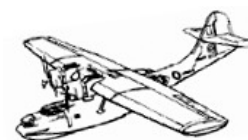


# RADAR RETURNS

*Signals & Echoes For RAAF Radar Veterans*



## EDITORIAL

As has been mentioned in the last two issues of *Radar Returns*, this will be the last hurrah for the printed version of this newsletter. I must apologise for its tardiness – I had intended that it should appear about the middle of September. Unfortunately weaknesses of flesh associated with age have had the effect I had anticipated when deciding to retire the printed *Radar Returns* - they put me out of action for several weeks at the critical time. The time line for this final issue has been changed to October and as I write this I am still hoping to achieve that deadline.

My timing in deciding to quit has, unhappily, proven only too appropriate. Not only have I been served with intimations of my own mortality, but sadly we have lost the person on whom I have leaned most heavily. Ed Simmonds, who had been in poor health for several years, died on 31 July, a few days after a heart attack. Typically, in the weeks before his passing I had had several communications from him with positive suggestions for inclusion in the final issue of RR. One of these was his contribution to a joint article he and I had agreed to write on the life and significance of Alfred George Pither, the father of RAAF radar. The completed article appears on p 5.

With the warmest of thanks I dedicate this issue to Ed in sincere appreciation of his unfailing support throughout my period as editor.

I know that I am only one of many who will miss him terribly for his knowledge, industry and friendly generosity where it has been most needed. My tribute to him begins on p 3.

As most readers will remember, *Radar Returns* was launched by the late Peter Smith. As a Wing Commander and CO of No 3 Control and Reporting Unit, the principal provider of radar services to the RAAF in the 'nineties, he came to appreciate the importance of the history of the origins of RAAF radar in WWII in developing a proper understanding of current techniques and procedures and in the training of recruits. Having played an active part in organising a reunion of veterans of that conflict at Nelson Bay in August 1995, Pete realised that, although a start had been made by several veterans to collect and publish individual memories that might contribute to a coherent history of the use of radar in the RAAF, there was still much that could and should be done. In fact, an important opportunity to record the history of significant factors in the victory in the south-west Pacific was in danger of being lost as time carried off the remaining primary sources of that history, the veterans themselves, a substantial sample of whom had attended the reunion. He reasoned that what was needed was a medium of communication through which veterans could be stimulated into taking the time and trouble to record their experiences and which might supply an outlet for their publication, while at the same time promoting in serving members an awareness of the story of RAAF radar and its significance.

Sadly, the veterans who led the charge in recording wartime memories are now largely unavailable to continue the project. The three principals among them have been Ed Simmonds, Norm Smith and Morrie Fenton. Norm died in early 2008 and now we have lost Ed; Morrie, unfortunately, is in poor health and no longer able to undertake major projects. Of the dozen or so veterans who have written memoirs of particular radar units or of their service in RAAF radar generally, at least eight have passed away. Most of the rest are in failing health. The torch is being carried now by several younger people who, though not themselves involved in

radar, have for one reason or another developed an interest in publishing histories of particular wartime radar units, and by a few valiant veterans who are preparing articles for posting on the *Radar Returns* website for the benefit of posterity. I sincerely hope that more in each of these groups will come forward.

### This Issue

Few will doubt that the Royal Australian Air Force played a significant part in the successful defence of Australia against the Japanese in WWII. The names of many of its flying heroes became household words during the war and some of them have resonated through our subsequent history as the names of air bases and the like. For various reasons, however, the significant part played by a major segment of the RAAF is largely unrecognised by historians and the public generally, and little understood even within the service itself. A principal reason for this is the fact that throughout the war and for some time thereafter the very existence of this important segment was veiled in the utmost secrecy. To a considerable extent, the wartime bureaucracy of the RAAF, most of them trained as pilots, either did not know about radar or did not want to know about it. However, radar came to be known as "the invention that won the war and changed the world", with even the brilliant pilots being recognised as ineffectual without it.

The fact that the force of this invention was applied so effectively in the defence of Australia can be attributed very largely to the foresight, energy and determination of one man, and Ed Simmonds and I tell his story in this issue.

Some of the remaining space has been devoted to the part that will be played in replacing the printed newsletter by the internet and, in particular, by the website we have established on it.

The spirit of *Radar Returns* will, I earnestly hope, live on in our website,

*Continued on page 9*

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Material for inclusion on the website will be welcomed, and, with any other correspondence, should be addressed to:

The Editor, Radar Returns  
39 Crisp Street, HAMPTON VIC 3188  
Phone: 03 9598 2193  
Email: [whcmann@optusnet.com.au](mailto:whcmann@optusnet.com.au)  
Website: [www.radarreturns.net.au](http://www.radarreturns.net.au)

**FADED ECHOES**

*The deaths of the following people have come to our notice since the publication of the previous issue. Tributes, where available, follow this listing. If you can provide a tribute or further details on anyone mentioned, please send them to Radar Returns for inclusion in the entry on the website.*

**Ronald Leslie Bowra**

7/04/1925 - 24/04/2009  
NSW; LAC Rad Op (MO82)  
40RS, 57RS, 316RS

**Joyce Thelma Chave**

31/10/1922 - 9/12/2008  
NSW; ACW Rad Op (WO32)  
58RS & short postings in Brisbane & Townsville

**William Charles Hammer**

4/04/1915 - 3/09/2009  
NSW; F/Lt Rad Off (O10G)  
308RS, 59RS, 319RS, 208RS

**Richard Henry Hume**

15/02/1923 - 2009?  
Tas; LAC W.Op

**Gordon Dudley King**

27/07/1924 - 21/03/2009  
Qld; LAC W Op  
311RS

**Robert Philip Loh**

16/05/1923 - 29/07/2009  
NSW; F/O Rad Off (B3, 19G)  
316RS, 55RS, 211RS

**John Albert (Jack) Messer**

17/10/1920 - 18/03/2009  
SA; F/Sgt Rad Mech (M6G)  
2MRU, 302RS, 1Rad Sc

**Frederick John Noblet**

3/02/1924 - 9/04/2007  
NSW; LAC Rad Op (MO77)  
151RS, 153RS, 347RS

**\*Edwin William (Ed) Simmonds**

12/12/1922 - 31/07/2009  
NSW; Sgt Rad Mech (M13G)  
23RS, 209RS, 210RS, 224RS, 44RWg,  
1RIMU

**Gordon Eric Thomas**

5/10/1924 - 2/07/2009  
NSW; LAC Rad Op (MO88)  
337RS  
Founding Secretary, RAAF Radar  
Branch, RAAF A (NSW)

**\*David Pulteney Warford-Mein**

1/01/1922 - 27/05/2009  
Vic; F/O Rad Off (B4, O22G)  
43RS, 332RS, 16RS

**Charles Douglas Edward Woolams**

2/07/1924 - 12/12/2008  
NSW; LAC Rad Op (MO69)  
47RS, 48RS, 324RS

**Noel Wright**

13/04/1919 - 6/01/2009  
F/Sgt; Clk Gen  
20RS, Orderly Room Clerk

\* Tribute follows

**TRIBUTES****George Conomy**

17-12-1923 - 10-6-2007.

George won a 5-year bursary in Year 6 at Corowa N.S.W. and achieved 8 A's and Orals in French and Latin in Intermediate at Corowa High School. He was also Dux of his class (as were two of his older brothers in their respective years, a family record unlikely to be matched).

At Sydney Boys High School he obtained his Leaving Certificate and won a Teacher's Scholarship to Sydney University where he completed his 1st year in 1941, just before his military 'call-up'. He declined an offer of officer training and chose a Wireless Mechanics' course in the RAAF as a call-up was available before his 2nd year Uni course commenced. He trained as a Radar Mechanic - Ground. He rose to the rank of sergeant, serving on 311, 19 and 26 Radar Stations, and with 4RIMU where he did installation work on other stations in the Borneo area.

On demobilisation George returned to his university studies in 1946 and obtained a BA in 1947. He was granted permission to do an Honours year in 1948 and completed a Diploma in Education in 1949. He began his lifetime career as a high school teacher in NSW in 1950, becoming English and History master at several city and country high schools.

During this time George co-authored a series of books titled *Let's Enjoy Higher School and Matriculation English* which were accepted by the Department of Education for use in NSW high schools. In January 1965 he was appointed Inspector of Secondary Schools, in 1970-72, Staff Inspector, in 1973 Director of Properties (reflected in 1973 report of the Minister for Education). Later appointment followed as Assistant Director-General (Development) until his retirement at age 60. During this latter period George relieved as Deputy Director-General and Director-General for short periods.

