

# RADAR RETURNS

ECHOES FROM THE PAST AND PRESENT

“History never looks like history when you are living through it. It always looks confusing and messy, and it always feels uncomfortable.”

John W. Gardiner *No Easy Victories*.

## Editorial

Well, we've made it all the way to Issue 3 and I am still receiving a lot of support for the newsletter. Many thanks. Your support is keeping the enthusiasm levels high.

Since Issue 2, ANZAC Day has come around again with more Radar Veterans attending the various events right around Australia. For those who attended the BLIPS Reunion last year, you no doubt remember the magnificent event staged by the New Lambton School. Well, this year I was privileged to give the ANZAC day address at the school and you will be happy to know that the RAAF Ensign is still being proudly displayed. If anything, the school's support for ANZAC Day has increased with the entire school participating in a remembrance ceremony. They still remember BLIPS and I was constantly asked, by both students and staff,

about the 'Radar Folk' and how they were going.

The erection of plaques on WWII RAAF Radar sites has become an ongoing quest. Some groups have been able to achieve this aim and the number of commemorative sites is growing. As you will read later in the newsletter, 17RS's plaque presentation was a memorable occasion. And we haven't stopped yet. In August, the RAAF is providing support to some 3CRU members to place a plaque and a history display on the 27RS site on Dunk Island. The original antenna is still on the hill on the island and the island management is providing a tremendous level of support for this activity. 210RS (Toorbul Point QLD) has entered the news lately with the local council and RSL requesting more information about the 'old bunkers' in the area. These bunkers were used by the ACO station there and they want to ensure that the

site's significance is not lost on the local community.

It may have taken 50 years, but more people around the country are beginning to recognise the vital role your group played in the defence of Australia during WWII.

This edition also includes items on ASV radar just to give the 'ground' operators the feeling that they were not the only ones having to wrestle with new equipment and over protective bureaucracies.

Also included with this edition is a registration form for the Wagga 'Get Together' in 1997. Please make use of this form if you intend to join us. It will help Warren and Helen's planning immensely.

The biggest news of all is that our mailing list has grown again with more readers joining us in our discussions on radar, its people and its history.

*Pete Smith - 3CRU*

**BURREWARRA POINT**

On 20 April this year, another radar plaque was unveiled. This plaque commemorates the service of 17 Radar Station and the personnel who served there. It was unveiled by the Mayor of Eurobodalla Shire, Councillor Chris Vardon, and was supported by a large cross section of the local business community. Joining the 15 ex-17RS personnel and 50 'radar friends' were a number of local people who all enjoyed a memorable occasion. The RAAF Historical Section brought along copies of the government documents authorising construction of the radar site. This generated a lively discussion during the dinner, particularly when Arthur Veich stated that he purchased the entire radar at the end of war for 7 pounds. A minuscule fraction of its production cost. As further proof of this statement, he produced some original equipment from 17RS. This led to a scene which will remain in the minds of everyone who attended. On their hands and knees, in the car park at 10:30 at night, were 8 ex-17RS personnel and a recently retired RAAF Air Commodore discussing the function of a part of the radar. At the end of the lively discussion, the consensus was that it was an aerial coupling unit from the radar.

Yet another successful radar function, with particular thanks to Maureen and Les Kinross who were the chief organisers of the event.

**ASV - An Operator's View**

While researching Ted Dellit's question on ASV and ASD, I have discovered that there is even less written about this facet of radar than its ground base relation. I have been hunting around for a while but have only come across technical manuals or descriptions on its use in Europe. Nothing about its employment in the SWPA. I did receive a letter from Roy Lugg (WA) which may explain why the airborne arm of radar fared worse than their ground based version when it came to recording its history. He was a Wireless Air Gunner (WAG) with 13 Squadron in Darwin in 1942 when this incident occurred and his account is based upon his flying log entries. It also indicates that the secrecy cloud was not restricted to just one branch of the service.

"During my absence down south, two civilians had arrived at Hughes [airstrip] and worked on 247 [RAAF Hudson No A16-247]. When I arrived back I was called down to the plane and introduced to them by Christian name only. They then gave me a 'full' briefing.

Our aircraft had been fitted out with ASV - the first in the Territory.

'What's that?' (I later found out it stood for 'Anti Surface Vessel'.)

'We can't tell you. Its secret.'

'How do you use it?'

'You switch it on here.'

'What does it do?'

'Its ASV!'

I gave up. We had heard of radar equipped night fighters. The equipment consisted of a generator, mounted in the main cabin; a black box sat on the Wireless Operator's table just where he usually put his pad; and a couple of shiny rods sticking out of the side of the aircraft. On the front of the [black] box was a sheet of glass with a row of knobs underneath the glass. In addition, there was a sort of rubber face mask that fitted over the top of the box so you shut out all the light while you peered into the dark. When you switched it on, a row of green 'grass' sprang up on the glass screen. By twiddling the knobs, while the 'experts' looked on, I could make the 'grass' grow or shrink. I was qualified! 'There you are - that's all there is to it. Cheerio' said the experts. I suspect I now knew as much as they did. This was secrecy translated to lunacy. The theory was that the less I knew, the less I could tell the enemy if shot down. Pity we didn't know a Jap technician in the

squadron. He might have been able to show me how to operate it.

