

# When I Think Back...

by Neville Williams

## Archie Caswell: Radio dealer, serviceman, 'ham' and a modest hero in Japanese POW camps - 1

A local radio dealer and repairman in Queensland during the 'Golden age of radio', Archie Caswell joined the RAAF but ended up as a prisoner in a Japanese POW camp. There he defied his captors by contriving forbidden radio receivers from unlikely oddments, and boosting the morale of his fellow prisoners by intercepting news from allied short-wave broadcasters.

In respect to the Archie Caswell story, our regular 'Think Back' heading is something of a misnomer because, far from being something I remember, the story is as new to me as it probably will be to most readers.

It surfaced only because Darryl Kasch, a radio history buff from Maryborough in Queensland, reacted to a reference in the *Maryborough Chronicle* and followed it up. Thanks to Darryl, to fellow radio historian Ray Kelly and to some of Archie's relatives and friends, it was featured in the Historical Radio Society of Australia's *HRSA Newsletter*.

Darryl Kasch, however, managed to locate and interview Archie's widow — I have a copy of the relevant cassette tape — and was thus able to 'flesh out' the original story. Having done so, he felt that it deserved wider publication; hence this present two-part article. By way of further authentication, Darryl also got to see and decipher Archie's original wartime diary.

### Country born and bred

A.H. ('Archie') Caswell was born in July 1913 in Murgon, Queensland — a township in the Kingaroy area, about 150km NW of Brisbane. The area had reportedly been pioneered by the Caswell family, who had set up their home there, along with a timber mill.

Archie was the youngest of 10 Caswell children and, as such, would appear to have had access to a better education. He attended Murgon State School and subsequently the Ipswich Grammar School. In the meantime, his eldest brother had set up in business in



**Fig.1: Archie Caswell pictured in RAAF uniform before the surrender to Japanese forces. Before him lay 3-1/2 years in a POW camp, and work on the infamous Burma railway.**

Murgon — fruit, lollies, etc., — and, on leaving school at 15, Archie prevailed on him to set up a sports store, as well.

Archie himself headed off to Brisbane, intent on finding out how to re-string tennis racquets, mend hockey sticks and so on. In truth, his real interests as a teenager were in wireless and aviation, and he subsequently decided to enroll

also with the Marconi School of Wireless — completing the course mainly by correspondence, after hours.

Back in Murgon, according to Archie's widow Desley, the new Caswell 'sports' store betrayed these diverse interests by displaying all manner of extraneous 'bits and pieces', including phono records. As well, Archie sat for and obtained an amateur licence, which was put to good use when the bands were open and he could sneak out for a quick QSO!

In due course, the two brothers opened a second 'sports' store in Kingaroy (Bjelke-Petersen country) adding complete wireless receivers to their stock-in-trade. In this setting, Archie became involved quite early in repairing radio sets and putting his Marconi course to good practical use. While references to his pre-war activities are sketchy, the picture that comes through is of a typical country retailer-serviceman, selling his quota of receivers and replacement parts, and responding to service calls from the surrounding area.

Certainly, when he joined the RAAF in 1941, he described himself as a radio mechanic. His personal ambition had been to combine his two major interests and become an airborne radio operator.

The RAAF had other ideas, however, and accepting his 'radio mechanic' status at face value, promptly assigned him to a conversion course as an RAAF Radar Mechanic. As such, he was despatched to Sydney University to study the design and construction of the first wave of Australian-built radar equipment.

## Right place, wrong time!

Following the Uni course, the 'rookie' country-bred Queensland trainee, who had studied top-secret radar in Sydney NSW, was attached to the mainly Melbourne-based No.1 Squadron and posted to Singapore to install radar equipment in American sourced Lockheed Hudson bombers. Three months later, the Squadron was transferred to Palembang in Southern Sumatra, where they operated for barely a week before the Allied Forces based on Singapore capitulated to the Japanese!