As well as his BA (Hons) Dip Ed, George qualified for a Fulbright Fellowship, an award made to Americans

for study and teaching abroad and to foreigners for study and teaching in USA. Leave of absence was allowed by Dept of Education for George to do this in 1957.

In 1967 George was awarded an Imperial Trust Fellowship for 1967-68 and enrolled for a two-year course of study at the University of London. These awards were made annually to officers whose potential was such that they, and the employing Department, would gain the greatest benefit from training and experience overseas. The award was won in the face of Australia-wide competition. Records indicate that George relinquished the Fellowship in July 1967, following correspondence between the Public Service Board and the Dept of Education.

When George retired in 1983, he was appointed a consultant to the Catholic Education Commission of NSW and continued in that capacity for the rest of his life. In another retirement project, he organised a total of three tours of Borneo by RAAF veterans of campaigns there.

George was a strong and honourable man, widely respected, and a good friend. He is survived by his two sons.

**Note:** much of the detailed information on George's career was obtained, under the signature of Trish Kelly, General Manager, Human Resources, from the NSW Dept. of Education and Training whose assistance is gratefully acknowledged.

*Bob Balfour, NSW,  
Brother-in-law of George.*

**David Warford-Mein**

Born in Melbourne much the youngest child of financially comfortable parents, David was educated briefly in England then at Melbourne Grammar School, matriculating in 1938 having performed well in mathematics and science. He began a science course at Melbourne University before enlisting in the RAAF in 1942.

Posted to Sydney, he undertook training in radio physics under Professor V A Bailey, on completion of which he took officer training in Melbourne then radar training at Richmond NSW. After a brief stint as acting CO of 131RS at Ash Island, NSW he was posted to command No 43RS at Portland Roads in far north Queensland. After about a year at this remote location he was sent to command No 332RS at Tanah Merah, inland from Merauke in Dutch New Guinea. In this environment of heat, humidity and swamp, David contracted malaria and was posted south. After a short period in temporary command of 16RS at Gabo Island, and a time in Heidelberg Hospital, he was discharged in July 1946.

**TRIBUTES (Cont.)**

After his marriage to Christine Jackson in October 1946, he returned to Melbourne University to complete his degree in science majoring in chemistry and engineering. He worked as an industrial chemist in several Melbourne companies before becoming a brewer in a major brewery, from which he retired in 1983.

David was a quiet man with a good sense of humour and an unexpectedly sharp wit. In retirement he revived an interest in model railways and, despite his claimed lack of practical skills, he built a substantial system with hand-made stations, houses and landscaping using the Australian-made trains that he collected. He became an active member of the train club and eventually donated the proceeds from sale of his collection to provide a portable rail track for use at club displays. He also took an active interest in the local RSL club and enjoyed its social aspects. He died in a nursing home to which he and Christine had gone in 2006.

*Based on the eulogy given at his funeral by his daughter, Susan Sharpe.*

David and I met when we enlisted in the RAAF at Woolloomooloo on the same day. We remained friends throughout our training, our paths crossed occasionally during our later service, and after the war we studied at Melbourne University at the same time. In the hurley burley of families, careers etc, we met a few times then lost contact. I regretted this and was sad when I learned of his passing; we shared memories of some good times and some bad.

On behalf of the radar folk who knew David and appreciated his qualities, including Helen, my wife, and for myself, I express to Christine, his two daughters and the rest of his family our deep sympathy.

*Warren Mann*



Sgt Ed Simmonds

**Ed Simmonds**

It is with great personal sadness that I find myself writing a tribute to Edwin William Simmonds. This may seem strange, since I met him in the flesh only once – at Williamtown during the BLIPS reunion in August 1995, and then only for a few minutes when we were brought together by the late W/Cdr Pete Smith. But since then we have been in increasingly regular communication on a wide variety of matters of mutual interest, mostly to do with RAAF radar activities during WWII. Since I became editor of *Radar Returns* five years or so ago, our contacts have been constant and productive, and our relationship has firmed into a strong friendship. He has been, from the moment I took over, the most prolific contributor of articles and other material for the newsletter, a source of moral support and encouragement and has been outstandingly generous both materially and with his time. If my period in this chair can be counted a success, the credit for it must be laid in no small measure at the feet of Ed Simmonds.

Let me tell something of Ed's life, using information drawn from some of Ed's own prolific writings, from facts that emerged during the many long telephone talks I have had with him and from the eulogy his son, Christopher, delivered at his funeral and passed on to me.

Born in the Sydney suburb of Concord, Ed was an only child and grew up in a large house with an extended family of grandfather, aunts and uncles as well as his parents. His schooling was at North Strathfield Primary School and Fort Street High School. He passed the Leaving Certificate in 1939, secured a cadetship with the State Water Commission and started engineering at Sydney Technical College in 1940. Completing his second year as the Japanese joined the war, he enlisted in the RAAF. Having failed an eyesight test for air crew, he completed the wireless mechanics' course at Melbourne Technical College and was selected for the RDF mechanics' course at Richmond, NSW. There he took top place in Course 13G, after which he was posted to 23RS at Lytton Qld. From there he went to Darwin for a short stint at 44 Radar Wing before being posted to No 1 RIMU at Croydon in Sydney. Here he became something of a specialist in ACO equipment, being involved with the installation of 209RS (Benowa Qld), 211RS (Toorbul Point Qld) and 224RS (Darwin) as well as spending short periods on 207RS (Lilli Pilli NSW) and 208RS (Swansea NSW). Along the way he had been promoted to sergeant.

Towards the end of the war he converted to airborne radar and was discharged in October 1945, having recently married Nea Young, whom he had met during the war.

After the war, he returned to the Water Commission, completed his diploma with honours in 1948, and became Hydrographer in charge of the Riverina district early in 1949. Soon after, however, he accepted a job as Deputy Shire Engineer with Blaxland Council, based at Wallerawang, NSW, where he completed the requirements for appointment as a shire engineer. In 1952, he became the youngest shire engineer in NSW when he was appointed to Imlay Shire, based on Eden.

Though he enjoyed working in the Eden area, living there presented some problems for his growing family and he applied successfully in 1956 for the post at Campbelltown in outer Sydney. However he found the area uncomfortable and two years later he moved to the hills of Tumut Shire where during the next eight years he faced a number of interesting engineering problems.

In 1966, he decided to leave the municipal engineering field and accepted a job as a planning engineer at the Australian National University. This was at the beginning of a period of rapid university expansion and Ed found himself involved in some most interesting and varied projects. Among them were design and construction of geological research equipment, site planning for the university, a traffic survey, mechanical and other services in buildings, site services for the Anglo-Australian Telescope at Siding Springs and a major part in the construction of the 48-inch Schmidt Telescope. In 1968, he was appointed Chief Engineer with a staff of more than 100. The years that followed were crammed with interesting challenges and hard work. In 1977 he was sent on a ten-week tour of USA, Canada, Britain and Europe studying energy usage and conservation on university campuses. In retrospect, Ed described the years he spent at ANU as the best time of his life.

In 1979 Ed took early retirement from ANU and shortly after accepted an assignment in Samoa as an engineer representing Gibb Australia, a firm of consultants with major projects there. Here also he found interesting challenges, both technical and in human relations, and also had a trip to America as part of a delegation to the World Bank. With his wife, he thoroughly enjoyed living in Samoa but unfortunately, after about eighteen months, Nea was diagnosed with terminal cancer and they returned to

## TRIBUTES (Cont.)

Australia as quickly as possible to get treatment for her. Sadly, she died several months later.

After a short period in Gibb's Canberra office, Ed accepted a temporary assignment with ANU to oversee the construction of the rotating building for a new 2.3-metre telescope at Siding Spring which was based on a concept he came up with on his 1977 overseas trip. He was able to bring the project to a conclusion at an unexpectedly low cost in about eighteen months. During this time, he married Liz and they set up house near the project at Siding Springs.

On completion of the ANU project, Ed was offered a position in Hong Kong as Chief Engineer, Business Development, South-East Asia, for Gibb Australia. He was based there for about three years, with work involving a great deal of travel throughout south-east Asia. Liz typed his reports and looked after his office while he was away, though she was able to join him on some trips. A good deal of his work was in China and he made many visits to different parts of that country.