Half the squadron came and looked at the gadget and departed shaking their heads after suggesting what I should do with it. I was tempted to.

After a crew conference, we decided it might work in the air if it didn't work on the ground due to the trees. So we tried that for an hour and fifteen minutes. With training, and experience, it was possible to interpret the pattern but our efforts were futile. Our next effort - not logged - was a few days later. Ground control indicated that a Jap night fighter was wandering around upstairs.

Holdsworth [WGCDR Holdsworth CO 13 Sqn] decided we should see if we could find it with our ASV. Lloyd Edwards' (my new CO) WAG considered it a lot of fun - chiefly because of a frantic skipper up front seeking immortality. Just more 'grass'. So radar was set backwards months.

After a further crew conference, we decided that the equipment, made in England, wasn't suitable for the tropics. Radial engines, for example, caused less trouble than 'in line' engines.

**28 Sep 1942**

0200hrs A16-226 PLTOFF Moore, Moonlight search. We would have been called out about 11pm to search for a submarine or boat on

the surface. We flew so we could search 'up moon'. The best way to do this is to fly across the path of the moonbeams so at least three crew members could look for a silhouette. My log indicates I was a crew member but I may have been put in as an extra set of eyes. There seemed to be some urgency about this trip. Saw nothing.

[Over the following weeks a number of sorties were attempted in order to get results with the ASV set.]

**6 Oct 1942**

0805hrs A16-247 WGCDR Holdsworth, Formation mock raid. Kitty Interception.

I think this was our last effort to get any results out of our ASV."

The above account is not a generous description of the advantages of ASV, more a description of degree of frustration suffered by early operators of ASV.

Considering the amount of training they received, one has to admire their persistence.

However, Roy's anecdote is not all bad news. He also included the following comment for all the ground radar personnel. His comments illustrate it is sometimes better not to know what is going on.

"This a good opportunity to say 'Thanks' to you chaps who, so often gave us warning to get into out slit trenches safely. On the other hand, when the sirens

went and you were out in the middle of the drome and the nearest trench was a couple of hundred yards away, you caused some panic. Worse though was when you were a couple of hundred kilometres out over the Timor Sea on the way home after raiding Koepang and you would call Darwin to transmit a coded warning [but receive] 'Air Raid Pending - 5 minutes'. We would be left wondering whether there would be an airstrip left to land on, or worse still, we would run into half the Jap air force, complete with fighter cover, returning to Koepang after raiding Darwin. We being a solitary Hudson bomber.'

## Q & A

### WAAAF RADAR MECHANICS

Adding to information so far received on this topic, I received a letter from Keith Weir (QLD).

Accompanying this letter were the details of a reunion in July 1996 for anyone who served at RAAF Station Maryborough. Within the list of nominated attendees are five WAAAF RAD MECHs. They are Valerie Callard, Barbara Daly, Joan Davis, Hazel Holmes and Ruth Inglis. I don't know if these are their maiden names or not. However, it is further proof that the WAAAF trained as RADAR MECHs.

As an aside, I now have a dismayed CETECH at 3CRU. She thought she was the first female Radar Technician, but I had to disappoint her when I passed on this information about the WAAAF at Maryborough. As a consolation though, she is still the first combat trained female Radar Technician.

### 207RS Lilli Pilli

C. Blumenthal NSW has supplied a little more about 207RS and the selection of the site at Lilli Pilli.

"The story was told that WGCDR Pither spotted the two towers at the old 2UE site and thought that they would be suitable for an ACO station. In the event, the steel towers were too close together and the steel was unsuitable so they had to be demolished and wooden ones erected at the correct spacing.

After I returned from Darwin to IRIMU in early 1943, I was in charge of No 2 Technical Installation Party and, in addition to new stations, we installed a number of LW/AWs at fixed radar station locations because the fixed stations would take some time to complete. One LW/AW was installed at Lilli Pilli to be used until the ACO was fully on air and calibrated and, also, to further train the operators. At that time, the station was working but not operational for some reason.

Perhaps the calibration was affected by the site. It was also in an area of high lightning strikes due to the poor conductivity of the ground."

### ASV RADAR

A little further research into the development of ASV in Australia has revealed some more information in answer to Ted Dellit's question in the last issue.

Four ASV sets were brought out from England in 1940 and fitted to Hudson aircraft based at Richmond. This was completed in August 1940. The ASV was regarded as a curiosity and there was no systematic use of this equipment. On 23 December of that year, a Hudson, with an RPL observer on board, did locate a submarine off Wollongong using the ASV equipment.

RPL's development of ASV was centred around the obsolete Mk I set. This was eventually scrapped and the ASV Mk II was put into production by employing the PMG Department.

In March 1942, the first Australian made ASV equipment became available and was fitted to Catalinas. Hudson and Beaufort aircraft followed later. This radar had considerable 'teething troubles' and it was not until December 1942 that ASV could be considered operational. (This is borne out by Roy

Lugg's story earlier in this edition.)

