ADF-Serials Telegraph

Volume 11 Issue 5, 2021

Welcome to the ADF-Serials Telegraph.

Articles for those interested in Australian Military Aircraft History and Serials

Our Editorial Team in this final issue are: Garry "Shep" Shepherdson, John Bennett and Gordon Birkett.

So big is it that this is the first Issue to be supplied in Two parts

Closing words by the Editorial Team:

> **We, the contributors, did this as a hobby, for free. Each of us devoted our own time (and money) into researching topics of Australian Defence Force (and closely related) aviation history for the benefit of this site and those who would use it. We did this to enhance the historical record and to correct errors or inaccuracies that may have crept in to it over time and to provide a reference source for those with an interest in the subject. We spent a great deal of our own time in providing this free source of information with the hope that it might promote the ADF-Serials website and enhance its potential standing as a source of accurate, valuable information relative to historical ADF aviation.**

The main ADF-Serials website (located here: http://www.adf-serials.com.au/home.htm) contains the databases and the image gallery (which is located here: http://www.adf-serials.com.au/Gallery.htm). Using it will save many inane queries as the facebook page was never designed as a research tool. The main site is free and is the product of thousands of hours of dedicated, ongoing work by our volunteer membership. Many of the answers to your questions can be found there.

If you have a question about a topic of relevance or would like to raise a discussion point which is of relevance, to the ADF-Serials website, rather than post it on facebook for it to be accessible ONLY to people who have decided to support a social-media empire (not everybody wants to) and which can only be searched by those people thereby excluding everybody else, why not post it on our very own message board?

The message board, or "forum" is located here: http://www.adf-messageboard.com.au/invboard/ and can be very easily searched by ANYONE who has an interest making it infinitely more useful than facebook.

Also, you are far more likely to receive a considered and informed response. It might not be instant gratification, but it is far, far more satisfying in the medium to long term.

Special Thanks: To those readers who have enjoyed and received some value from the content that we have offered. To Andrew Willox for building of the BE2a replica and his story about this great effort, to Kevin Brooks who has been patient, and lastly, a very special thanks to all past authors in bringing you a newsletter packed with historical research over many, many years.

And from JB ***"The Newsletter was the brainchild (lovechild ?) of Gordy. He started it many years ago, built it, nurtured it, and handed over to Shep for the past few years. Shep brought a new professional look, which we all enjoyed, trying to steer it away from P-40s (LOL)...we were all just sad to see it wasn't of much interest to the readership here. So thankyou Gordy and Shep. I am sure we will see the efforts of Gordy's work in the future, and not just his stalwart maintenance of the Kittyhawk and Spitfire database."***

All in all, as my last words, twas a fantastic Team effort owed so much to JB and especially Shep in recent years as rotating Editors! Appreciated and so, that said, this is the FINAL issue of the ADF-Serials Telegraph in this format for the foreseeable future.

Gordy

In This Issue

The Royal Aircraft Factory BE2a
In Service in Australia

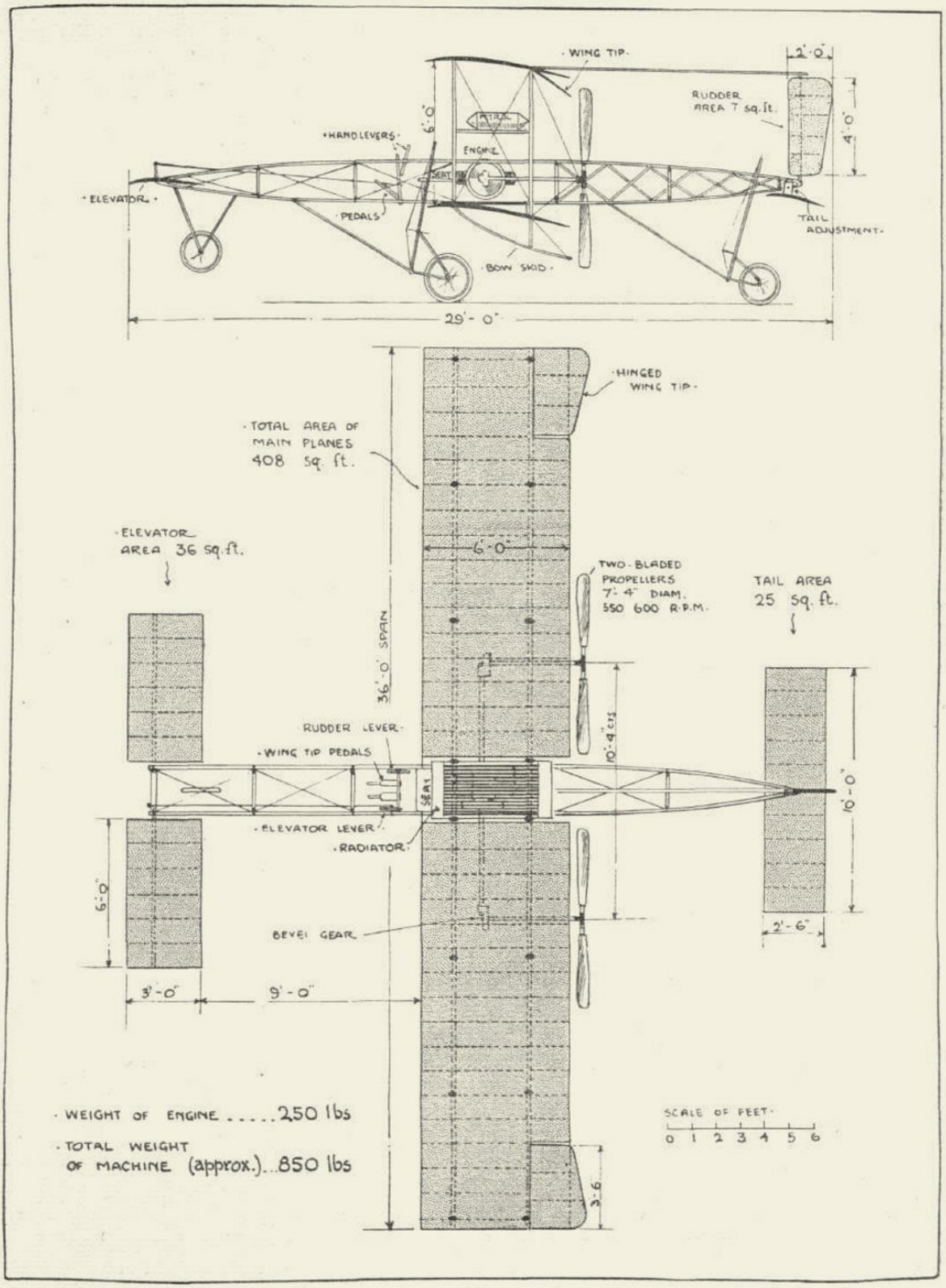
Andrew Willox

Any mention of the early BE types must explain the developmental work of Geoffrey de Havilland which led to his first mass-production aircraft. De Havilland had been experimenting using a legacy of £1000 from his still-living Grandfather. His first design was destined to fail during its maiden take-off – about 15 feet above the ground – leaving de Havilland, with a badly sprained wrist, amongst a twisted mass of fabric and wood. His friend, Frank Hearle, who had been assisting him, thought he had been killed until young Geoffrey gave a wave from amongst the wreckage so as to show he was still alive.

Undeterred, the pair started again from scratch, this time with a more conventional biplane pusher arrangement that echoed the similar thinking of their contemporaries. The only component that came from this first attempt was the engine that he had designed himself and had been called the Iris. In the 1960s this engine was reconstructed by De Havilland apprentices and when it started (at the first attempt) Geoffrey de Havilland declared that the loud clattering was exactly how it had sounded! Biplane No.2 was more successful and provided de Havilland with a stable airframe upon which he could actually begin to learn to fly. At this juncture, it's perhaps important to note that prior to this point neither experimenter had seen an aircraft in flight and, of course, of the two of them, it would be Hearle to achieve that distinction.

Geoffrey de Havilland with frank Hearle and Biplane Number 2. [*Andrew Willox Collection*].