Back in Australia in July 1986, they settled on the Gold Coast, where Ed worked on several projects with Gibb Australia before retiring in June 1989.

In retirement, the history of RAAF radar in WWII became Ed's consuming interest. He teamed up with Norm Smith, whom he had first met on course in Melbourne, to gather, edit and publish in book form memories and anecdotes from people who were involved with RAAF radar during WWII, resulting in *Radar Yarns* (1991) and *More Radar Yarns* (1992). With help from Morrie Fenton, they made collections of WWII photos related to radar and published them in a series of 'pictorials' - *Pictorial I* and *Pictorial II* (1992) and *Pictorial III* (1993).

A little later, Ed and Norm wrote an "overview of Allied Air Warning Radar in the Pacific from Pearl Harbor to the Philippines Campaign". Published in 1995 as *Echoes Over the Pacific*, this work consolidated the historical significance of the earlier volumes.

That flurry of activity constituted the first sustained attempt to document the history of radar in this theatre of war operations, and was fully funded privately, with approaches to the AWM and DVA for subsidies having been rejected, apparently because the authors were not academic historians. It is reassuring to note that in more recent times, a Minister for Veterans Affairs has written to Ed acknowledging that *Echoes Over the Pacific* was a factual

record of events in WWII, the RAAF Historical Section (Department of Defence) has commented that ground radar is now the best recorded of any element of the RAAF in WWII, and the AWM has changed its attitude completely and is now very supportive of the 'amateur' efforts to record the wartime history of radar in the RAAF. "Simmonds et al" is now a common reference in relevant publications world-wide.

His final major project was to write a review, entitled *Technicalities and Generalities*, of the equipment used during the war, with some general comments arising from his research. In this he was assisted by the late W/Cdr (ret'd) Peter Smith, who was able to use his computer skills to publish the document with its large number of illustrations as a CD when it was realised that the cost of publishing a print version was prohibitive. The CD was issued in 2002. Though its sales were not great, it has been recognised as a reliable and comprehensive source of information on radar equipment in its early forms.



Liz and Ed Simmonds at Point Cook, March 1992

Ed was always most grateful for the help and support he had from others. Notable among them was the late Colin MacKinnon who, though not involved with RAAF radar at any stage and too young to have participated in WWII, undertook research for Ed's work and himself wrote several papers on RAAF radar history. Others that should be mentioned have researched and written about individual radar stations. These include, as well as Norm Smith and Morrie Fenton, Alec Culvenor, Frank Coghlan, the late Ted Dellit, the late Tony Craig, the late Hal Porter, Eric Unthank, Len Ralph and the late Alan Ferguson, as well as a number of others who have made useful contributions to filling gaps in the historical record.

The story would not be complete without mentioning the part played in Ed's work by his wife, Liz. In the twenty years or so of his active interest in radar history, Liz played a very significant part as researcher, filing clerk, publishing manager, proof reader, editorial adviser and secretary/typist.

He often spoke of her importance in his work, and would have been most upset had her part been forgotten. We owe her a huge debt of gratitude.

When the *Radar Returns* website was launched in 2006, Ed was delighted with the opportunity it provided of presenting his work to a much wider and enduring readership. With support also from Norm Smith, *Radar Yarns*, *More Radar Yarns* and *Echoes Over the Pacific* were the first documents to be archived on the site. Unfortunately, it has so far not been possible to upload the *Pictorials*, but work on preparing *Technicalities and Generalities* for archiving is under way.

In recent years, Ed has continued to write on radar history and associated topics. Amongst his unpublished work is a *Short History of RAAF Ground Radar* which is well advanced toward a place on the website and several other, mostly shorter, works which may also eventually be so published. And there have been a number of articles and notes from his pen published in *Radar Returns*, the most recent a joint paper with me in this issue.

Ed Simmonds was a man of wide interests. An engineer of distinction, a historian by osmosis, a staunch and generous friend, a man with a wicked sense of humour, a passionate honesty and a capacity for deep and lateral thought. He enjoyed his golf and loved his family. He will be greatly missed by the wider radar community and by all who knew him in person or through his publications and particularly by Liz and his family, to whom we express our deepest sympathy and our thanks for sharing him with us.

Warren Mann

## Ed Simmonds

Sadly Ed has gone to that great Doover in the sky of which he often spoke. I first met Ed in 1988 at the Canberra reunion - a meeting that became a rock-fast friendship. That continued with exchanges of photographs and articles for twenty years. Hopefully, these exchanges were of benefit to our historians. This contact continued every weekend with phone calls between NSW and South Oz. The same friendship soon included Liz and the result was the recording of history pieces which otherwise might have been lost forever to all radar folk. So our thanks are due to Ed and Liz for a richness of information which could have been lost - But Ed being a true historian gathered every bit that he could verify.

*A personal tribute to Ed and Liz from  
Morrie Fenton*

## A/CDRE A G PITHER, CBE (Retd) (16/10/1908 – 2/07/1971)

*Ed Simmonds & Warren Mann*

Among the New Year Honours for 1956 was an RAAF Postwar Honours List that included, as one of quite a number, Group Captain Alfred George Pither, receiving the Order of the British Empire – Commander (Military) with the bland citation “For his long and outstanding service and devotion to duty.” Although, at the time - more than ten years after the end of WWII - he again held the post of Director of Radar, there was no mention of the fact that this service and devotion to duty was in the fields of Signals and Radar and that this was the man who came to be known, quite justifiably, as ‘the father of RAAF radar’.

Born at Shepparton, Victoria, on 16 October 1908, George Pither was educated at the local Agricultural High School and gained admission to the Royal Military College, Duntroon in 1927. Graduating in December 1930 with the rank of Lieutenant, he was appointed to a commission in the RAAF and during the following year he undertook No 10 Flying Training Course, completing it with a Distinguished Pass. That was followed by an Initial Course for Unit Signals Officers, in which also he achieved a Distinguished Pass. In March 1932 he was posted to No 1 Squadron and subsequently during the next three or four years to other units for flying and general duties.

Then he was admitted to Caulfield Military Hospital with appendicitis and re-admitted because the operation had been botched and a swab left in his stomach; infection had spread and a kidney had to be removed, leaving him temporarily unfit for flying duties.

However, having been a radio enthusiast since his schooldays, he began to specialise in signals. In March 1936, he was sent to Britain to spend a year on the RAF Long Signals Course at Cranwell. Returning to Australia via USA, he had become the most skilled signals officer in the RAAF and was appointed to command the Signal Training School at Laverton with the rank of S/Ldr. He is reported to have found the School in a ‘parlous condition’ and, after attempting to reorganise and improve it, he arranged

for a new school to be built at Point Cook. In October 1939, shortly after the outbreak of WWII, he was transferred to RAAF H/Q for staff duties connected with signals training under the Empire Air Training Scheme. As part of this work he introduced a new curriculum for Wireless Mechanics and Signals training at Point Cook. [Ed Simmonds examined the notebooks of several wireless mechanics trained under this new curriculum and claimed that it produced mechanics who were better trained than those later attending No 1 STT at Melbourne Technical College, as Ed himself had done.]

In September 1940 Pither was selected to go to the UK to attend a special RAF Officers’ Course on radar, after which he returned via USA and Canada to learn about radar developments in those countries. Promoted Temporary Wing Commander on 1 January 1941, he married Australian-born Lillian Ball (died 1964) in Vancouver, Canada in April and arrived back in Australia in May 1941.



A/Cdr George Pither unveiling a plaque at Dripstone Caves, NT, 19 February 1967

Pither was appointed to head Section S7 of the Directorate of Signals, in charge of RAAF radar (then known as RDF). He had made a commitment which he felt needed immediate attention. In July, As he later reported:

“I had arranged with the RAF that the RAAF would undertake, if possible, the training of ground mechanics [and officers] for them in compliance with the British

request for Dominion personnel. I felt that this would ensure that a nucleus of ground personnel would be available in Australia if an emergency arose.” (Pither, 1946, p 7)

An early task was to establish a school for training officers and mechanics, initially for the RAF. No 1 Radio (later Radar) School was officially formed on 4 August 1941, though the first course of 23 mechanics had already started on 29 July. The first course of six officers began on the day of formation. Instruction in airborne radar was provided by one officer and two NCOs who had had some experience testing ASV equipment on Lockheed Hudsons and had been hurriedly trained at the CSIR Radiophysics Laboratory, Sydney University; the courses were based initially on the ASV Mk I that was the only equipment available at that stage. Staff numbers grew rapidly. Before the end of the year, the arrival of an experienced RAF officer and three NCOs, with a CD/CHL air-warning set made it possible also to provide courses in Ground-based radar.