Initially, the Unit hoped that they might escape by arranging a *rendez-vous* with Allied shipping at a beach in Java, and RAAF 'sparks' including Warrant Office Caswell reportedly managed to get a radio message through to Australia to that effect. However, for whatever reasons, no rescue ships appeared and Archie and his mates ended up as prisoners of war.

The horrors of the Japanese POW camps and the Burma Railway project have been extensively documented, especially in regard to the work of Dr Edward 'Weary' Dunlop, but little has been said about the role of 'underground' radio in keeping the prisoners informed about the true progress of the war. It was in this area that Archie Caswell made a vital contribution.

Had it been left to Archie, little might ever have been known of his 'underground' radio activities. According to his wife, his attitude on returning home was to blank out the past and get on with the job of re-building his life. The POW camp had robbed him of 3-1/2 years, and he saw no point in reliving the experiences and adding to the deficit. However, she and other acquaintances, including an RAAF mate FLt. Ken Smith finally convinced him that he owed it to posterity to tell his story. So after a couple of years of badgering, he finally did spend a sequence of evenings at the kitchen table putting pen to paper — literally!

## Archie's own account

What follows is Archie's account of his experiences as a prisoner of war, substantially in his own matter-of-fact prose:

*It was March 1942 and, after being captured by the Japanese in Java, we prisoners were transferred from Garoet to the Capital (Batavia). Here we were imprisoned in barracks then known as the 'Bicycle Camp', named after the Dutch bicycle Brigade previously housed there.*

*After tolerating for a few weeks the spate of rumours circulating in the camp, the troops became very impatient and I remember someone saying: "What's wrong with you radio chaps? Can't you build a receiver to get fair dinkum news?"*

*The natural reply was: "What with? Match sticks?" However, they had made their point and we explained that top priorities for a practical receiver were valves and power supply — preferably batteries. One chap, a few days later said: "Here we are", and produced an enormous graphite-anode transmitting tube. It was not of much use but was hidden away, anyway.*

*It so happened, at the time, that the Japs had been demanding that our camp adjutant nominate a radio mechanic to repair a few radios, in nearby Dutch homes that had been taken over to accommodate Japanese officers.*

*I was 'dobb'd in' for the job, to my*

*somewhat dismay. If they discovered that I was an RAAF radar mechanic, I feared that I might 'get the treatment' to reveal what I knew. Fortunately, that did not happen and the first receiver fixed for them was an 'Erres', made in Holland. The fault was a dead RF stage, which I simply bypassed by loosely coupling the antenna to the 'mixer' valve input. This gave me a surplus aerial trimmer, capacitor and resistor, which were quietly removed and brought back into our camp for future use. The next receiver was a Philips (Holland) make, but with nothing 'scroungeable' except a few lengths of wire.*

## Sensitive about news

*While working on this receiver, I accidentally hit a news broadcast from the BBC on 25 metres. I smartly turned the volume down, but the Jap officer must have sensed that it was the News. He strode over and said "Englander"*

**FRYAR STREET, MURGON, QUEENSLAND.**

**AUSTRALIA**

To Radio.....Confirming our QSO of.....at.....B.M.T.

Ur.....Sigs QSA.....R.....Band.....WX.....

# VK4CA

TRANSMITTER.....RECEIVER.....

REMARKS:.....

PSE QSL 73s. es DX fm ARCH. H. CASWELL, Ow./Op.

VK2LZ. QSL Service, 321A, GEORGE ST., SYDNEY.

**QRA, MURGON, QUEENSLAND, AUSTRALIA.**

Tx.....Rx.....

ANT.....ANT.....

**VK4CB**

To Radio

Ur.....Sigs WKDHR.....

At.....E.S.T. were QSA.....R.....

T.....ON.....MC. QRM.....QSB.....

73 ES C.U.A.G.N. DE.....ARCH. H. CASWELL.

**Fig.2: As a spin-off from his course at the Marconi School, Arch qualified early for his amateur 'ticket'. These QSL cards from his personal papers show different callsigns at a different address.**

## WHEN I THINK BACK

When I nodded — *Bash!* — and I copped one. He made it plain that England was 'no good'; 'Australie' not so bad, but news forbidden anyway!