De Havilland appears to have shown a natural aptitude for flying and quickly mastered the vagaries of his machine, becoming confident enough to take Hearle up and then, *with Geoffrey Jr in her arms*, his wife Louisa (Louie to all), who appears to have accepted that such an historic occasion was perfectly safe for a baby! De Havilland was now becoming known for his flights, even though they were only in the form of brief hops and low circuits but he felt reluctant to actually display his aircraft at the new Aero Show at Olympia in the presence of such well-known aviators such as Deperdussin and the Short Brothers, although the idea of showing his engine did appeal, and an acquaintance – Frederick Handley Page – said he would be happy to put it on his stand.



Front elevation and plan of Mr. G. de Havilland's first biplane.

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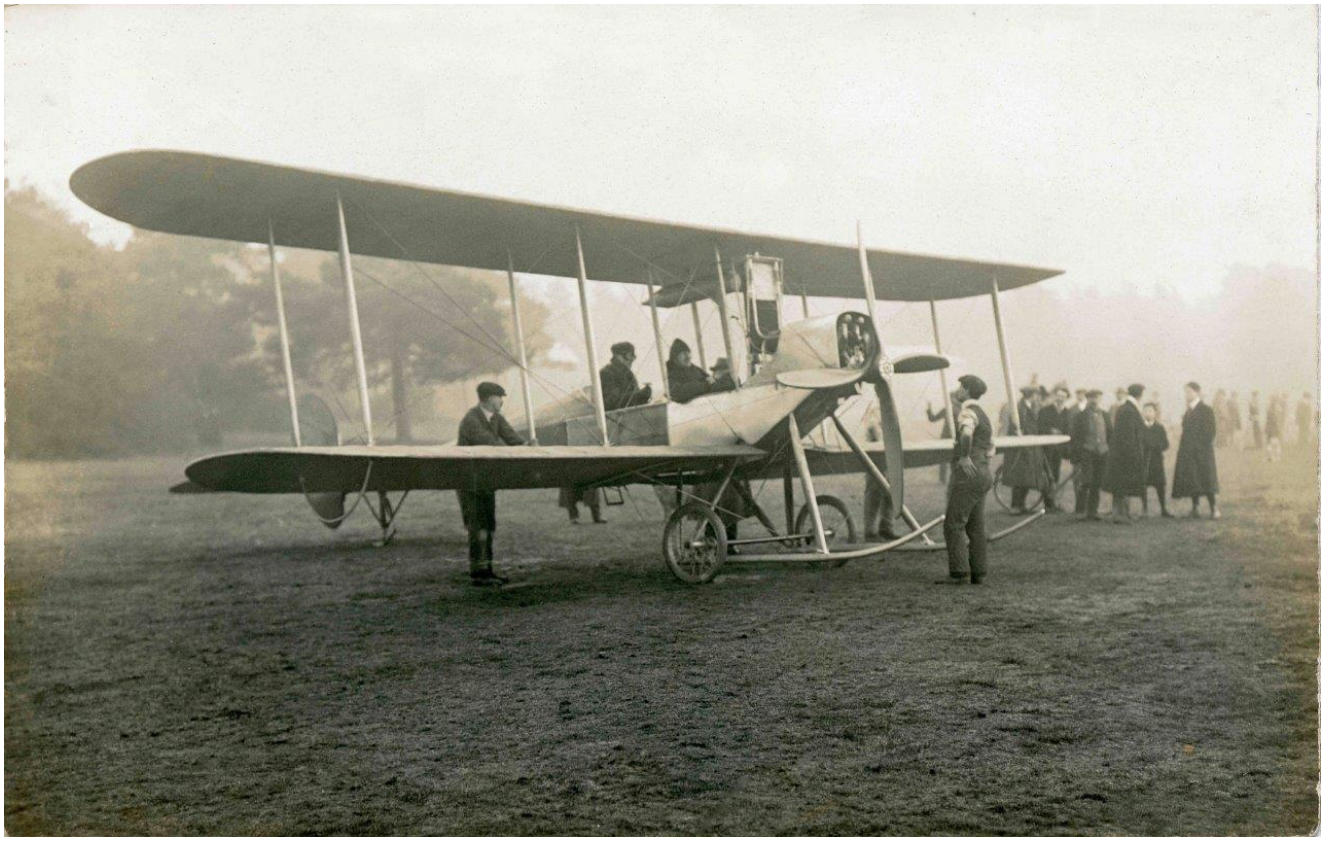
Two-view illustration of de Havilland's first biplane. [*Flight Magazine*].

Later in 1910, at the Olympia Motor Show, de Havilland was reacquainted with Major F.M. Green. They had known each other as students when both worked in the Midlands at Daimlers and Wolseley. Green was now a senior engineer at the Government's Balloon Factory under Mervyn O'Gorman and enquired of de Havilland where his work was taking him. The problem of money to continue his experiments was always a consideration and Green suggested that de Havilland might like to consider joining him at Farnborough. The offer appealed to de Havilland and after a letter to O'Gorman and then an interview he was offered a job as chief test pilot and designer, with his friend Hearle also being accepted as an engineer.

It's common knowledge that the first aircraft design undertaken by the Factory that de Havilland was involved with was a subterfuge concocted by O'Gorman. A Bleriot monoplane of tractor configuration, that had been sent for repairs, turned into a rather ungainly pusher design with the empennage forward of the mainplanes in the manner of the 14 bis of Alberto Santos-Dumont, and named the SE1, for Santos Experimental. No-one seemed to bat an eyelid and as this subterfuge had proved successful a similar request to the Master of General of Ordnance was made when, in April 1911, a Voisin that had been presented to the War Office by the Duke of Westminster was sent to the Factory for repair. The new biplane that resulted was completed in the autumn of 1911 and was designed by de Havilland and F.M. Green.

The "reconstructed" Voisin was given the designation B.E.1 signifying Bleriot Experimental. It was, in its day, an advanced design and represented a great stride forward by Geoffrey de Havilland from his primitive pusher designs and the rather outlandish S.E.1, with which he had been associated.



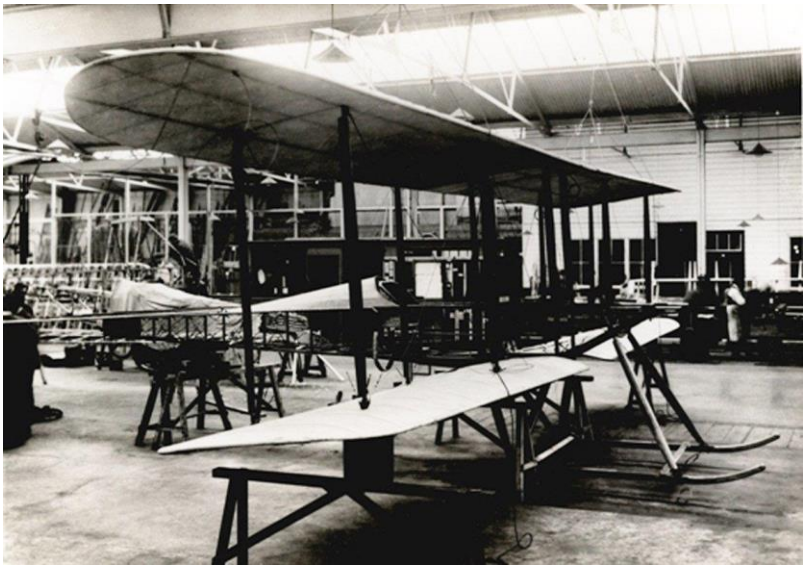
B.E.1 on Farnborough Common during 1911. At this time the public could freely observe the Royal Aircraft Factory's top secret activities. [*FAST*].

BE1 was a breakthrough in the way aircraft were to become for generations and quickly after the Factory constructed another, almost identical aircraft, which was named BE2 – simply because it was the next one to the same design. BEs 3 and 4 were of a different design by John Kenworthy but BEs 5 and 6 reverted to the BE2 convention. Various wing planforms were tried out but all had the Bleriot style of wing tip, which at the time was a proven success, having been verified by Eiffel with data sent to the National Physical Laboratory for wind tunnel analysis. The differences which the "BE2s" tried out related to unequal versus equal span wings which were made standard in May 1913 and all BE2s in service were either modified to this either at the factories of the sub-contractors who were building them, or in the field.