It was not until 7 Nov 1941 that the War Cabinet invested the RAAF with responsibility for radar air-warning operations - just one month before Pearl Harbor. It was decided that a chain of early-warning (AW) and ground-control-of-interception (GCI) radar stations should be installed at strategic centres around Australia as quickly as possible.

In January 1942, Section S7 was designated a Directorate with Pither appointed Director of RDF (later Radar), directly responsible for creating the RAAF radar organisation including training, equipment and

organisation of radar reporting chains throughout Australia and the Pacific.

It was a race against time that demanded Pither’s full and undivided attention. Circumstances forced him to act with a sense of urgency; he slashed red tape, bypassed normal procedures and, according to his critics, worked as if RAAF Radar was his private empire. He did not trust committees because of the

**A.G.Pither (cont)**

delays that they could introduce, though he found it necessary to represent RAAF Radar on several committees which were influential in the flow of funds from the Defence budget. Given the magnitude of his task, his power base was seriously limited; initially, he had only one unit under his control: No.1 Radio School. He needed to have effective input into the activities of the people from the Radiophysics Laboratory (RPL) of the Council for Scientific & Industrial Research (CSIR) who were involved in the development and modification of radar equipment for the various applications within the Service. He needed to establish working relationships with the organisations that would be responsible for the manufacture of equipment, including the PMG's Department, the NSW Government Railways Workshop and a substantial number of potential industrial contractors of whom the most important were the Gramophone Company (HMV) and Amalgamated Wireless (AWA). He needed also to select radar sites at locations that often were in remote and difficult-of-access parts of Australia and to negotiate with construction authorities, the Allied Works Council, RAAF Airfield Construction Squadrons and several local government construction bodies, to have operational and camp-site buildings erected. He negotiated and reached agreements with Sydney University and the Melbourne Technical College to train prospective radar officers and mechanics respectively, and personally conducted a recruiting drive to attract suitably qualified university students as officer trainees.

Pither found it necessary to be both forthright and dogmatic in his efforts to get things done because he had found that many of the upper echelon of the RAAF had no faith in radar nor did they comprehend its objectives or capabilities. His frustration at this and his sense of urgency were heightened by the frightening rate at which the Japanese forces were advancing in what looked to be a menacing pincer movement directed at Australia.

Because his briefing and knowledge had been on the English models, Pither would have preferred them for early warning and GCI stations but the only set available at short notice was the CSIR RPL's experimental AW. While he regarded it as a stopgap, he ordered three units for the RAAF, one to be kept near Sydney for experimental purposes and the others to be deployed to Rabaul and Darwin, where Japanese attacks could be expected. He

lodged another order for six more sets for other sensitive locations. Although a number of British COL units were imported and installed as defensive stations, mostly around the Australian coast, ultimately, in its further development as the LW/AW, the Australian AW set became the backbone of the RAAF radar effort and was used both by the Americans and the British. Pither, through his negotiations with the NSWGR, was instrumental in that development.

There is no question that Pither made enemies within the Service and that he was fully aware of that. In a letter, of which only pages 2 and 3 appear to have survived, apparently written in January 1943 and presumably to the top management of the RAAF, he comments:

"May, 1941: On return to Australia I was faced with the problem of building from nothing an R.D.F. organisation. This effort demanded my full and undivided attention as it was a race against time – particularly after the Japanese entry into the war.

"The result is that now, some 18 months after the start and 12 months after the Japanese entry into the war, we have a large school operating and an organisation of the following approximate size: (It should be noted that all the stations have been sited, built, equipped and operative in 12 months, as there was no decision to install a warning system until December 1941.)

Officers:	136
Mechanics:	500
Operators:	1000
Stations operating:	57
Aircraft fitted:	100

"That the venture was successful is evidenced by the complete cessation of Japanese day raids on Darwin, and many successes in other areas – not to mention successful attacks on shipping by our A.S.V. fitted aircraft.

"January, 1943: Now that the R.D.F. organisation is becoming a workable system I again find myself at the stage where, having built up an organisation and brought it to working condition, I am to be relieved by another officer and I again venture into a new field, though this time with apparently few prospects. I am informed that, owing to my absence from General Duties for so long, I am not fit to carry out the duties of a Group Captain and have therefore been superseded. While I can see the logic of this argument, it is no comfort to me as I now come to the crossroads which, as I see them, offer the following prospects: . . .

"I can thus summarise my prospects as follows:

Signals or R.D.F.:	Nil
G.D. Command:	Nil
G.D. by going back to school:	Forfeit at least one year's seniority.

"As I see it, my only alternative is (3) above and it is likely that by the time I am qualified for promotion I will have been further superseded.

"In view of the forgoing, I submit that I have been severely penalised and my service career at least jeopardised by the following facts:

- I have been employed by the Service to establish three vital projects, the successful culmination of which represents a considerable contribution to the success of the Air Force as a whole.
- I am now classified as unfit for promotion and find myself suddenly transferred from a duty in which I have been of some use to a position where I am marked as one who has been superseded." [The page ends here.]

However, Pither managed to continue his radar work throughout most of the crucial year of 1943, during which the number of operational stations increased to 101; 420 aircraft were fitted with ASV MkII; more than 450 with IFF of one sort or another; and the numbers of radar staff trained increased to 223 officers, some 1200 mechanics and about 1900 operators (including 585 WAAAF).

In October 1943 W/Cdr Pither left for UK on exchange duty, handing over to G/Capt G P Chamberlain (RAF) as Director of Radar. There he was employed on radar duties associated with D-day and was later put in charge of the radio counter activities against the German V2 program. His own claim that he proposed this exchange (Pither (1946), p.51) is open to serious question as several close associates have said that he had his arm twisted to suggest that for official records. He was, in the opinions of many people, moved sideways so that the hierarchy could make changes with which he didn't agree.

The establishment did not wait long after Pither 'left town' to make those changes. From January 1942, signals and radar had been under separate directorates, but, especially among the senior signals officers the view was held that, because of the general similarity of techniques and equipment, some coordination of the two activities was necessary.

On his return in December 1944 W/Cdr Pither was re-appointed as Director of Radar, but the urgency of his task had passed and the command structure within the directorate had become so complex that there was little left for him to do. In July 1945 he was appointed to the RAAF Staff

### A.G.Pither (cont)

School, graduating late in September, by which time the war was over. As a career officer he stayed on in the Air Force but was not confirmed as a substantive Wing Commander until January 1947.

His postwar postings, less important as far as this article is concerned, were:

Early in October 1945, he was appointed to the Australian Scientific Mission to Japan then in May 1946 he went to the UK as an RAAF member of the Australian Mission to the Commonwealth Defense Science Conference. In July he was on the staff of the Air Member for Technical Services and responsible for matters associated with guided missiles. Promoted Group Captain in March 1947, he was appointed RAAF Liaison Officer to the Long Range Weapons Establishment in April, before being seconded to the Department of Supply in May 1951 as Range Officer at the Woomera Weapons Establishment, SA.

Back with the RAAF in September 1954, he was appointed Director of Telecommunications & Radar at RAAF Headquarters. In June 1959, he was CO of No 1 Aircraft Depot where he flew Vampires, then in November 1961, CO of RAAF Base Laverton. Finally, in January 1963, he was appointed Staff Officer, Telecommunications and Engineering. On retiring in February 1966, he was given the honorary rank of Air Commodore.

During his service he became a Member of the Institution of Electrical Engineers, Australia and a Fellow of the Institution Radio Engineers, Australia.

In retirement, he obtained an amateur radio licence and used his many talents in several community projects. Probably the most successful was the modernisation and re-organisation of the Flying Doctor Service's communications network.

Whilst technical and administrative functions were his forte, he became deeply involved in the Councils of the Methodist Churches of Australia, the problems of Australian youth and also migration.

He died suddenly in July 1971 at his home in Hawthorn, survived by his second wife and the twin son and daughter of his first marriage.

Pither was a leader among men, not an 'armchair boss' as he visited remote stations and talked to staff wherever he went. There is complete agreement among those who worked for him that Alfred George Pither was a great man to work for provided that one did the job properly as he did not 'brook fools lightly'. There is little doubt that he was forthright and outspoken. He has been described as being

gruff and ill at ease with other ranks. However, those who were close associates, including senior NCOs who worked under him in Melbourne, claim he was a reserved person who was very loyal to his staff, setting a high performance standard for himself and expecting it from others. He listened to anyone, whatever their rank, if they had something positive to suggest.