Another of their receivers yielded a .00025mfd capacitor (plate bypass) and so on. Back in the camp, some progress had been made with 'scrounging parties' organised by my main partner in crime — Brian Breillat (also RAAF).

The bright spot was the finding of a 1N5G battery valve, brought in by Frank Huxham. As a pentode RF amplifier with a 1.5V, 50mA filament, it was just what we wanted and, asked where he had found it, he said that there were quite a few in a store in Batavia — but the Jap guards were very alert.

A few days later he marched in with two more 1N5's, at quite a risk; but he had eluded the guard search by taping the valves to his privates. You can imagine the chortles and the comments during the retrieval of the two tubes!

At this stage we were at last able to give some meaningful thought to the form of radio which would be the least detectable. Work parties were going regularly to the 'Socomomy Vacuum' oil terminal at Tan Jon Priok, a few km away, which was the source of a few useful items: a sheet of tinplate wrapped around my waist, a piece of solder and even a soldering iron. No soldering flux was available, but coconut oil proved to be reasonably effective with the tinplate.

The field windings stripped from a car generator provided wire and an old telephone earpiece was swiped from a telephone box. Another airman presented me with a flying helmet complete with headphones, which he had somehow managed to smuggle into the camp.

### Time to risk it!

The situation was beginning to look rosier — despite rumours to the effect that two Dutchmen in Sourabaya and another in Batavia had been sentenced to death for the illegal operation of radio receivers!

In the fervent hope that this might be just that — a rumour — Brian Breillat and I decided to rig up a home-made 'dixie' to serve as the chassis and case

for a practical receiver, which would be a two-valve affair.

The dixie was made a trifle deeper than the Service Issue original, so that the two 1N5's could lie on their sides in the bottom. A false bottom was fitted, leaving a space at the top about one inch deep to hold a layer of cooked rice (our all-day, every-day menu).

In the meantime, other volunteers had been collecting standard 1.5V torch cells from Chinese traders or wherever. The objective was to collect a few dozen, on the assumption that we needed about 40 volts to power the receiver. As no (octal) sockets were available, a couple of straps around the waist of each tube,

tinplate with waxed wooden end plates; the wonder was that it worked at all!

### Success in sight

Wire stripped from an old transformer was wound in a bunch to form a makeshift RF choke, while more of the same, insulated with waxed paper, was wound over a core provided by short lengths of fencing wire to form a crude audio frequency choke. The receiver had no terminals, because they would have given the game away. Instead, connections to batteries, headphones and aerial relied on different size wires so that connections could be made in the dark. It was decided to concentrate on one

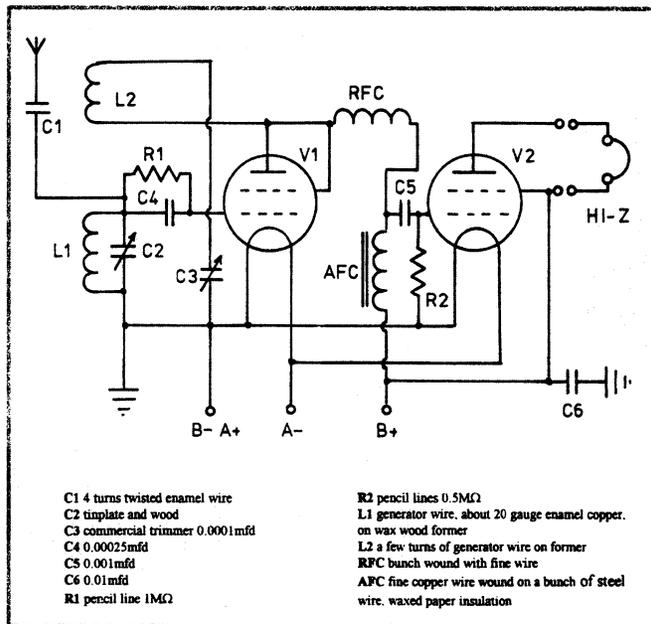
shortwave band only, 31 metres being chosen as the best band for all round night-time reception.