BE2, the second BE, was subject to a wide range of experiments, here with an oleo undercarriage. [*FAST*].

One of the subcontractors was The British & Colonial Aeroplane Company at Filton, led by the experienced and visionary industrialist Sir George White. It was a decision by the Australian Government in June 1912, to order two Royal Aircraft Factory BE2as amongst other equipment for its proposed flying school that brought about the connection. Eventually, the initial two types of trainers selected – BE2as and Deperdussin monoplanes – were considered to be far too racy for novice pilots, so the Bristol Military Biplane (Boxkite) was ordered in December of that year to complement the other types for elementary work.

An advertisement for "Two Competent Aviators" resulted in Henry Petre and Eric Harrison being appointed as the first flight instructors at Point Cook. Petre was at the time working for the British Deperdussin company at Highgate, London and Harrison was part of the instructor team for Bristol on Salisbury Plain flying Boxkites. Whilst Petre came to Australia to supervise the construction of facilities at Point Cook – a square mile of flat salt scrub that was being used for sheep grazing – Harrison was directed to stay in England to supervise the construction and delivery of the two BE2as, and possibly oversight of the monoplanes in London. We are fortunate to be able to see one of the BEs being assembled at British & Colonial. It was, perhaps, Harrison that actually took this photo and it provides interesting detail as to the construction sequence.



One of the two BE2as at British & Colonial. [*RAAF Museum*].

Both aircraft were test-flown during October and November prior to dispatch, one of them certainly by Geoffrey de Havilland. When it came time to ship the aircraft the Deperdussins and the Boxkite were ready first and left England at the end of 1912. Their arrival in Australia was not a happy one. Careless packing and exposure to the weather and sea conditions left all the fabric coverings severely mildewed, which required recovering in a light sail cloth. The BE2s faired slightly better, perhaps a lesson learnt. Departing on the SS Hawkes Bay, they arrived on 3 February 1914 at Melbourne and their crates taken to Maribyrnong prior to their final destination of Point Cook. The first flight of the BE2a in Australia was on 1 May 1914.

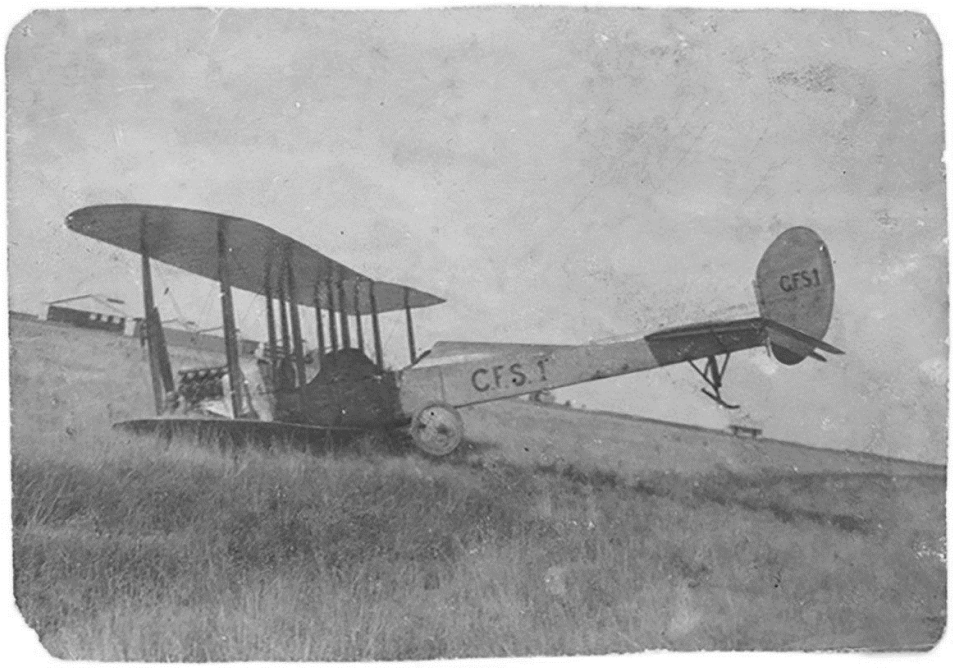
Numbered CFS1 and CFS2, they were the most advanced aircraft in the country at the time and no student pilot was permitted to fly them solo without having attained a brevet. Both aircraft were of a 1912 variant with unequal span wings of 38 ft 6 in and 34 ft 10 in. These appeared to have differed slightly from the standard "Factory" specifications as referenced by the size of the two upper planes on display at the Moorabbin Air Museum. Of note is the chord of these wings. The standard "Factory" chord was 5 ft 6 in throughout the entire BE2 family of variants. The ones at Moorabbin have a chord of 5 ft 4 in. It's unclear why Australia's BE2s were selected to have this variance but this aerofoil did exist as on option. They would have performed with little difference to the more widely-used chord.

Very early on in their life, and as much for novelty as any other reason, Harrison and Petre took one of them on a lengthy flight around the eastern side of Port Phillip, where they flew over the inner bayside suburbs, landing briefly at Albert Park, much to the probable astonishment of local crowds. Whilst there had been other attempts at flight in preceding years in the Melbourne area, this would have been the first sight of an aeroplane either on the ground or in the air.

CFS1, as new. A local man, with a gun, and his boy stand with an airman at the tail. Harrison is in the cockpit. [*RAAF Museum*].

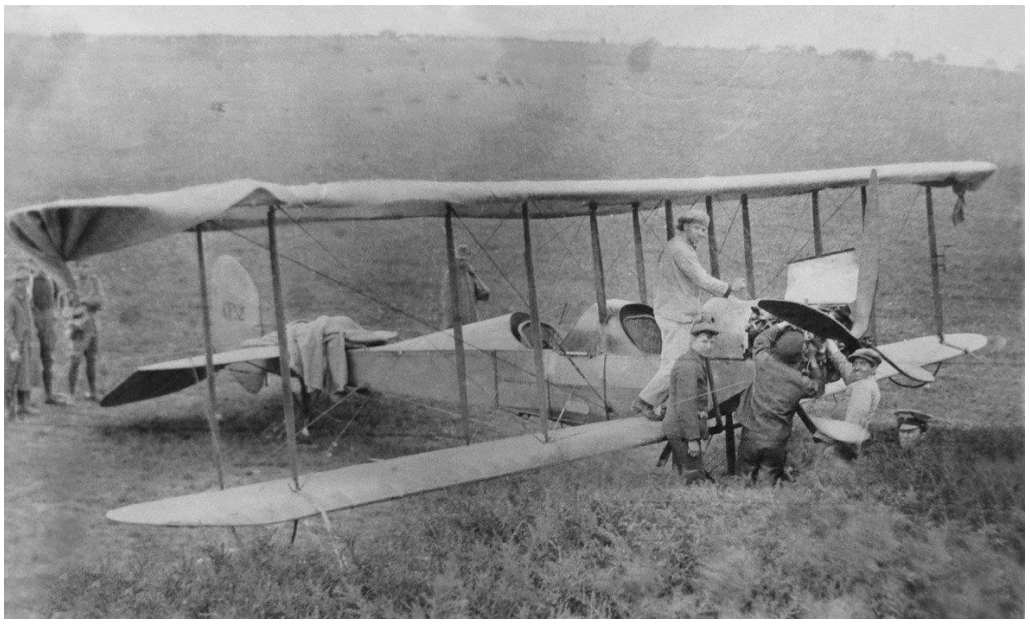
With the first flying course comprising four students – White, Manwell, Williams and Merz – concluding in early October 1914, the successful students and their instructors were photographed in front of one of the BE2s. In November CFS2 was released for active duty in the first-ever planned use of an aircraft during an Australian military sortie. German interests in New Guinea had come to the attention of the Australian authorities who knew there was a listening station based at Rabaul. CFS2 and a Farman pusher type seaplane were crated up and dispatched to Sydney

where they were shipped north. The Australian action found that the Germans had departed and there was no need for aerial reconnaissance, the two aircraft arriving back at Point Cook in their unopened crates. Nevertheless, the will had been there with the recognition that aerial surveillance had potential. After this event CFS1 and 2 were kept busy at Point Cook and served until 1918 as the last remaining BE2as anywhere in the world – certainly with unequal spans. During their time they suffered stoically at the hands of novice pilots whose skills varied considerably, being crashed on such a regular basis that, rather like "grandpa's axe", much of their original structure would have been replaced over their lifespans.