In his December 1946 report, W/Cdr Pither admitted that his actions had caused some administrative and accounting difficulties, which lasted for some years afterwards. This is seen as a polite way of saying that he had put some noses out of joint by going into areas that some of his service colleagues may have considered to be their's and sacrosanct to them. Their petty-minded responses can in retrospect only be seen as contrary to the objectives of Australia's war effort. Perhaps, however, to some extent they can be forgiven, as the whole of the new and rather technical concept of radar was shrouded in an almost impenetrable veil of secrecy, with only those who demonstrably needed to know having any detail of the distribution of the equipment or of its capability and effectiveness. Whether, even in retrospect, that level of security was justifiable or operationally effective is still a matter of conjecture. But, certainly, it did nothing to reassure the 'old guard', nurtured in the traditions of the Flying Corps, that the Pither urgency, amounting as some saw it to arrogance, should be supported as being critical to a successful defence of Australia and eventual defeat of the Japanese. Pither, we believe rightly, saw it as such, to the substantial detriment of his personal career.

### RAAF Radar in WWII

[This excerpt from Walter McKinnon's book, *In the Dark - The Future Role of Airmen in Air Defence*, published in 1998 by the Air Power Development Centre in Canberra, has been featured in *Radar Returns* some years ago. However, we believe that it justifies republication in this context as a recognition of the work of George Pither.]

A critical reliance on radar and radar personnel had been established, and yet, it was largely unknown that the effective integration of the air warning organisation and its fighter control units with allied fighter units represented one of the most significant applications of technology and combat capabilities in the South-West Pacific Area. Without the radar warning information and fighter control provided by operational radar units, it is doubtful that allied air defence operations would have achieved the level of effectiveness

and success that were to prove so vital to the war effort in the Pacific area of operations.

Apart from the aircrews and radio operators who were directly involved with the radar organisation very little contact was made with other elements of the allied forces. The lives of thousands of Australian and allied airmen, soldiers and sailors were owed to the vigilance and dedication of radar personnel throughout the region. Yet the importance of their contribution was never fully appreciated or made general knowledge due to the high level of security that surrounded the technology and the geographical isolation of most radar units. Radar operations lacked excitement and glamour, radar did not possess a strike capability, radar was not one man in a cockpit but was representative of an amorphous faceless entity that could not be identified individually. Radar was a recalcitrant and demanding technical capability that was also the key to success in the air. That the allied successes in the air war over the Pacific would not have been possible without the advent of radar technologies is an understatement.

### 208RS - A History

It is reassuring to find that there are still people who are able and willing to spend time and effort in researching and recording the details of the life of, and life on, a radar station that was an element in Australia's defences in WWII.

Eric Manning is a retired engineer who lives in Newcastle. His older brother had been a radar mechanic in WWII and had had a brief association with 208RS at Catherine Hill Bay late in the war. Several years ago, he joined with a local historical society in an ultimately successful campaign to have the site of 208 with its two surviving concrete 'igloos' listed by the NSW Heritage Office.

In doing this, Eric made a number of contacts among veterans who served on 208 or knew the technicalities of its equipment. He has now taken the next step by drawing on the memories of these people as well as on his own meticulous research to put together an excellent account of the unit and its part in the wartime defence of Australia. Regrettably, I am not able to give a detailed review at this stage, but my impression is most favourable and I warmly commend it.

The title is: *Rare WW2 Radar at Catherine Hill Bay*, available from the publisher, East Lake Historical Society Inc, PO Box 284, Swansea NSW 2281, price \$18 plus \$5 postage and packaging.

Warren Mann

## STATE ASSOCIATIONS

### VICTORIAN RAAF RADAR ASSOCIATION

#### No 1 Signals School Plaque

During WWII thousands of RAAF, WAAAF and USAAC personnel were trained at No 1 Signals School as wireless and electrical mechanics also wireless operators, etc with some WMs having further training as radar mechanics. A dedication ceremony for a plaque commemorating No 1 Signals School will be held at the Parade Ground, RAAF Williams Point Cook Base on Sunday 8 November. A short dedication ceremony is being held in conjunction with the Annual Pilgrimage service of the RAAF Association, which is due to commence at 11am. We expect that the dedication ceremony will commence at approximately 11.30. Medals may be worn. After the formal proceedings all present are invited to a barbecue lunch hosted by the RAAF A.

#### Getting there – by road

Take the Geelong Road (Princes Freeway), turning off to Point Cook near Laverton (Melway map No 53 C11) to join Point Cook Road and proceed south for about 5km to the RAAF Base. Be prepared for some delays due to road works on the West Gate Bridge.

#### Getting there by public transport

Laverton is the nearest station to Point

Cook. Trains run from Flinders Street and Southern Cross (formerly Spencer Street) stations to Laverton on the Werribee line about every 40 minutes. If we know who is coming, Association members will meet the train departing Platform 11 Southern Cross at 9.39am and due at Laverton at 10.24. This train will allow members to be seated in time for the commencement of proceedings at 11am. Participants will be returned to Laverton station. Note that Seniors Cards from all states now get concession fares on Victorian trains.

On entering the Base they may be asked to sign in at the security checkpoint in which case some form of ID will be needed (driver's licence or similar). Children may be able to show a student ID and attendees who do not drive could bring an electricity, water, gas or similar account showing their name and address.

However if you let Ian or Doug have the full names of all in your party by 29 October, they will forward a list to the Base and all will be allowed to enter without more formality than confirming their name is on that list.

*Ian McKellar, Secretary (03 9729 4359  
or email [ianmck@alphalink.com.au](mailto:ianmck@alphalink.com.au)  
Doug Brooke, Transport Coordinator  
(03) 9822 3458*

### RADAR BRANCH, RAAF ASSOCIATION (NSW)

It is an honour for me to contribute to the last edition of *Radar Returns* and acknowledge the profound contribution of Warren Mann to the Radar community in Australia and overseas. I am equally pleased and relieved that the dedication to, and prodigious knowledge of, radar history provided by Warren Mann and Peter Smith will not be lost but retained by the Australian War Memorial as a fitting legacy to their achievements. The Radar Branch committee will investigate whether aspects of *Radar Returns*' functions can be continued with our assistance.

The NSW Radar Branch had its origins at the end of WWII, when a Radar Association was formed in 1946 by a group of ex-RAAF members, including Bert Israel, Hugh Peaston, Maurice Brown, Alan Llewellyn and Bob Chilton as a means of keeping contact with trained radar people post-war. The Radar Branch of the RAAF Association (NSW Division) was formed on 23 August 1960 and attended by Walter Fielder-Gill, then State Vice-President of the RAAF Association. Don Kennedy was elected inaugural President and Gordon Thomas as

Secretary. Walter Fielder-Gill succeeded Don Kennedy on 26 February 1971 and has held the position until 2007. Today the Branch has about 200 members among WWII veterans, post-WWII RAAF with a slowly increasing number of currently serving RAAF men and women.

While post-WWII members are still joining the Branch, in the longer term we will look to those currently serving in the RAAF to be members of the RAAF A and take over the leadership of the Branch. Many currently serving RAAF members in units associated with Radar have been on active duty in the past decade. Readers will recall that 41 Wing and 114MCRU personnel were deployed in Afghanistan in 2007 with their modern TPS-77 Air Surveillance Radar reporting to the Control and Reporting Centre (CRC) at Kandahar Airfield. The CRC has been an exemplary lead command and control agency responsible for air surveillance and air-battle management in Afghanistan. It has recently handed over to the US Air Force and returned to Australia, very proud of their efforts. A Welcome Home Parade in Newcastle on 11 October recognised their

#### RAAF Radar Vets - WA Group

The Group, though declining in numbers and not very active, still holds two meetings a year. The Annual General meeting will be held at the AFA Club, Bullcreek on Tuesday 17 November.

Negotiations are continuing with the Council at Exmouth with a view to having the memorial plaque provided by the Group mounted and dedicated, but there is no indication yet as to when this might happen.

The office-holders are: President: Mark Bussanich (Phone 08 9586 4165); Vice-President & Gold Card Delegate: Laurie Leckie OAM (08 9446 4307; Secretary/Treasurer: Ray Sewell 2/34 Harlequin Mews, Greenfields WA 6210, phone 08 9586 8169.

