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RADAR RETURNS

ECHOES FROM THE PAST AND PRESENT

"Today has been one of the most exciting days of my life, for you have shown me the weapon with which we will defeat the Nazis"
Winston Churchill 20 June 1939

Editorial

Well, another year has rolled around but Radar Returns still keeps going. As you noticed in the last edition, I have moved to Canberra and this, and subsequent, editions will be produced from the new location. In that case, I would ask you to please note the new address on the last page if you wish to correspond with myself or provide information on the topics raised in this issue.

The quotation at the head of the page comes from a book which is reviewed later in this newsletter. Winston Churchill had just been given a demonstration of radar and the quote was his reaction to this new equipment. Once again, another very prophetic statement from Britain's wartime leader.

Also included within this newsletter is some valuable advice from Ed Simmonds. If you are about to discuss pensions with the Department of Veterans Affairs I suggest that you read this item carefully.

Otherwise, all is well within production of Radar Returns and I expect that it will continue well into the future.
Pete Smith

Radar Pioneers

William Alan Stewart Butement CBE (1904 - 1990)
Alan Butement, although recognised as one of Australia's leading Defence Scientists, was actually born in New Zealand. His family moved to Australia in 1914 and, shortly thereafter, to England. After securing a degree in Science from London University and completing post graduate research, he joined the British War Office as a Scientific Research Officer.

While in this role in 1939, Alan Butement devised a radar system which could detect and accurately position a ship at a much greater range than before; it could also detect and range low flying aircraft. The results of his experimental installation were so positive that, in August 1939, the Air Ministry ordered a number of sets which became known as Chain Home Low (CHL) to complement the existing CH radar chain. The first CHL unit became operational in November 1939 and, by mid 1940, the CHL chain extended along the south and south-east coastline of Great Britain in time to play an important part in the Battle of Britain.

Alan Butement was also able to adapt the CHL unit to detect friendly fighter planes so that they could be directed towards enemy bombers. He was responsible for much of the preliminary development of ship borne search radar and radar assisted searchlights. He, and another scientist, invented a proximity fuse for anti-aircraft shells but the development of this weapon was passed to the Americans, in August 1940, where it was successfully implemented.

By late 1940, Alan Butement was the Principal Scientific Officer and Assistant Director of Science Research in the Ministry of Supply. This department had taken over developments in radar from the War Office. He was also the Secretary of the RDF Applications Committee.

His next successful project was Wireless Set No 10, the first narrow beam speech radio communications system using multi-channel interlaced pulse modulation. It was in operational use by mid 1944.

Alan Butement returned to Australia in 1947 initially as a scientist involved with the establishment of the Woomera Rocket Range. In 1949 he was given executive charge of the Australian Defence Scientific Research and Development within the Department of Supply. This department later became the Defence Scientific and Technology Organisation. He then became responsible for the general oversight of the whole scientific program for the Service and had 650 scientists, with their associated support staff under his control.

During this time he initiated, or directed work, on the 'Wombat' radar system. This radar allowed aircraft, primarily on coastal defence duties, to determine its position at any time in any weather conditions. He also worked on the infra red image converter (which gave an image on a screen of an area of terrain directly below), the rocket propelled Malkarra anti-tank missile and the anti-submarine Ikara missile.

Alan Butement left the Department of Supply in 1967 to become Research Director of Plessey Pacific Pty Ltd. He retained this position until his retirement in 1981.

(The above information was generously provided by Ted Dellitt)

Q & A

The article on AW Extreme Range Echoes brought forth a number of replies on this type of phenomena. In particular, John McDavitt (Tas) provided the following comment:
'27RS Dunk Island had the distinct advantage of being located on an 800 ft hill. Most radar stations, and particularly LW/AWs, would not have achieved such ranges.
However, on one clear, still moonlit night, 347RS (sited at sea level) achieved a long distance plot. Operator LAC Allan Gough tracked a C54 at 200 miles for about seven minutes. The aircraft was on a milk run from Emirau to Morotai and the plot was confirmed by 114MFCU [Los Negros]. This range was completely abnormal for 347RS as the usual range was about 80 - 100 miles.'