Identification markings changed from time to time, indicating that fabric was replaced on a fairly regular basis. [*Paul R Hare*].

Whilst Henry Petre was forced down with a seized engine on 12 February 1915, one notable mishap, involving a broken connector rod occurred when Richard Williams was forced down at Broadmeadows, which in those days was Army ground and with which Williams was fortunately familiar. This event was thought to be recorded on the following morning by Point Cook's Army blacksmith, Norman Gillies, who took a photograph from the back of the support lorry. William's had can be seen looking up from behind a hedge. Canvas sheets cover the upper plan to prevent damage from an overnight dew and the scene is under an armed guard.



CFS2 at Broadmeadows with Williams behind the hedge. In addition to visible markings, CFS2 can be identified by having the main fuel tank pressure pump mounted on the right hand side of the pilot's cockpit. On CFS1 it was on the left. [*RAAF Museum*].

CFS1 was the first to be finally, and completely, written off in February 1918 when it was dived in the coastal lake, now described as “RAAF Lake” on maps. Whether this is the actual occasion remains to be seen but from the photo it is clear that the aircraft would not have been salvageable, and, in any case, more modern types were now in service at Point Cook, including the rather benign DH6s.

CFS1s final demise. [*RAAF Museum*].

What happened then to CFS2 is a mystery. Records suggest that later in 1918 it was struck off charge and donated to the technical college that later became Melbourne University. This was apparently to encourage the study of aeronautics but no records can be found of its time there or what happened to it.

CFS2. [*Illustration by John Bennett*].

In 2006 the author decided to contribute to the RAAF’s forthcoming centenary of military flight by constructing a replica of CFS2. The project took seven years but was ready for display in time for the event – CMA14 – on 1 March 2014. It can be seen here adjacent to the Bristol Military Boxkite, which flew at the centenary moment, and on display within the RAAF Museum precinct.

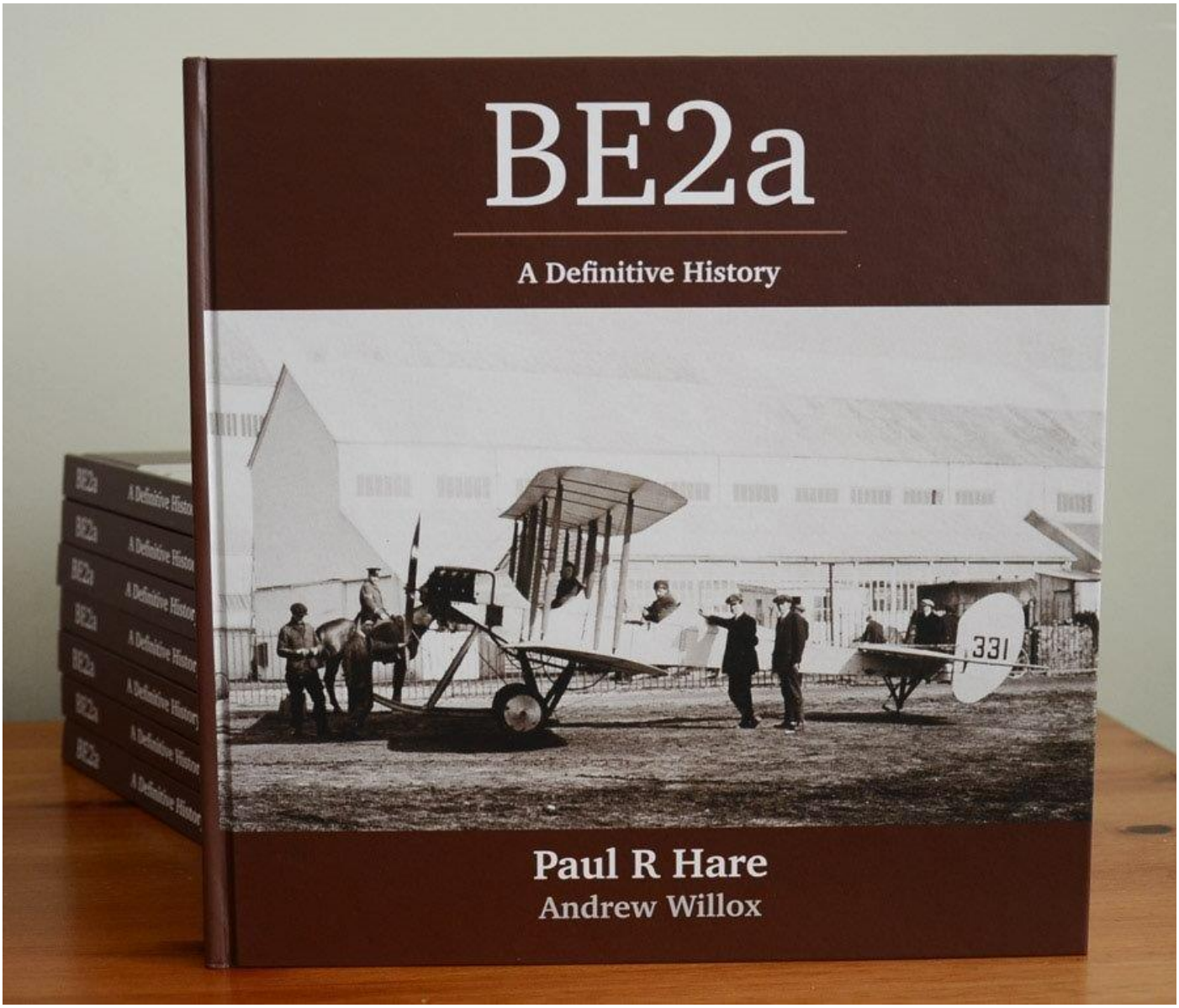
The BE2a reconstruction with its sister ship awaiting display. [*Andrew Willox*].

Rear view of BE2a replica at Point Cook, May 2013. [*Andrew Willox*].

On display within the RAAF Museum. [*Andrew Willox*].

For further reading, *BE2a – A Definitive History* will be available for sale with Australian postal rates from the middle of 2022, ordered from the author.

A corporal tries his hand at being a pilot in CFS2. [*Andrew Willox Collection*].



The Book. [*Andrew Willox*].

Copies of "BE2a – A Definitive History" will be available by sending an email to awillox@skymesh.com.au.

Bibliography

John Bennett, *The Imperial Gift*.
Geoffrey de Havilland, *Sky Fever*.
Paul Hare and Andrew Willox, *BE2a – A Definitive History*.
Farnborough Air Sciences Trust Museum.
RAAF Museum Library.
De Havilland Aircraft Museum.

Honourable Target Lost Face
Attack on Amahai by the 380th BG(H) on 21DEC43

Garry Shepherdson

In so far as the RAAF's North Western Area (NWA) was concerned, American B-24 operations commenced early in 1943 when elements from the 90th Bombardment Group (Heavy) were detached from Queensland.[1] Livingstone noted that:

> The 319th Squadron was selected to operate independently of the rest of the 90th BG from the Darwin area under Australian command.
> The idea had been put to the test by three crews between 12 and 26 January, operating out of Fenton and Batchelor. Four reconnaissance missions were flown …[2]

In fact, at least 22 missions (totalling some 35 sorties) were flown from Fenton and Batchelor between January 9th and February 1st inclusive. The first mission, FEN1 (Fenton 1) was from Fenton, (the next three – FEN2, FEN3 and FEN4 – were cancelled) and the remaining 21 from Batchelor (1 other cancelled). Two of those missions (one sortie each) are recorded as having been 400th BS aircraft the remainder either didn't stipulate the squadron or were 319th BS ops.