While construction was in progress, we were gradually accumulating more odds and ends, and where to hide it was becoming a headache. The barracks had a completely tiled floor, so that digging a hole seemed out of the question. However, while lying on the floor one night comparing notes, I found that a 6 x 6-inch tile near my bed seemed a trifle loose; when I tapped it harder, it sounded even more so.

Needless to say, we set to work with a knife blade to scratch out the filling around the edge and eventually dislodged the tile to expose the cement below. Each night after that the excavation continued, with the tell-tale cement chips being scattered

around the grounds. It was tedious work, with many interruptions. As a precaution we had posted two guards of our own to warn of any Japs headed in our direction. Jap guards could charge through any time of the day or night, and camp rules required that all prisoners must stand to attention when they did so.

There were a few near misses, but eventually we had a space of about 1-1/2 cubic feet, a second tile having been dislodged to provided easier access. We also constructed a wooden frame to support the tiles and the weight of anyone who might walk across it. The cavity was lined with the remnants of an old gas cape to keep out moisture, and bar soap was used to seal around the perimeter of the tiles to give the appearance of an untouched floor.



**Fig.3: As represented in the HSRA Newsletter (April 1994), the circuit of the first battery powered receiver contrived by Archie Caswell and other POWs to intercept Allied news broadcasts on the 31 metre band.**

soldered to the tinplate base served to hold them in position. Connections were soldered directly to the pins.

The circuit was a common leaky-grid detector used as a triode, because no potentiometer was available to control the screen voltage. The audio stage was wired as a normal pentode (see circuit)...

For the detector grid condenser, we used the .00025mfd removed from the Jap officer's receiver, with a pencil line drawn between the terminals to serve as a '2-megohm' resistor. In fact, the carbon track was fiddled from time to time to get the best possible results.

For the tuning and reaction coils, we used the generator wire wound on a waxed wooden former (wax by courtesy of Soconomy Vacuum).

The tuning capacitor was a crude looking wooden affair made from

## 'Underground' radio

The surplus gear was stowed in the bottom of the excavation, leaving enough space on top to accommodate the receiver and batteries. (Incidentally, if the barracks are still standing, some of the gear is probably still there today!)

In the meantime, the final soldering had been completed (in the kitchen) and the radio was ready for an initial try-out. By good luck, the receiver worked. The BBC was finally located and a news bulletin intercepted. Everyone was jubilant!

In fact, the signal was marred by a great deal of whistling and scratching. The shielding and construction made reception very touchy, and the regeneration was too fierce. I had to hold the case in my hand to stabilise hand and body capacitance effects. Clearly, modifications were called for.

The provision of an adequate aerial also posed a problem. It was solved by unravelling a rope and then re-twisting it, with a length of wire from the generator down the centre. The rope was then strung across the verandah to serve as a clothes line, its role being emphasised by being adorned with sundry pieces of 'washing'. One loose end of the rope just happened to dangle innocently down the wall near the head of my bed, making the end of the wire easy to locate after dark. In fact, the aerial was so well disguised that it survived all inspections and was still in use for its illicit purpose two years later!

The receiver itself had meanwhile been 'tamed' quite a lot and many news bulletins were received. These were passed directly to the Commanding Officer of No.1 Squadron, Wing Commander Curly Davis. But the receiver still suffered problems with instability and the effects of humidity and had, at times, to be aired for 5 - 10 minutes before the news to ensure satisfactory regeneration.

## Improved receiver

It was therefore decided that the time had come to plan a new model — especially as we had acquired a potentiometer which would allow us to use a pentode-connected detector with variable screen voltage, which should ensure much smoother control of regeneration.