Clive Sinclair (NSW) also provided examples of the effect of Temperature Inversions on the performance of our radars.
'In the Darwin area during 1943/44, I served on two radar units; 132RS at Knuckey's Lagoon and 59RS at Lee Point, both of which are in the vicinity of Darwin NT. Although both of these units suffered from TI[Temperature Inversions], the effect on each radar was very different.
At 132RS, the first signs of the incoming TI would be 'white blobs' along the trace. These 'blobs' would increase in size and begin to run along the trace and slowly fall down to the saturation point. Eventually, the entire trace just completely disappeared.
For 59RS (ENG Mk V GCI), situated close to the sea at Lee Point, the TI effect was entirely different. When I first arrived, towards the end of 1944, I was informed that it was quite normal to take Liberators out to 200 miles. Also, when TI occurred, phenomenal ranges occurred and our aircraft bombing Timor were picked up. Furthermore, as far as ships were concerned, 160 miles plots, was not exceptional. The accuracy of this equipment was also remarkable. For example, at the time, there was a unit on Peron Island which was supplied by boat. Usually, the boat was out of range of the radar at 59RS. On the occasion that TI had an effect, the island was picked up and also another 'blip' estimated to be about a mile off shore. This induced no end of panic as there was no record of any ship movements in the area. The panic subsided when Peron Island explained that the boat was bringing supplies.
The interesting point was that, at Lee Point, there was no effect on the radar trace at all. The TI only seemed to influence the lobe itself. At 132RS, the set became absolutely useless as the trace just disappeared.'

Despite the advances in modern electronics, this radar phenomena still has an impact on today's radars. Darwin weather still manufactures TI which produce unusual range pickups on incoming plots, and, I've witnessed our radars painting the off shore reefs at Learmonth from well inland.

It is marvellous how the Laws of Physics can be interfered with by Mother Nature.

Faded Echoes

Unfortunately, I do have entries in this column every issue. The amount of detail I have on each entry is entirely dependant upon the person who provided me with the information. So, if someone has more detail than others, it is not favouritism but just a factor of available information.

[Sgt] **Gordon S. Clarke**
Died 5Aug96 after a long battle with ill health. Age 81 years. Served in the RAAF 4 years 10 months and was based north of Darwin.

Alan Walls
Died suddenly and unexpectedly on 12Oct96.

James Lachlan Brown of Glebe NSW. Served in the RAAF with 306RS at Bulolo PNG and then as a Sgt Instructor at the Radio School in Maryborough QLD. He died in early 1996 after a fairly long illness.

Lou Malempre of Melbourne VIC. An early Radar Officer.

Valuable Advice

From the pen of Ed Simmonds.

Recently, some feedback from other Radar Veterans has indicated that the Department of Veteran's Affairs (DVA) has not accepted extracts from any of our Radar History books (ie Radar Yarns etc) as admissible evidence during

applications for pensions. They have said that the books are privately produced and are therefore not official publications !

If you are facing a tribunal, and these publications are dismissed, then I strongly recommend that this statement be challenged in a submission to the Ombudsman on the basis that there are no official publications supplying comparable detail. Additionally, it is also known that, in some areas, the A50 History Sheets were altered before submission to Headquarters.
Good luck with your endeavours.

Book Reviews

RAAF Maryborough Wartime Memories 1941 to 1945
Edited by John Ryan

For those who have been unaware, there was a reunion in July 1996 for all those who served at RAAF Station Maryborough. Although this station may be unknown to some personnel, it was the location for a number of significant training establishments including the RAAF Radar School from November 1944 to November 1945. In particular, RAAF Station Maryborough became the home for a Station Headquarters, two Recruit Depots, a Wireless Air Gunners Training School, HMS Nabstock, Monab 6 (an establishment of the RN Fleet Air Arm), and of course, the Radar School. This station conducted 100 Recruit Courses, 36 WAG courses and 115 Radar Training Courses.

This history of RAAF Maryborough sets out the history of all these units at the station as well as presenting some of personal memories of its residents. The book in presented in A4 format and is a font of information. As well as providing a summary of each unit's A50 History Sheets, John Ryan has included photographs, a detailed map of the base and other details which have enhanced this valuable piece of RAAF history. I would recommend this publication to anyone researching RAAF history or just interested in an important training establishment.

