain upgraded its coastal radar system and, as Australia did not possess radar, a number of these superseded British units were shipped to Australia. 13 Radar combined an Australian receiver with an English transmitter and was one of the first of these units to be established on the Australian mainland and the first RAAF unit in Victoria.

Built amongst the sand dunes and tee-trees on top of the cliffs of Victoria's most western promontory, Cape Otway, the 35 centimetre thick concrete walled blockhouse [known as a 'doover'] was divided into three rooms to house the wireless telegraphy operator, the radar and its operator. This blockhouse also served as an air raid shelter. Power was supplied by two Ford V8 engines with direct drive to a 240 volt generator housed in an underground concrete bunker. Two huts to house Commissioned and Non Commissioned personnel, shower and latrine facilities and a mess hall

were built close to the blockhouse and water from a spring was supplied by a small windmill. 13 Radar became operational on the 27 June 1942 and, with 14 Radar, established at Wilson's Promontory, were able to detect shipping and aircraft movements entering and exiting Bass Strait between Tasmania and the mainland. Other radar stations in Victoria were 15 at Metung and 16 on Gabo island.

Leading Aircraftsman Eric Mittag [1944] describes the operation of the radar unit.

"The radar operator would manually sweep [via a small wheel attached to the gearing] the antenna through 360 degrees looking for blips above the 'cathode' ray oscilloscope trace line on his screen. If an aircraft or ship was detected, he would focus the antenna and pass range and bearing to a second radar operator. These co-ordinates were then plotted on a grid and passed on to the wireless/telegraphy operator for transmission to Headquarters in Melbourne.

If an aircraft was detected, a series of coded short and long sequenced blips transmitted by the aircraft would appear on the bottom of the operators screen. This code was known as IFF [identification friend or foe]. If no IFF was detected, an emergency signal was transmitted to Headquarters and further action would be taken."

Postings to 13 Radar were usually seen as a rest assignment and, because the station was an early link in Australia's new radar program, it was ideal for new personnel to learn the operational techniques of the new system. During winter, the station would shut down when the gale force winds reached Force 6 or more. The antenna needed constant cleaning due to sea spray from the sea below the cliffs. In the mess hall, a billiard table on loan for the duration from the local hotel and books provided the basic entertainment. A vegetable patch also took shape, with cliff climbing, swimming and fishing providing a more challenging recreation during the warmer months. The most sought after activity was

the chance to go into the nearby town ship of Apollo Bay. A local dance, a movie and of course, the pub.

Naturally, the personnel couldn't have everything their way. Inspections, machine gun, rifle and grenade practice with competition shoots and more inspections to keep everyone on their toes. Many enjoyed hunting, if one could call shooting rabbits with a 303 hunting nor would there be much left of the unfortunate rabbit for the cooks stew-pot.

The reconnaissance flight of Warrant Flying Officer Fujito and Petty Officer Okuda over Melbourne may have been four months too early for 13 Radar to have alerted HQ of an enemy aircraft and perhaps the float plane being shot down by aircraft from the RAAF Base at Laverton or by anti aircraft guns located at Williamstown but Korvettenkapitan Heinrich Timm was to stir up some real action, for 24 hours at least.

Timm and his crew of the German U-Boat 862 had been looking for targets of opportunity near Cape Jaffa, approximately 250 kilometres south-east of Adelaide. On the morning of the 9 December, 1944, high seas, rain squalls and wind prevented the sound detection of the approaching Greek freighter *Ilissos* until it was almost too late. Unable to get the U862 into a submerged attack position in time, the Korvettenkapitan decided to surface and attack the freighter from astern with his flak weapon not his deck gun until he was closer. This decision was a tactical mistake as the freighter was still out of range of his gun. His gunfire was answered by the rear deck gun on the freighter which forced the U-Boat to crash dive to avoid being hit. The *Ilissos's* call for help started the largest submarine hunt ever carried out in Australian waters.

13 Radar went on a 24 hour alert, as it was suspected the U-Boat would attack shipping in Bass Strait. The U-862 managed to slip away and sail down the west coast of Tasmania, past Hobart and on to New Zealand sinking two liberty ships enroute. This was the unit's only real

emergency during the war. The station continued operations until the 16 June 1946 and the unit was disbanded two days later after four years of important but uneventful coastal surveillance.

The concrete blockhouse and generator bunker still stand as a stark reminder of a war from long ago and can be seen by visitors who come to see the Cape Otway lighthouse.