> Allied Air is detaching total of four B twentyfour's [sic] to N W Area for indefinite period to complete long range armed photographic reconnaissance and strikes. Results of reconnaissance should dictate worthwhile target. Particular watch to be kept over coast between MERAUKE and BABO for development enemy air bases.[3]

The next day, those B-24s already attached to NWA were ordered to remain until further orders[4] and, before long, the rest of the 319th Bombardment Squadron was formally detached to Fenton (from February 3rd, 1943).[5] Operations resumed from there on February 5th with FEN5, a strike on Ambon with 9 aircraft,[6] 8 of which reached the target with 1 having returned early due to engine trouble.[7]

Livingstone recorded that "five operations (Ceram, Kendari and Ambon three times) were flown in the first month because heavy rain kept the unit grounded for up to a week at a time".[8] Darby similarly recorded that after the flight from Fenton on the 5th that "[i]n the next three weeks, the squadron was able to fly only three missions".[9]

However, with the resumption of operations from Fenton with FEN5 of February 5th, a total of 13 missions were flown during the "first month" from February 5th to March 2nd inclusive. Those missions were FEN5 to FEN9 inclusive, FEN11 to FEN13, FEN15 to FEN17, FEN19 and FEN21. Only four missions (FEN10, 14, 18 and 20) were cancelled due weather. Whilst the cancellation of those four missions resulted in 20 lost sorties, the thirteen missions that did fly amounted to 49 sorties being flown. Of those thirteen missions, four were strikes (one to Kendari and three to Ambon) with the balance being Armed Reconnaissance operations. A fourteenth mission, FEN22, was also launched on March 2nd, but the sole aircraft crashed shortly after take-off.[10]

Arrangements were made to replace the 319th Bomb Squadron with a complete Bomb Group. The 380th Bomb Group was selected and sent from the US to Australia for operations as part of NWA.

The flying squadrons of the 380th Bombardment Group (Heavy) were the 528th, 529th, 530th and 531st Bombardment Squadrons. The 528th and 530th were based at Fenton and the 529th and 531st at Manbulloo, then Long. Operations for the 380th BG commenced with mission Fenton 13 of 9th May, 1943 (FEN13/9 May) when a single aircraft from the 528th BS joined five other B-24's from the 319th BS on a strike to Manokwari. A period of "hand-over" followed. The 380ths first "solo" operation was FEN29/3 Jun (three B-24s on a shipping strike to Lautem) and the 319ths last participation was as part of FEN42/23 Jun (they provided 3 aircraft for a strike on Manokwari by 17 B-24s) with the 380th operating on its own from FEN43/27 Jun (6 B-24s attacking Laha at night). And so, the 380th continued long-range operations as part of and under the operational control of the RAAF's NWA. One mission, on 21st December 1943, would have ordinarily passed without much notice except for an inflight message sent by the lead aircraft …

Fenton 40

The Orders, from Headquarters North Western Area, were for between 9 and 12 B-24s from the 380th BG, operating in company, to attack the village area of Amahai and the northern dispersal loop of the adjacent airfield. Take-off was to be at first light on 21st December. The previous mission to the area had reported 6 Japanese bombers parked along the northern dispersal loop. Alternative targets were the Japanese barracks area at Haroekoe or the airstrip at SELARU. The required bomb load was for 50% of the aeroplanes to carry 9 x 500-lb demolition bombs with instantaneous nose fuses, plus incendiaries; the other 50% were to carry the maximum number of 100-lb bombs (also with instantaneous nose fuses), plus incendiaries. Photos were required of all bombing runs.[11]

This is a transcript of the acknowledging Form Mauve:

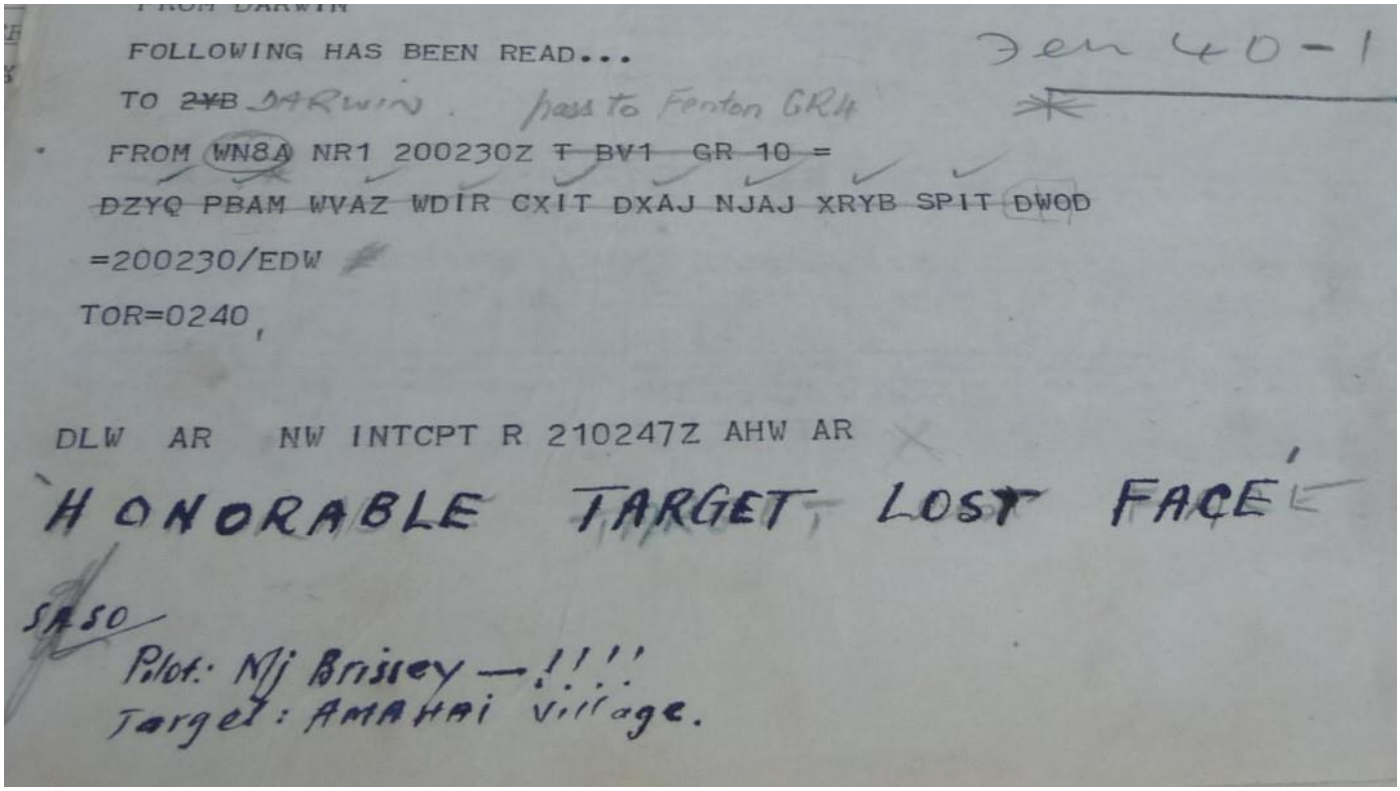
> (C) (1) STRIKE (2) 12M 201 MAJ BRISSEY 117 LT MAGEE 133 LT BAPTIST 248 LT PAUL 134 LT DEATON 126 LT BATES 114 CAPT CRAIG 942 LT CALHOUN 827 LT SHAFFER 167 LT BAKER 989 LT KEMP 935 LT HASTINGS (3) 1 TO 12 INCLUSIVE (4) 202030Z (5) FENTON TO (A) 0810S 12910E TO (B) 0320S 12930E TO (C) 0310S 12855E TO AMAHAI VILLAGE TO (A) 0810S 12910E TO (B) CAPE FOURCROY TO BASE (7) 5000 FEET WEATHER PERMITTING (10) 210730Z (G) COMMAND 4245 KCS PRIMARY 6975 KCS SECONDARY LIAISON 7420 KCS PRIMARY 6490 KCS SECONDARY (H) WN8A-B-C-D-E-F MP8A-B-C-D-E-F (R) WN8A-B-C-D-E-F MP8A-B-C-D-E-F (K) FEN/40 (L) 6 AIRCRAFT 9 X 500 DEMO NOSE INST TAIL .025 SECOND DELAY 6 AIRCRAFT 30 X 100 DEMO NOSE INST TAIL .025 SECOND DELAY DUTY NUMBERS 11 AND 12 PLUS 2 BOXES 4 LB INCENDIARIES. TOO 201145Z.[12]