At the same time ASV Beacons began being produced with the first tests taking place at Rathmines NSW in December 1942.

### AI RADAR

Although Airborne Interception radar was often discussed within the RAAF, it was never fitted to RAAF aircraft.

In January 1941, 54 AI sets were included in the original order for radar equipment. It was intended to fit this radar to Beaufighter aircraft and employ them as nightfighters. Before it arrived in Australia, the scale of Japanese night attacks was very small and it was decided that there was no real need for nightfighter defence.

At the end of 1942, the Americans arrived with the AI Mk IV equipped nightfighters and these aircraft were allocated the night defence role.

### ASD/ASG RADAR

In May 1943, the first centimetre radar sets arrived from the US. This radar was fitted to Ventura (PV1) aircraft. These were the ASD sets and were 'full of bugs'. The set was developed by RPL but remained only fitted to the PV1s. These aircraft were to be employed for sea search activities north of Darwin.

About this time, ASG equipment began to arrive but this was too bulky to fit to RAAF aircraft. Again RPL developed this radar but it was only fitted to a Beaufort aircraft for experimental purposes. In January 1943, all Beaufighter aircraft were wired to receive ASD radar in anticipation of using them as torpedo bombers. When the RAAF dropped this plan for the Beaufighter, the radar were not fitted.

#### SCR 717/APQ5B

Early in 1944, the US stated that the B-24 Liberators available to Australia would have SCR 717 and AN/APQ5B radars already installed. The SCR 717 was a 10cm Sea Search radar and the APQ5B was a highly specialised radar used, in conjunction with the SCR 717, as a low altitude bomb sight (ie below 2000 feet). This new equipment also added to the radar training problems facing the RAAF. The lack of documentation and trained personnel caused further delays in getting this equipment operational. At the end of the war, the RAAF had 500 aircraft fitted with radar (of various types). These aircraft were predominantly Hudson, Catalina, Beaufort and Liberators. I hope that this has added to the question raised by Ted.

#### 61RS Peron Island

I was a Radar Mechanic at the site [61RS Peron Island] when the station was established about May/June 1943. Although this tests my memory, I may be able to add something to the story of Peron Island. The [station] personnel were gathered at Batchelor NT and with three DC3s (I think) were flown to the mainland adjacent to the island where there was what seemed to be a disused airstrip. During the flight, the American crews flew over protected waters (ie a no fly area) and we had the doubtful honour of being fired upon by the RAN on patrol. Puffs of smoke behind the tailplane as we dived indicated that the Navy boys were not bad shots.

We barged across to the island where most of the installation - mess hut, power supply and water supply - had been built by an earlier construction party. There was little difficulty in getting the equipment on air and, throughout the 14 months I was on the island, the serviceability of the equipment was outstanding. Other engineers at Peron Island were Col Jacobs and Johnny Brown. I have had no contact with anyone who was at the start of the station but would welcome talking or writing or meeting with others who were involved.

*(Jack Baker NSW)*

**Q:** In Volume 5 of "Units of the Royal Australian Air Force - A Concise History" (compiled by the RAAF Historical Section) there is a statement that 162RS, 302RS and 352RS were in Darwin on 16th January 1945 and then at Morotai on 31st January 1945. How did these units get from Darwin to Morotai? Did they go direct by air and/or ship through what was, then, Japanese occupied Territory, or, did they go east through the Arafura Sea and Torres Strait, around the eastern tip of PNG and then along the north coast? Any other details of their trip (ie type of aircraft, name of the ship etc) would be appreciated.  
*(Ted Dellit NSW)*

#### Faded Echoes

A column dedicated to those who may longer be with us in body but their spirit remains.

**Harry Belford** passed away 30 Nov 1995. Harry was the Medical Orderly with 322RS Tanah Merah DNG. He battled ill health for some time but always enjoyed life to his last day.

**Owen Driscoll** - 26 Jan 96  
**Roy Haines** ex Radar Operator from Townsville, also served in New Guinea.

**John Caudell**

**Eric White**

**John Giraud**

**Max Goodrich**

**Harry Strickland**

**B. Trotter**

## THE CLASSIFIEDS

### GCI VEHICLES AND PERON ISLAND

Morrie Fenton is still anxious to copy any photos of Crossley or International vehicles when they employed as GCI vehicles and trailers. He is also pursuing photographs of Peron Island. He wishes to duplicate the photos and will return the originals, promptly, to the owner. They are to be employed in future historical productions he is developing. The story of 39RS at Port Keats is now completed and is about to be printed. If you are interested in securing a copy at a very reasonable price, please drop him a line at the address below. The 38RS booklet is still available from the 3CRU Social Club if you haven't obtained a copy yet.

*M Fenton*

Walter Woods (Radar Mechanic)  
344RS Montalivet  
last known in Queensland

Wal Reynolds (Radar Mechanic)  
344RS Montalivet  
originally from Wagga Wagga NSW

Gordon Davis (Radar Operator)  
20RS Tomaree, 162RS Balikpapan  
originally from Sans Souce NSW

If you can help, you can contact Laurie by writing to:

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