*Ken Wright [Vic]*

### 13 RADAR STATION

#### APOLLO BAY

On the 18/11/1999, Anne and I were meandering along the Great Ocean Road, and we drove into the Apollo Bay light house for a look.

Wandering around the site we came across a sign "WW2 Radar Site"; so I had to check it out. We eventually found the blockhouse that housed the radar. Inside, there is steel table which supported the turning gear for the "Doover". At the closure of the site, it looks like that the turning gear was cut off, level with the top of the roof.

Being an adventurous 61 year old (going on 10), I decided to see what was on the roof of the block house. This came with the warning from "she who must be obeyed", saying "I don't think you should climb up there." Male pig headedness saw me squirming up through the rusted steel work until I arrived on the roof. What an incredible view out over the Southern Ocean.

After taking some photos of the light house etc, I saw that the Ranger had noticed me on top of the block house. I decided to exit the roof, but being a rather chubby chappy, I was unable to climb back through the hole in the roof. What to do? If I jumped to the sandy ground (about 12 feet), there was a chance I would break my ankle, thus ending our holiday. Ten minutes later the Ranger arrived and said to me, "Do you know sir that you are probably the first person to get up there since the war. Can you get down OK?" I was suitably embarrassed and said no.

He then left to get a ladder, chuckling to himself I might add, as he went .

He arrived back with the ladder and I safely descended to ground level.

For the next couple of hours we were there continuous reference was made to "the things these older people get up to etc etc."

Nevertheless we had a lovely time at Cape Otway, and I can understand why the entrance to the block house is now closed off with steel mesh.

*Howie Campbell [NSW]*

### BOOK REVIEW

#### TOP SECRET EXCHANGE

*by David Zimmerman*

Published by McGill-Queen's University press  
(ISBN 0-7735-1401-5)

This book is extremely fascinating and added another dimension to my knowledge of WWII. It is recommended for those who are interested in the back room manoeuvring as well as the technical and operational side of things.

The author is an associate professor of military history at the University of Victoria in Canada. His coverage of the 1940 Tizard Mission highlights the importance of technology in WWII in a much wider sense than has been portrayed in other books. My previous reading was of summaries that concentrated on the magnetron and other radar matters but the scientific exchange was much greater.

Sir Henry Tizard was an eminent scientist who had become a scientific manager and administrator. He was the master of 'sorting out the wheat from the chaff'. Regrettably he had fallen out with Prof Lindemann, Churchill's adviser, whose desire it was to remove Tizard from London. Elsewhere it had been reported that Taffy Bowen was at odds with A.P. Rowe, the administrator in charge of TRE, the Telecommunications Research Establishment. Tizard rescued Taffy Bowen by taking him to the USA on the mission.

The British situation was precariously grim. The United States was a 'friendly neutral' but not an

ally. Churchill vacillated on the details but he wanted the Norden bombsight plus other items. Almost in desperation the Mission offered, without reservations, details of the 10cm magnetron, radar, operational experience, anti aircraft gunnery, fire control and searchlights, defence against low flying aircraft, proximity and influence fuses, aircraft and aircraft engines including the jet engine, and IFF.

It has to be remembered that the famous Radiation Laboratory in the USA can be claimed to be a direct result of the Tizard Mission. Dr E G (Taffy) Bowen installed a Mk II ASV in a Catalina, an AI in an A20 and the Americans were over awed by it all. To say any more may spoil the overall story.

*Ed Simmonds*

#### REVIEWS AND COMMENTARY FROM THE PUBLISHER:

David Zimmerman traces the origins of the Tizard Mission with Britain's initial attempts at technical co-operation in the First World War and unsuccessful efforts to restart it in the late 1930s. He highlights Winston Churchill's prominent, yet remarkably inconsistent, role in the story and the often-tumultuous diplomatic relations with the Roosevelt administration, and shows how important British generosity was to the eventual success of the mission. Among the secrets Britain revealed was the cavity magnetron, which made microwave radar possible. Zimmerman reveals how the Tizard Mission established an effective system of teamwork for Allied technical and scientific co-operation, a teamwork that proved to be a crucial factor in Allied technical superiority. He demonstrates that the mission marked the beginning of the much longer story of Anglo-American scientific and technical co-operation, serving as a model for the international technical co-operation that continues today in organizations such as NATO.