No doubt most of you will be automatically reaching for ADF-Serials Telegraph Vol10, Iss4 and thumbing to pp99-110, wherein an account of various Coloured Signal Forms is contained as well as an explanation as to how to read them. But for those of you for whom that specific edition is just out of reach, here is a brief translation:

Paragraph "(C)(1)" is announcing what type of operation it is, sub-paragraph "(2)" is advising that it will be undertaken by 12 B-24s ("M" was the code letter for a B-24 – see also ADF-Serials Telegraph Vol10, Iss6, pp59 – 66 "*From Abernation to Zimmerman, An Introduction to Code Names*", especially pp62 & 63) with the following tail numbers and aircraft captains which are, 201 flown by Major Brissey, 117 flown by Lieutenant Magee, etc. Sub-para "(3)" is the duty numbers being 1 to 12 inclusive (so, tail number 201 flown by Major Brissey, is duty 1, tail number 117 flown by Lieutenant Magee is duty number 2, etc). Sub-para "(4)" is the wheels up time from base. Since there are 12 heavy aircraft departing at probably 60-second intervals, the departure time is the mean time. "202030Z" means 2030 hours Zulu (sorry – "ZEBRA" using the phonetic alphabet of the day) on the 20th which would have been 7am local (daylight savings) time on the 21st. Sub-paragraph "(5)" is the route; the "(A)", "(B)", etc are not individual paragraphs, they are the waypoints. Sub-paragraph "(7)" is the outbound "crossing-the-coast" height and "(10)" is the ETA back at base (6pm local). Paragraph "(G)" lists the frequencies in use. "Command" and "Liaison" was the American way of describing which radio was which – "Command" was the air-ground and "Liaison" the air-air set. Paragraph "(H)" lists the W/T call signs for each of the aircraft in duty number order. The first six aircraft were, in turn, "WN8A", "WN8B", "WN8C", etc and the last six were "MP8A", "MP8B", etc. This information was repeated, hence the "(R)" – which was not a paragraph, it simply meant "repeat". Paragraph "(K)" is the mission number, Fenton 40. Paragraph "(L)" is the bomb load and, finally, "TOO" means Time Of Origin of the message.

The lack of reported individual wheels-up times is unfortunate, but not unusual – in fact it is very common for this information (in signal form) not to survive. Aside from a notation that one of the aircraft returned to base with a fuel leak, the absence of any specific comments strongly suggests that (prior to the RTB) the two flights launched successfully and on-time from both Long and Fenton, joined up overhead Fenton and set course. As mentioned, one aircraft then returned (landing about 3 hours after departure), the crew changing over to the spare, but the subsequent take-off and landing times are missing. The fact that the nominated bomb load wasn't released over the target also suggests that, whilst the crew changed aircraft, it may have been assessed that they would not be able to make up the lost time and accordingly were scrubbed.[13]

About an hour after their time on target, the mission leader, Major Brissey, for some reason, saw fit to break radio silence and authorised the transmission of a message, the entire text of which read, "Honorable [sic] target lost face".



The message, with decryption, as received from Darwin. As can be seen by the pencilled notations, the message was addressed to callsign "2YB" which was Darwin, from callsign "WN8A" which, as you know from the Form Mauve, was FEN40 duty 1 (Major Brissey), "NR1 200230Z T BV1 GR 10" literally means: message No.1, TOO 200230Z relay to Fenton, group count should equal 10 (being a count of the cyphered quad-grams which contains the message – if there weren't 10, then the receiving operator knows there is a problem with the message). The notation at the bottom, for the attention of the SASO NWA (Senior Air Staff Officer), could almost have been a Colonel Klink-esk exclamation to his protagonist, Colonel Hogan ("Ho-gaaann!") – except it was 25 years or so too early. [*AWM file*].

The initial report back after landing was that all but 5 bombs were dropped in the target area and that fires (started by the bombing) were still visible 30 minutes after the aircraft left the target.[14]

A more detailed account was furnished in the Form Blue. In it, it was reported that the time of attack was from 0130Z to 0132Z with 45 x 500-lb bombs[15] and 180 x 100-lb demolition bombs, plus incendiaries, being dropped of which it was claimed that 44 x 500-lb and 175 x 100-lb bombs fell in the target area. The bombing course was from 173° to 180° with a release height of between 10,000 to 10,500 feet. Bombs were seen to hit in the target area and in the vicinity of the adjacent airstrip causing explosions with orange coloured fires and billowing black smoke. One of the 500-pounders and five of the 100-pound demolition bombs fell short into the water. Three Japanese single seat fighters (type unidentified) were seen flying at about 3000 feet over the target in a northerly direction but no intercept was attempted; these aircraft were observed, it was said, for approximately 15 minutes. There was no anti-aircraft fire observed and the B-24s gunners didn't fire a shot, either at the ground or at the relatively distant Japanese fighters. None of the B-24s was damaged and none of the crewmen injured. Crews reported the target area apparently demolished with fires and heavy black smoke visible for 50 miles.[16]

The target must have had some significance to Brissey, but exactly what isn't clear. Australian based B-24s hadn't been there before (indeed, I believe that this was the first ever attack against that target) and it seemed, at least on this occasion, to have been a relatively soft target. The approach to the target was well clear of Ambon (and the large airfield at Laha) as was the departure track. Perhaps they expected a hot reception and were overcome with excitement (relief?) when that turned out not to be. Still, it seems an extraordinary thing to break radio silence for.

According to pacificwrecks.org, Amahai didn't receive aerial attention again until July, 1944, although as a target, it became a focus of sustained operations during September and October, 1944, with 7 operations against it during each of those two months.

For those that are interested in knowing which aircraft were involved, here is a table containing the individual duties. The first column is the mission number (for clarity, it has been marked next to duty 1 only – obviously, all of these participating aircraft were "FEN40"), the next column is the duty numbers for the information in that row, columns three (squadron code letters) and four (individual aircraft identification letter) are blank because, like the 90th Bombardment Group, aircraft of the 380th Bomb Group did not carry, nor were they assigned, individual aircraft identification letters. The fifth column is the aircraft captains rank and surname, then the W/T call sign prefix (for clarity, only the first duty of each prefix is shown), then the suffix letter. The next column would have been for R/T call signs but none were quoted in the Form Mauve. The last column contains the nominated aircraft tail numbers and their departure base "LON" means "Long" and "FEN" means "Fenton". The reference for the information is in the first row at the top of the table.

FEN/MS1/21 Dec								*FEN/MS1/21 Dec*
FEN40	1			Maj Brissey	WN8	A		*201 LON*
	2			Lt Magee		B		*117 LON*
	3			Lt Baptist		C		*133 LON*
	4			Lt Paul		D		*248 LON*
	5			Lt Deaton		E		*134 LON*
	6			Lt Bates		F		*~~126~~ 121 {FEN/MS2/21 Dec}*
	7			Capt Craig	MP8	A		*114 FEN*
	8			Lt Calhoun		B		*942 FEN*
	9			Lt Shaffer		C		*827 FEN*
	10			Lt Baker		D		*167 FEN*
	11			Lt Kemp		E		*989 FEN*
	12			Lt Hastings		F		*935 FEN*

The aircraft tail numbers (when quoted) were usually given as the "last-three" or "last-four" of the serial number. These are the identities of the participating aircraft:

Duty	Abbr Serial	Full Serial	Model	Assigned Squadron	Remarks
FEN40/1	201	42-73201	B-24J-20-CO	531st BS	"*Tenn Squirrel Hunter*"
/2	117	42-41117	B-24D-135-CO	528th BS	(No Name)
/3	133	42-73133	B-24J-15-CO	531st BS	"*Sad Sack*"
/4	248	42-41248	B-24D-150-CO	531st BS	"*Bebe*"
/5	134	42-73134	B-24J-15-CO	531st BS	"*Milady*"
/6	126	42-73126	B-24J-15-CO	531st BS	"*Foil Proof Mary*"
Replacement	121	42-73121	B-24J-15-CO	531st BS	"*Royal Flush II*" / "*Pappy's Passion II*"
/7	114	42-73114	B-24J-10-CO	528th BS	"*Carrot Top*"
/8	942	42-72942	B-24D-170-CO	528th BS	"*Puss & Boots*"
/9	827	42-40827	B-24D-105-CO	530th BS	"*Old Hickory*"
/10	167	42-73167	B-24J-20-CO	528th BS	"*The Beautiful Beast*"
/11	989	42-63989	B-24D-20-CF	528th BS	"*Satan's Secretary*"
/12	935	42-40935	B-24D-115-CO	528th BS	"*Queer Dear*" / "*Queer Deer*"

The aircraft detail in the above table comes from comprehensive work presented by the 380th Bomb Group as Theodore J Williams and Barbara J Gotham's 380th Bombardment Group (We Went to War) Web Site and specifically the individual aircraft data sheets found in Part V.