#### The Tanah Merah & DNG Radar Gazette

Edited by John Patrick McAuley, 10 Grevillia Court, Hopetoun Village, Castle Hill NSW (Phone: 02 9680 4274, and issued quarterly, this gallant publication is, so far as we are aware, the last surviving radar unit newsletter in print. John would be happy to send it to anyone who in WWII served on any of the six radar stations that were deployed in Dutch New Guinea.

Congratulations, John!

distinguished duty. 44 Wing Air Traffic Control has also completed a long period of operations in Iraq and members of 92 Wing Maritime Patrol flying P3C aircraft are still conducting surveillance missions.

They will share a bond similar to that which motivated those involved with radar in WWII and post-WWII to maintain camaraderie and professional interest in radar. We hope that this bond will spur interest in the Radar Branch and result in membership. The challenge for the Radar Branch committee and members is to foster communication with current RAAF while maintaining that special bond within the radar community. To that end, the Radar Branch NSW has a website at [www.aafradar.org.au](http://www.aafradar.org.au) which we hope will help maintain and strengthen links with *Radar Returns* membership as well as attract new members to the Branch.

On behalf of the Patrons, Committee, and Members of Radar Branch NSW, congratulations to Warren Mann and thank you for the great legacy from *Radar Returns* over many years.

*AIRCDRE Terry Delahunty AM, President*



## The Internet for Radar Vets

The technology of radar introduced some revolutionary new concepts into warfare during WWII, but its influence on the technological developments of the postwar period has been perhaps even greater. In his fine book, *The Invention That Changed the World*, Robert Buder, in discussing the wartime work of the Radiation Lab at MIT, commented (pp 15-16):

*Digital computers, including their cathode ray displays and memories, owe a great debt to radar: they are the offspring of World War II systems. Microwave telephones and early television networks got critical boosts from wartime radar. The technology made a huge impact on astronomy by opening a region of the electromagnetic spectrum - radio as opposed to optical - that ultimately brought on the discovery of pulsars, quasars, and a plethora of hidden galaxies. . . . Early particle accelerators owe a great debt to [the pioneering work on radar at MIT]. So does microwave spectroscopy. So too do the microwave ovens common in today's homes, for a secret radar transmitter carried from Britain to America in fall 1940 forms the very core of these time-saving appliances.*

The most significant of these advances has probably been the digital computer and the spin-offs from it, the Internet and World-Wide Web. The effect of this technology on the daily life of us all in the 21st C was, of course, unimaginable at the time. The pace of its development has been amazing; unfortunately, it has frightened many, often, I believe, quite unnecessarily.

People who worked as radar technicians or operators during the war should not find modern computers terrifying, even if so far they have had no contact with them. Many of the uses of computers will not be of any interest, but everyone can benefit from access to the Internet.

The Internet, often referred to as 'the Net' or 'cyberspace', was 'invented' only in the 1970s and developed in its current form only in the 1990s. It is a kind of universal communications network of interconnected computers, by which anyone with a computer is able to access, transmit or exchange data (information). More than 100 countries are linked into these exchanges of data, news and opinions. With millions, even billions of users worldwide, the Internet is a vast and still rapidly growing repository of information from all over the world on every topic you can imagine.

As *Wikipedia*, a free, interactive, online encyclopaedia, explains the Internet:

*It is a network of networks that consists of millions of private and public, academic, business, and government networks of local*

*to global scope that are linked by copper wires, fibre-optic cables, wireless connections, and other technologies. The Internet carries a vast array of information resources and services, most notably the interlinked documents of the World Wide Web (WWW) and the infrastructure to support email. In addition it supports popular services such as online chat, file-transfer and file sharing, gaming, commerce, social networking, publishing, video on demand, teleconferencing, telecommunications, and person-to-person communication via voice and video.*

*The Internet is decentralised by design. Each Internet computer, called a host, is independent. Its operator can choose which Internet services to use and which local services to make available to the global Internet community. Remarkably, this anarchy by design works exceedingly well.*

*No one actually owns the Internet, and no single person or organisation controls the Internet in its entirety. More of a concept than an actual tangible entity, the Internet relies on a physical infrastructure that connects networks to other networks. There are many organisations, corporations, governments, schools, private citizens and service providers that all own pieces of the infrastructure, but there is no one body that owns it all. There are, however, organisations that oversee and standardise what happens on the Internet and assign IP addresses and domain names. In 2009, an estimated quarter of world population uses the services of the Internet. [Adapted, with some editorial changes]*

Most of us access the Internet through commercial Internet Service Providers (ISPs), using a program called a browser. Typically, users visit a Web site either by clicking on a hyperlink that brings them to that site or typing the site's address directly into the address bar of the browser.

An essential component of the system will be one or more search engines into which you type your question or even one or two relevant words. When a user enters a query, the engine examines its index and provides a listing of best-matching web pages according to its criteria, usually with a short summary containing the document's title and sometimes parts of the text. Web search engines, *Google, Yahoo, Alta Vista* and many others, work by storing data about many web pages, which they retrieve from the WWW itself and store in an index database for use in later queries. Once contact has been made, the browser requests the data from the Web server, which delivers the data back to your browser to be converted, in turn, into what you see displayed in your computer.

The value of a search engine depends on

the relevance of the result set it delivers. While there may be millions of web pages that include a particular word or phrase, some may be more relevant, popular, or authoritative than others. Most engines employ methods to rank the results to give the 'best' results first. The way this is done varies widely from one engine to another.

Most Web search engines are commercial ventures supported by advertising revenue and, as a result, some charge advertisers to have their listings ranked higher in search results. Those search engines which do not accept money for their search results make money by running search-related ads alongside the regular search engine results. They make money every time someone clicks on one of these ads.

Public libraries, internet cafes, computer kiosks, children, grandchildren and computer-savvy friends can help. Local government councils usually provide a library service, and most of their libraries now have computers which provide access to the Internet for public use at little or no cost. Typically, you book a session and can use the computer for any legal purpose for that time. Staff are usually very willing to help you with using it.

## EDITORIAL (Cont.)

which is described in some detail on p10. As explained there, the site is now publicly available the National Library of Australia and will be regularly updated by the Australian War Memorial (AWM).

I am well aware that many of you have not had experience in the use of the computer as a tool of every-day life, and you may feel that the loss of the print version will shut you off from access to all this material. However, there are ways of overcoming this which even people of my generation find easy to cope with and indeed very interesting. On p 9, some hints are given on coping with the internet.

The cost of maintaining our website is not as great as that of producing and distributing a regular newsletter, but it must still be met. We have built a small surplus from which we can meet foreseeable costs for the next year or so, but there will still be a need for some supplementation of our funds. I would encourage those of our readers who are in a position to help in this respect to do so in the coming months so that the fund will continue to provide for the site's enhancement as well as its long-term maintenance. May I once again express my gratitude for the generosity without which I could not have done what has been done so far.

Warren Mann, Editor

## THE RADAR RETURNS WEBSITE

The website [www.radarreturns.net.au](http://www.radarreturns.net.au) has ten sections:

**1. News & Notices.** Information about coming events and news items of current if passing interest to RAAF radar veterans.

**2. Newsletters.** An archive of all issues of *Radar Returns* from 1995 to 2009. A comprehensive index of all 40 issues is planned to assist future historical and genealogical researchers.

**3. Faded Echoes.** Brief notices of deaths of radar and associated people by date of death, with any tributes available. This section will continue, so we should like to be notified of the passing of people associated with RAAF radar, especially of those who served in WWII.

**4. WWII Radar Units.** Based on research by the founding Editor of *Radar Returns*, the late W/Cdr Peter Smith, this section is a list of all radar units, giving for each details of principal radar equipment used, dates of formation and disbandment, significant events in its history, names of Commanding Officers and the dates of their appointment, and Notes on the Events, including where possible the geographic coordinates and elevation of the radar unit. It includes information on such associated units as RIMUs and FCUs. A listing is also made of all the COs, giving the units they led with dates of their taking over and of their promotions.