As it happened, about this same time, the Japanese had begun selecting various POWs to write letters back to Australia, which were to be broadcast in English from 'Radio Nippon' transmitted on short wave from nearby Batavia.

After a few such broadcasts, Allied officers expressed doubts about the validity of the transmitted versions. I was therefore requested to modify the original receiver to monitor Radio Nippon. Handed copies of the original letters, I was requested to indicate any alterations and cross out what was not transmitted. This proved quite a job, because the transmission occurred before

some sheet lead was acquired and a little sulphur, the idea being to make galena by fusing the two together.

The problem was how to go about it, and someone suggested that we use the 130-volt mains to get the power. In the process, the lights were mysteriously 'fused' several times; but a small fragment of galena was eventually produced and worked reasonably well — on the 80-metre Nippon station!

## Receiver in a bottle

It was decided that the new valve radio would be a three valve affair: RF stage (1N5 pentode); detector (1N5 pentode); audio (1N5 pentode, later wired as a triode). The whole thing would be constructed in a water bottle.

Bill Moore, an RAAF radio officer, had come up with the remnants of a command receiver and from this we obtained small coils, a beautiful small ganged variable capacitor and sundry other useful 'bits'. To accommodate the set, we had to fabricate a special water bottle a trifle larger than the issue model.

Special harness and felt covers were made to cover the bottle and it looked the perfect fake. The mouth of the bottle had a tube sweated in which went right down to the base, where it was securely soldered, enabling water to be actually poured out in the event of a too-inquisitive search. (The receiver was built on a separate base surrounding the central tube).

Variable screen voltage was now incorporated, and anode-bend detection made the receiver work quite smoothly. Tuning was from the bottom by slotted shaft, and the better materials ensured improved sensitivity. Twisted wire connections were retained in preference to terminals, serving also to minimise bulk.

(At this point, I should mention that thanks were due to an Army friend Ray Single, who helped quite a bit).

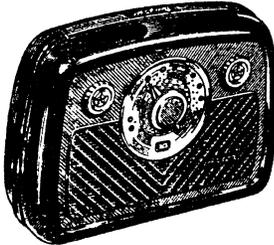
A lesson learned in Java was that all news had to be controlled. Hut mates were a source of concern if they tended to discuss the news too openly or too loudly, betraying their subject by words like 'Coral Sea' which were liable to be picked up by the Jap guards. Hut searches became uncomfortably frequent as a result.

Dissemination of the news was from myself to Flt. Lieut. Ken Smith and the CO of the unit, who would then disseminate it to the Company of 'Kumi' officers — a much better result than relying on casual conversation.

We'll continue the Archie Caswell story next month.

(To be continued) ♦

**3-WAY PORTABLE**



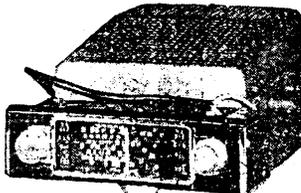
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or  
Use it  
anywhere

Price 35 gns.  
6 Valve  
performance

OR YOU MAY REQUIRE AN

5 valve or 6  
valve CAR  
RADIO

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Priced from 39 GUINEAS at

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111 UPPER ADELAIDE STREET. Phone 1211.

**Fig.4: As a POW, Archie was a world away from his family, his business and his customers — once accessed by adverts like this in the local papers. But, in the camp, at daunting peril to his life, he defied his captors by contriving and operating forbidden radio receivers.**

lights out and our own guards had to keep a very watchful eye for approaching Japs. However, the marked duplicates indicated clearly that the Japs only transmitted letters which were non-critical of them, and that gave rise to ruses to evade their censorship.

One which went over the air to Melbourne told how the Japanese fed everyone well, treated us kindly, gave us gifts and it was just like being in 'Ringwood'. This obviously went over the heads of Nippon, but the real implication was sensed in Australia.

Since quite a few of the POWs could understand 'Nippon' lingo, Brian Breil-lat decided that we should be able to rig up a simple crystal set to intercept the Batavian transmissions, if we only had some detecting material. In due course