One of the 11 B-24s from the 380th BG overhead Amahai during mission FENTON 40 on 21DEC43. The aircraft is tracking roughly south, so the tail is pointing (approximately) north. The proximity of the airfield to the village is obvious in this image. Large amounts of smoke and dust covers the central part of the village from the bay to the area just beyond the nearest dispersal loop (beneath and just in front of the aircrafts horizontal stabiliser). Some smaller clouds of dust and smoke are rising from the runway (in front of the aircraft's nose) – perhaps from 100-lb bomb strikes. I can count more than six splashes in the bay just short of the village, but then again, I'm not trained in imagery interpretation or bomb damage assessment. [*Image amahai-12-23-43-380bg2 via pacificwrecks.org*].

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https://pacificwrecks.com/airfields/indonesia/amahai/missions-amahai.html

Sabre Jet: The Final Years
5OTU, 2OCU, and Sabre Advisory Units

Gordon R Birkett @2021

A94-920 (76SQN) aloft, and tucking up in the early sixties with external ordnance. [*RAAF Official*].

Background

The RR Avon 26 powered CAC CAC-27 Sabre was based on the design of the North American F-86F Sabre, substantially modified, including the installation of a Roll Royce Avon R.A. 7 and later R.A.26 engine (Britain's first axial flow jet engine, designed and produced by Rolls-Royce) to meet local conditions and requirements.

The CAC-27 Sabre represented, at that time, the peak of participation by Australian industry in the design of a military aircraft since the end of World War II.

The Aircraft Research and Development Unit (ARDU) received the first example in August 1954; re-delivered to No. 2 (Fighter) Operational Conversion Unit (2 (F) OCU) in November of that year. Over the next six years the Sabres progressively equipped No. 75 Squadron RAAF, No. 3 Squadron RAAF, No. 77 Squadron RAAF and No. 76 Squadron RAAF.

Normal Squadron Unit Equipment centred around 18 x Sabres and 2 x Vampire Mk35/35As for each Squadron during the earlier years of 1956 to 1963 (Cited from No 76 (F) Sqn's A50; 1961). Thereafter, the Unit Equipment dropped down to 16 x Sabres, and for most periods thereon, seldom were the Unit Equipment numbers reflected or as shown in several Squadron A50 Histories as the true number of serviceable aircraft available on the flight line on any given day.

From a Unit establishment airframe prospective, the initial three Fighter Squadrons and an Operational Conversion Unit/ARDU aircraft numbers would require at least 75 aircraft.

Attrition by late 1962 had been 15 airframes, which would leave no spare aircraft available from the original contract of 90[17].

Fortunately, due to the delay of purchasing some 30 Interceptors (F-104) in 1957, a further order for 21 CAC Avon Sabre Mk32 aircraft had been placed, with the last of those delivered in late 1961.

To compound more the numbers required for frontline service, a fifth Fighter Squadron, No 79 Squadron, to be based at Ubon Thailand from 1962 to 1968, required a Unit Establishment of 8 x Sabres.

From 1958 to 1960, CAC Sabres of No. 78 Wing RAAF (78WG), comprising 3SQN and 77SQN, undertook several ground attack sorties against communist insurgents in the Federation of Malaya, during the Malayan Emergency.

Following the Emergency, they remained in Malaysia at RMAF Butterworth (RAAF Butterworth) armed with Sidewinder missiles from 1960; the Sabres were responsible for regional air defence during the Konfrontasi between Indonesia and Malaysia from 1963 until 1966, though no combat took place.

The RAAF began re-equipping its four fighter squadrons with the Dassault Mirage III from 1964. Just as well, as 1963 was a horror year with no less than 7 airframes lost or written off. But by then, the new fighter had been ordered, the Dassault Mirage IIIO, to be delivered from 1964 thereon.

In preparation of Mirage service and conversion for 2OCU and 75SQN, 23 x surplus CAC Sabre Mk 31s were withdrawn from frontline service and placed in storage prior to being eventually converted into components in the 1964-1967 timeline.

Alas further 7 airframes would be written off from 1964 onwards to their withdrawal from frontline service in 1969, making a total of 29 Sabre airframes lost by December 1968 in RAAF first line Service.

In 1962, a detachment of CAC Sabres, designated No. 79 Squadron RAAF, was sent from RMAF Butterworth to Ubon Royal Thai Air Force Base (RAAF Ubon), Thailand, to assist the Thai and Laotian governments in actions against communist insurgents.

With pilots rotating from 78 Wing, these aircraft were also normally rotated from those 38+ Sabres based on 78 Wing's Squadron Unit Establishments at Butterworth RAAF Base. Between October and December 1965, a detachment of six Sabres, initially from No. 77 Squadron RAAF and later from No. 3 Squadron RAAF, was based at Labuan to conduct combat patrols over the Indonesian–Malaysian border on Borneo.

No. 79 Squadron RAAF ceased operations and was deactivated in July 1968, with its aircraft merged with No 77 Squadron RAAF when those aircraft were returned to Butterworth. Last of the original four squadrons to fly the CAC Sabre, No 77 Squadron RAAF was returned to Australia to convert to the Dassault Mirage IIIO after its return to Australia in January 1969.

Normal history tells us that the RAAF operated the CA-27 Sabre from 1954 to 1971.

A94-954 in late 2OCU colours in early 1970 at Williamtown. [*Rod Farquhar via ADF-Serials.com.au*].

However, to recap, the CAC Sabre served in the following RAAF Units and periods up to 1973:

- ARDU September 1954 – April 1972
- Air Trials Unit (2 ATU)1956 - 1960
- Sabre Trials Flight/2OCU
    - February 1955 – March 1970
    - July 1971 - February 1973
- 75 Squadron RAAF April 1955 - August 1965
- 3 Squadron RAAF March 1956 - February 1967
- 77 Squadron RAAF November 1956 - January 1969
- 76 Squadron RAAF May 1961 - September 1966
- 79 Squadron RAAF May 1962 - July 1968
- Malaysian Sabre Advisory Unit 1969 – 1972
- 5OTU April 1970 – July 1971.
- Indonesian Sabre Advisory Unit 1972-1975

Thus, at the end of the CAC Sabre's frontline service in 1969 it continued its role as a transition trainer for budding Mirage Pilots in the RAAF, and eventually for selected Royal Malaysia Air Force CAC Sabre pilots for their No 11 Squadron (RMAF).

With that withdrawal all remaining CAC Sabres in frontline service by early 1969, they were now centred and in use or stored within 2 OCU and ARDU by mid-1969. No 2 OCU's normal Unit Equipment (actuals in brackets as of January 1969) by the late sixties was 28(22) x Sabres, 7(9) x A79 Vampires, 16 (23) x Mirages, 2 (2) x Winjeels and 2 (2) x UH-1Bs.

By late 1969, No 2 Operational Conversion Unit was administrated around four plus sub flying units:

- Mirage Squadron (Establishment of 19 Mirages)
- Instructional Squadron and Transition Squadron (Establishment of 28 Sabres and 9 Vampires)
- SAR Flight (Establishment of 2 UH-1Bs)
- and now, 4 Winjeels for Forward Air Control(FAC) training.