To obtain a copy of this history, you need to send a cheque for $26.00 (includes p&p) to:
John Ryan
103 Russell Street
MARYBOROUGH QLD 4650

RADAR - A Wartime Miracle
Edited by Colin Latham & Anne Stobbs
ISBN 0-7509-1114-X
Sutton Publishing

If you have read Radar Yarns, or More Radar Yarns, you may be struck by the similarity of format with those great publications and this book. The big difference, of course, is that this book is concerned with the development and use of radar in Great Britain and Europe during WWII. As well as containing detailed technical descriptions of RAF radar, there are some brilliant stories of the men and woman who used these systems to great effect. Although not pertinent to my particular area of research, I gained a great deal of enjoyment from comparing the conditions of war in Europe to those experience by our radar personnel in the Pacific. I'm not sure there would be much sympathy from the DNG radar personnel with statements like "Here we lived in grand style. The food was marvellous, prepared by a Belgian lady chef: breakfast was laid out with dishes of all kinds - kidneys, bacon and eggs, fish - almost anything you could want."
However, this contrast in conditions is balanced by reading how Cpl Avis Parsons (nee Hearn) earned a Military Medal by continuing to plot aircraft while her radar station was, literally, bombed to pieces around her. In all, 30 Stukas dropped 90 bombs on the station during the raid. She was presented with the MM by the King at Buckingham Palace, and "when His Majesty asked her what she had been doing at the time of the raid, she replied that she'd been working on telephones. Nobody was to be told about radar - not even the King !"

This is a most enjoyable publication which also provides the background to the development of a number of radar sets employed in Australia and the SWPA. To date, I have not seen this book in Australian shops and obtained my copy from the USA. No doubt if you want to obtain a copy, I'm sure the major book retailer's would be able to obtain it for you if you provided the publication details above

Next Issue

Having moved into the area of Over The Horizon Radar, I have decided that I had best prepare an article on this topical system. Commencing in the next issue will be a series of articles on the OTHR and all the other developments that are happening (or are about to happen) in the arena of Air Defence. These developments include new ground radars, new control systems, airborne radar etc.

This series will in no way reduce the historical content of the newsletter. I hope to be able to link these new developments to the activities which were commenced by you during WWII.

Stay tuned !!

THE CLASSIFIEDS

45RS Stanley Island
Donn Everitt would like to hear from ex-members of 45 Radar Station Stanley Island. Contact him by writing to:
Don Everitt
23 Bent Street
FINGAL BAY NSW 2315

Radar Reunion - Victorian RAAF Radar Association
The Victorian RAAF Radar Association is holding a reunion on Thursday 24th April 1997 at 12 Noon at the Rosstown Hotel, cnr Dandenong Road & Koornang Road, Carnegie VIC.
If you have any inquiries, direct them to:
Joe Lynam Ph (03) 9557 1672
There will also be a contingent marching on Anzac Day. Look for the blue banner at the rear of the RAAF SW Pacific Area; next to Flinders Street Station.

Fenton Publications
A small second printing of the 307/61 Radar Stations Peron Island has been completed, and the booklet is again available for $5.00. Also, the story of 46 Radar Station Cape Don is well on the way. Stories, and orders accompanied by $5.00, are welcome.
For any of the above, please contact:
Morrie Fenton
27 Lasscock Avenue
LOCKLEYS SA 5032.

Wagga Wagga Reunion
Final registrations for the RAAF Radar Veterans Reunion in Wagga Wagga in April of this year stand at approximately 220. This level of support indicates that the planned events and functions will be successful but still comfortable. Although registrations officially closed on 31 January, the organising committee is still prepared to accept latecomers. However, it would be appreciated that final bookings and **payments** have to be made with bus companies, caterers etc so this must be the FINAL CALL !
Registration forms, completed and lodged promptly, will be accepted BUT, for practical reasons, mid-March must be the finish.

As Easter is early this year, school holidays (at least in most states) will not coincide with this particular long weekend. Therefore, you are urged to make and/or confirm public transport and accommodation bookings as soon as possible. Early booking also entitles some public transport passengers to generous discounts.

The initial deposits of $10 per person were designated on the preliminary registration form to be non-refundable. The money was needed to cover the administrative costs of the event (ie bank fees, printing, envelopes, stamps, telephone calls etc). These costs have been heavy. The committee decided that this deposit cannot be refunded to those people who have decided, for whatever reason, not to attend.

Money paid to cover events (less the registration fee) will be refundable if (and only if) the committee are notified of any withdrawals before 7 April 1997. The Committee will not be responsible for accommodation bookings; these must be dealt with privately.

The Last Word: Remember to bring a photograph of yourself in RAAF/WAAAF uniform for a 'Guess Who' competition !

MAILING ADDRESS

If you wish to contact Radar Returns, please address your mail using the appropriate address below:

Postal Address

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Anzac Park West Offices
APW2-4-25
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