**5. WWII Technical Personnel.** This section also owes much to the work of Pete Smith, who analysed the training reports given in the Personnel Occurrence Reports of No 1 Radio (later Radar) School (IRS), Richmond and later Maryborough Qld; a not-quite-complete set of these documents is held in the National Archive. Every unit was required to produce PORs as a daily report on personnel movements, leave, promotions, training, sickness, deaths, disciplinary action etc; generally they were hurriedly typed (not always accurately), roneoed and displayed as notices within the unit; a copy was also sent to the appropriate Area H/Q where it was filed. The PORs for many units appear not to have survived, so it is fortunate that a reasonably good set of those from IRS is available. From it, Pete drew up lists of all who took technical courses for Officers (Ground and Air), Mechanics (Ground and Air), and Operators. From these lists, a full list of all the names (with initials only, not given names), in alphabetic order, and with the courses they completed, has been prepared and posted to form this section. Improvements to the list are also planned and it should form an almost complete

check-list of all those involved technically in radar during WWII.

**6. Archive - General.** Here we have so far posted three of the books which have contributed most to RAAF radar history, *Radar Yarns*, *More Radar Yarns* and *Echoes Over the Pacific*, edited and written by Ed Simmonds and the late Norm Smith, and several other documents that are important in the same context, including the 1946 report by W/Cdr A G Pither. Other documents will be posted as they become available. Important additions will be *Technicalities and Generalities*, by Ed Simmonds and Pete Smith (previously only available on CD) and *A Short History of RAAF Ground Radar In WWII*, also by Ed Simmonds (unpublished). This is one of two sections in which an individual's contributions can be archived for posterity.

**7. Archive - Units.** In this new section now being developed will be uploaded, progressively, material throwing light on the histories of individual WWII units, including diaries, memories, photos etc, for the most part supplied by people or the relatives of people who served on them. It may be possible later to extend this to archive material from post-WWII units. Contributions relating to a specific unit may be recorded in this archive. Relevant material is sought; originals of photos will be scanned (copied) and returned to their owners by post. Photos in digital form can be sent by email or on disk.

**8. Guest Book.** A facility by which brief comments and other communications can be posted directly to the website.

**9. Links.** By which related or complementary websites can be contacted.

**10. Contact.** A list of the means of contact with the Web Manager/Editor.

More sections will be added to the site should they become necessary.

Since December 2007, this website has been publicly available through the PANDORA Archive of the National Library of Australia. It will be re-archived on a half-yearly basis by the Australian War Memorial (AWM), probably in each June and December so that new material is regularly included.

The publication has been catalogued as one of a number of sites selected to represent the specific subject areas, in this case, military history, that are deemed worthy of being collected and preserved for the future. The catalogue record for our site included in the AWM's Research Centre online public access catalogue is: <http://www.awm.gov.au/firstopac>

You can access the archived version in

the PANDORA Archive directly at: <http://pandora.nla.gov.au/tep/92023>.

The usefulness of this site depends on a regular flow of information into it. If you have anything to contribute that might be appropriate: articles, diaries, photos, death notices, corrections etc, or suggestions and criticisms, please contact the Manager/Editor (for contact details see p 1).

*Web Manager/Editor*

### IMPORTANT NOTICE

#### Web Manager/Editor

We are seeking a suitable person to work, in an honorary capacity, with the founding Web Manager/Editor, Warren Mann, with a view to taking over the function from him in due course. It is envisaged that this person will have a demonstrated interest in military history and some practical experience in and/or knowledge of information technology and that he/she will come from one of the following groups:

1. Retired members of the RAAF with experience in, or associated with, radar;
2. Serving members of the RAAF with experience in, or associated with, radar who are contemplating retirement in the next year or so;
3. Children or grandchildren of WWII RAAF radar veterans;
4. Other people with sufficient interest in radar and its history to be reading this newsletter.

Warren operates from the Melbourne area but location should not be an issue provided email and telephone communication can be maintained. Although now in his late eighties, he has various projects concerned with the development of the website which he hopes to bring to fruition before handing over completely. He is also aware, however, that there is a need for fresh ideas to carry the site forward into post-WWII generations.

*Radar Returns*, of which this is the final printed edition, and its associated website have been supported by voluntary donations from its readership and from several State associations of radar veterans; a limited fund remains which we believe will be adequate for foreseeable needs and which we have reason to believe will be supplemented by further donations.

Further information is available from Warren Mann (for contact details, see p 1) or from Alex Culvenor, 27A Panmure St, Newstead, Vic 3642; Phone: 03 5476 2288; Email: [aculvenor@bigpond.com](mailto:aculvenor@bigpond.com)

## POST-WWII RADAR RETURNS

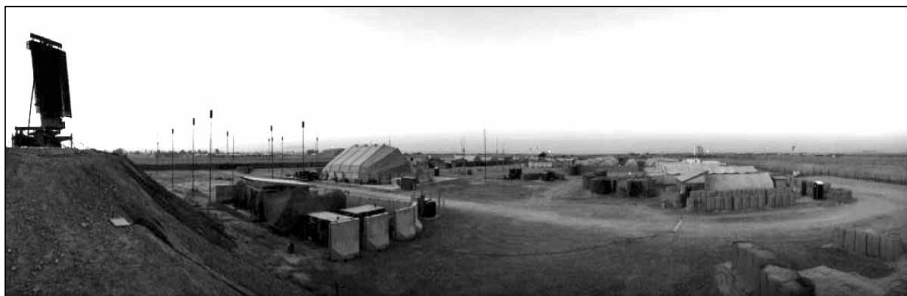
### POST-WWII RR EDITORIAL

In the 14 years during which this newsletter has been published, strenuous and persistent efforts have been made to foster awareness of the importance of the developing history of the application of scientific principles to the control and reporting of aircraft activities, still, of course, after the passage of some seventy years, primarily through the techniques we know of as 'radar'. It is disappointing to find that, in the seven months since the previous issue, there has been barely enough material come forward for this last issue to fill two of the three pages tentatively allocated to history arising from the more than 60 years of RAAF radar activities since WWII.

When Pete Smith, as CO of 3CRU, realised that the history of the development of radar during WWII was not only interesting but relevant to his job and to those of everyone involved in radar-related activities in the Air Force of which he was a part, he set about not only learning more about it himself, but establishing a medium through which that interest could be fostered in his contemporaries. It is sad to reflect that in this he seems largely to have failed, though his newsletter has played a useful part in encouraging WWII veterans to engage in efforts to record what remains available of the primary historical material.

Unfortunately, there has not been enough practically expressed interest among the younger members of the radar fraternity to enable the newsletter itself to survive indefinitely into the future, and we have been obliged to look to emerging technology and put our hopes in a website. The support we have had for this, both nationally and internationally, has encouraged these hopes, and we are looking to make the next step that we trust will ensure that the site, at least, will survive. To that end we are seeking an appropriately interested and skilled person who can work with me for a limited period before taking over as manager/editor fully responsible for the future of the site. This person will have full responsibility for developing the site to meet changing demands as he/she may see them. The readership of this section should be the most likely source of suitable applicants, so I commend to you the Notice on p 10 in case you or someone you know might be interested in what I have found to be a most interesting if on occasion demanding opportunity.

*Warren Mann*



Camp Palomino, Khandahar Air Base, Afghanistan

### 41 WING AT WAR

On the 5th of August 2007, 41 Wing achieved another milestone in its long history. On that day, the Control and Reporting Centre (CRC) officially took over control of Afghanistan's airspace from the United States Air Force (USAF). Not since the Malayan Confrontation had 41WG elements been directly involved in war-time operations.

Four weeks earlier a 41WG Advance Party landed at Kandahar Air Base to set up and prepare for the arrival of the main body. This small team was responsible for 'Australianising' operations and preparing the way for the rest of the personnel.

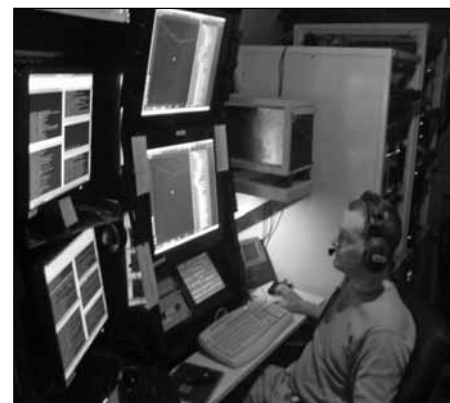
The CRC's primary 'eyes' was a RAAF AN/TPS-77 Air Surveillance Radar. 41WG have used this system for a number of years, but it's safe to say that during this deployment it was pushed to its limits. The radar turned and burned almost non-stop for the duration of the deployment and acquitted itself as an exceptionally reliable and capable system.

The deployment was like nothing else that personnel currently serving in 41WG had experienced before; the hours were long, the days off were few, and the operational tempo was unsurpassed in living memory.

Afghanistan is one of the busiest operational air environments in the world, with an extraordinary number of military missions daily. In addition, it is a developing country with an immature air traffic system and an ever-growing number of civilian movements. To this end, CRC personnel provided separation advice to military aircraft (including operators of uninhabited aerial vehicles) and directed combat aircraft throughout Afghanistan in support of ground troops for 24 hours a day every day until the deployment concluded in July 2009. In all, throughout the two-year deployment, the CRC handled almost 196,000 aircraft movements, comprising fighter, bomber, transport, surveillance and uninhabited types.

At full strength, the CRC had a

complement of about 70 personnel: Air Combat Officers, Air Surveillance Operators, Communications Technicians and a range of other specialists including medical, chaplaincy, logistics, administrative, maintenance, force-protection and intelligence personnel. In all, more than 400 predominantly RAAF personnel called the CRC home at one time or another during the deployment.



'On Operations', inside the Mobile Control and Reporting Centre

'Home' was, in fact, Camp Palomino, a base within a base, situated 100 metres from the edge of the runway. Camp Palomino – named after a USAF airman who was critically wounded in Iraq – was austere but comfortable. Meals were prepared 'on the other side' and delivered to the camp in hot boxes, mail was delivered weekly and all laundering was done by contractors, with returns varying between two and ten days! Accommodation was in air-conditioned tents, with bedroom partitions constructed from ply, and the camp boasted a recreational room, a well-equipped gym, a TV room and its own cricket pitch and beach volleyball court.

The deployment was truly a whole-of-wing endeavour augmented by people from the wider Air Force and, in a few of cases, Navy. Personnel from Headquarters 41WG, 114MCRU, 3CRU, SACTU and 1RSU all served at the CRC but a significant number of external groups were

## 41 Wing at War (cont)

also involved, including No 1 Air Operations Support Squadron, No 1 Combat Communications Squadron, various Expeditionary Health Squadrons and a number of reserve squadrons to name a few.

The curtain finally came down on this chapter of 41WG's history on 9th July 2009, when the RAAF formally handed the air battle management and air surveillance mission back to the USAF. The successful conclusion of the deployment and the safe return from operations of all CRC personnel were recently celebrated in Newcastle. Returned personnel relived their experiences at a cocktail party at Customs House on 10th Oct 2009 and next day about 200 CRC personnel paraded along the Newcastle foreshore and were formally welcomed home by the Hon. Greg Combet AM MP, Minister for Defence Personnel, Materiel and Science.

*Andrew Earl FSGT, 41 Wing*

## WELCOME HOME

On Sunday morning 11th September 2009, Anne & I went to Newcastle to attend the Welcome Home Parade for returning veterans from a two-year radar deployment in Afghanistan of 41 Wing Mobile Control & Reporting Centre.

The first elements arrived in Afghanistan in April 2007. The RAAF Control and Reporting Centre (CRC) took over the air surveillance and control mission in Afghanistan from the United States Air Force on 5 August 2007, and operated 24-hours-a-day every day until 7 July 2009.

Based at Kandahar Airfield in Southern Afghanistan the CRC provided air surveillance and air battle management of military aircraft operations all over Afghanistan, and had a work force of 75 men and women.

Throughout the deployment, a reconnaissance team, a set-up team, and 5 full rotations of personnel, in all more than 400 people, served in Afghanistan over two years. Afghanistan's airspace is one of the busiest operational environments in the world with a large number of military and civilian aircraft movements each day. The CRC was a key component of Australia's commitment to the NATO-led International Security Assistance Force operations.

The parade commenced at 10 45am. It was reviewed by the Hon. Greg Combet AM MP, hosted by Air Marshal Mark Binskin AM and led by Group Captain Daryl Hunter CSC and six Flight Commanders.

The VIPs included the Hon Greg Combet, Minister for Defence Personnel, Materiel and Science, Cr John Tait, Lord

Mayor of Newcastle, Air Marshall Mark Binskin AM, Chief of Air Force and other dignitaries as well as families of deployed members and members of the Radar Branch RAAF A NSW.

The 230 members on parade were well turned out and a credit to 41 Wing. The parade was led by the RAAF Central Band. The current Air Defence Radar was set up at the rear of the VIP group. Lunch was served at the end of the ceremony.

These men and women are our new returned veterans, and we are very proud of them.

*Howard Campbell.*

## 2CARU REUNION, DARWIN

The 50th Anniversary Reunion of the formation of No 2 Control & Reporting Unit was celebrated by a reunion in Darwin in September 2009.

It was a brilliantly organised event, thanks to the Darwin Committee, led by Gail Snell (Mapstone) (ex-WRAAF Aircraft Plotter) and her daughter, Sgt Leslie Stowers (Snell), a serving RAAF ASOP and supported by Ken Hodge (ex-Aircraft Plotter) Rex (ex-Acplot) & Roz Palmer, Clem (Blue) & Judy Pratt. Blue was an early orderly room Sgt at 2 CARU.

Josie (Long) (Ex-WRAAF Sgt Aircraft Plotter) & Tony Morgan, ex-WO ASOP Kev Funnell did an excellent job, keeping the List up to date. The initial event on Friday night was a 'meet-&-greet' at the Darwin RSL Club. With other ex-2 Caruvians, I attended a combined Officers and senior NCO'S dining-in night at RAAF Darwin Sgt's Mess.

On Saturday night our group of 150 people attending the Skycity Casino at Mindil Beach for a formal dinner. Good food, wonderful service and a memorable night was had by all.

Sunday morning saw a large group of hardy warriors and general public on the Darwin Esplanade for the unveiling of a memorial plaque, which read as follows: "In Commemoration of all who served at No 2 Control & Reporting Unit, Lee Point, from 2 April 1960 to 1 January 2002. Dedicated Sep. 2009" with the official 2CRU crest on top. CWA ladies provided a beautiful morning tea.

On Monday morning, we were taken by an airconditioned RAAF coach to the old radar site at Lee Point. An hour's nostalgic climbing up and down steps etc brought back many memories. The buildings are due for demolition in the near future, as suburbia is only a short distance away. We then travelled to RAAF Darwin for a lecture and tour of the 114MCRU site - very informative - and we were warmly

received by serving RAAF radar personnel. The coach then dropped interested members at the Darwin Aviation Museum (that B52 is massive up close!)

On Wednesday morning we were given a brief tour of Darwin and Palmerston, then on to the Adelaide River War Cemetery. Still a tranquil oasis, beautifully maintained by the Australian War Graves Commission. We then drove to the Adelaide River Railway Museum, and luckily saw the 'Ghan' train on its way south; a barramundi-&-chips lunch at the Adelaide River Hotel, then back to Darwin.

Thursday evening saw our group gathered at a roped-off area at Mindil Markets. Our hosts had supplied chairs and liquid refreshments. The battles of Bagot Road and Nightcliff were re-fought.

A BBQ at the RAAF Golf Club on Sunday evening was our last official engagement. Once again this was wonderfully organised, with Gail Snell's two sons-in-law doing a wonderful job of cooking. Ken & Karl were warmly thanked by all for their efforts. A farewell-to-2CARU cake was cut by ex-WO Air Defence Supervisor Ray Collins. At 86, Ray was our oldest participant and was supported by his wife Evelyn.

Monday morning at 7.40 saw me depart for Sydney, arriving 3 hours 40 later at a more comfortable cooler temperature. It was good to leave the awful heat and humidity but sad to say farewell to so many old friends.

*Howie Campbell, Secretary & Welfare Officer, Radar Branch, RAAF A NSW*

## FAREWELL

It is with mixed feelings that I bring this final issue to a close. I am relieved to have a means available by which some of the newsletter's useful features will be continued. I regret that no-one has emerged to carry on producing it in this form, and I shall miss greatly the feeling that I am in direct if somewhat intermittent contact with many friends, old and new, at a time of life when one's circle of friends is shrinking alarmingly. With those friends I plead: keep in touch if you can, with me or with the wider radar community, through the website or by whatever other means you may find at hand.

It is a shame that 'radar' has become an 'in' word, the basis for countless (and meaningless) clichés. For us, for you and for me, it is inextricably part of our now distant youth; let us remember it and celebrate it as such. Au revoir! Or, as Ed would have said, Ciao for now!

*Warren Mann*