During early 1969, the Australian Government approved the donation of 10 late built CAC Avon Sabre Mk32s to the Royal Malaysian Air Force (RMAF) with pilot conversion having been undertaken by 2OCU. The aircraft were involved, A94-353, A94-354, A94-359, A94-362, A94-363, A94-364, A94-365, A94-367, A94-369, A94-371 and two "spare" aircraft, A94-357 and A94-361, that went as far as Darwin on the ferry flight. *Of note, A94-361 would eventually become a TNI-AU Aircraft, F8601, four years later, while A94-357 would be gifted to Malaysia on 23 November 1971, as a non-flying Instructional Airframe, Number 10.*

The Unit Establishment of 2OCU by the end of October 1969, which was normally 28 Sabre aircraft, swelled to 32 aircraft on hand. By December 1969, 2 OCU had only 21 CAC Sabre Aircraft on strength, following the departure of the 10 RMAF CAC Sabres.

Within the next month it would be back up to 27 aircraft as more stored aircraft were returned to service.
2 OCU was split on 1 April 1970 to form 5OTU:

- 2OCU (Mirages, Macchi MB-326H, Vampires and SAR Flight of 2 UH-1Bs)
- No 4 Forward Air Control Flight formed 01/04/70 ex 2OCU with 4 Winjeels a/c (A95-407/413/436/445)
- 5OTU (38 Sabres, 7 Macchi, and 7 Vampires), under command of Wg Cdr P G Larard DSO.

Conversion of RMAF CAC Sabre Pilots continued with 5OTU role into 1971, with the last of those, F/Lt Zainuddin Bin Che Din completing his conversion prior to his return to Malaysia on 24 June 1971.

On 30 July 1971, what was then publicly stated as the occasion of the retirement of the CAC Sabre from RAAF Service, three ARDU Sabres and their pilots, A94-960 (Wg Cdr R G Green), A94-942 (Sqn Ldr K J Doyle) and A94-969 (F/Lt R V Richardson) carried out a formation flight over Melbourne and the CAC Factory at Fisherman's Bend. *The latter CAC Sabre, A94-969, would go to the TNI-AU in 1973.*

A94-954 now pictured in 5OTU Colours. [*Temora Aviation Museum via ADF-Serials.com.au*].

F/Lt Zainuddin Bin Che Din RMAF is pictured in front of A94-972 of 5OTU June 1971. A94-972 went to the TNI-AU in 1973. [*NAA A9435 236 Page 29*].

With the disbandment of 5OTU, the CAC Sabre continued on the Unit establishment of 2OCU from July 1971 per authorised establishment of 27 airframes, with 11 on strength, with more stored on-site, with either 2OCU or with Base Squadron Williamtown.

A94-368 in 5OTU markings. [*Shane Batt via ADF-Serials.com.au*].

Following Cabinet Decision, No 683, 25 January 1972, the new Australian Labor Party Government approved the submission No 513 to a request from Indonesia for a supply of Sabre Aircraft, to coincide with a visit by the then President of Indonesia, President Suharto in early February 1972. This followed a RAAF Assessment of some 23 CAC Sabre aircraft stored at Williamtown following the curtailment of RAAF Sabre operations in July 1971. Six were reserved for the RMAF, leaving another 17 available set aside as a pool from which a possible gift to TNI-AU following a RAAF/Supply team visit to Indonesia in November 1971. Their recommendation was based on the higher technical ability of the TNI-AU compared to the RMAF in past, to absorb these aircraft in service due to their experience of similar MiG-17 and MiG-21 aircraft types in years past.

However, in the submission, the TNI-AU would probably accept lower standards for Sabre operations …but any shortfall from RAAF Standards would not be accepted by the RAAF from the standport of the safety of Australian pilots who would fly the aircraft in the course of their advisory duties.

As of April 1972, with a total of 28 Sabres on 2OCU strength, 18 were in use and a further 10 in store. By June 1972, with 15 in service, 3 in store, a further 9 were undergoing service at 481 Maintenance Squadron; with a further Sabre is missing from the line-up, assumed being A94-370 that was sent to 3AD.

The first party of TNI-AU Pilots arrived at Williamtown's 2OCU on 24 July 1972. The pilots were Major Tri Suharto, Major Angorro, Captain Soejitno, Lt Budihardjo, Lt Irawan Salem and Lt Sujamto.

At the time, the Sabre strength was numbered 12 aircraft, less than half the authorised establishment of 27 airframes. On 1 August 1972, they started their Pilot Course on the 11 available 2OCU Sabres.

On the 17 September 1972, a second TNI-AU Pilots course arrive, and they started their Sabre conversion on 9 October 1972 (one of those, Lt Sudjono, was suspended on 5 January 1973 from the course)

The RAAF Sabre Advisory Unit (Indonesia) was officially formed on 6 October 1972 at RAAF Williamtown under command of Sqn Ldr D A Robertson, and arrived at TNI-AU-AURI, Air Base Isawahyudi in Java on 16 October 1972.

From October 1972 3AD Preparation details (per *A50 History Sheets No 3 Aircraft Depot: Jul 67 - Nov 84*) (Indonesian Air Force Colours and deliveries) were as follows (Underscored those Sabre not on delivery ferry):[18]

- A94-968, A94-969, A94-352 and A94-971 completed in October 1972.
- A94-356, A94-955, A94-949, A94-368, A94-945, A94-988, A94-366 and A94-972 completed in Indonesian Air Force Markings in November 1972.
- A94-980, A94-963, A94-952, A94-957 and A94-975 completed by December 1972 with last two Sabres completed for Indonesia (for total of 19 aircraft painted by 3AD) being A94-361 and A94-990 in January 1973.
- Engines from A94-922 and A94-941 were removed as back up spares at 3AD for Indonesia.

Training continued with now 27 Sabres on strength at 2OCU in January 1973. By the end of that month, it had reduced to only 24 airframes. The first 8 CAC Sabres arrived on Indonesian territory was on 19 February 1973. RAAF and TNI-AU pilots were as follows: Wg Cdr K J Tuckwell, Sqn Ldr P J Hackett, F/Lt A P Ford DFC, F/Lt A A Page, and F/Lt N G Cameron, Major Tri Suharto, Major Angorro and Captain Soejitno.

The remaining TNI-AU Pilots had been ferried over the Timor Sea in a SAR RAAF P-3B Orion to Denpasar Bali prior on 16 February 1973. Three days later, 22 February 1973, another 7 CAC Sabres of the second delivery flight were delivered from Australia. RAAF and TNI-AU pilots were as follows: Wg Cdr K J Tuckwell, Sqn Ldr P J Hackett, F/Lt D J Riding DFC, F/Lt G L Bourman, F/Lt B A Wilson, Lt Irawan Saleh and Lt Soejanito.

A poor-quality photo showing the eleven participating TNI-AU Pilots in front of A94-968, prior to the ferrying of Sabres from Williamtown to Darwin. Pilots Left to right: Suyamto Anggoro, Iowan Saleh, Tri Soeharto, FX Suyitno, Boediardjo, Sementara berjongkok, Dari kiri ke kanan: Sulaiman Supriyatna, Sutejo, Holky Bk, Donan Sunanto. [*TNI-AU Historical via Pathfinder, Air Power Development Centre Bulletin: aircraft gifts to regional forces: Issue 168 November 2011*].

An eighth aircraft on this ferry flight, A94-352 (Pilot unknown), was damaged on take-off at Denpasar, Bali.

The Sabres were flown by No 14 Squadron, TNI-AU, until 1982 when their role was taken over by ex-USAF F-5Es, USN (actually ex Israeli AF) A-4Es and British BAC Hawks. All RAAF Pilots were returned to Williamtown by 25 February 1973 by air. 2OCU' Sabre Strength at the end of February 1973 was 24 aircraft, inclusive of the TNI-AU Sabres.

By the end of March 1973, there were nil on hand at 2OCU. It must be noted from the 3AD Records, which the serials quoted for the 19 earmarked for the TNI-AU, including one damaged on delivery at Bali in February 1973 (A94-352), which equals the figure, assuming a further 2 Air Spares held at Darwin/Williamtown were to ensure the delivery of 16.

One not listed in 3AD Paint Finish Records was A94-370, the air spare held at Darwin, which was delivered on the 23 February 1973 to Denpasar Bali by F/Lt N G Cameron, to complete the 16 aircraft gift.

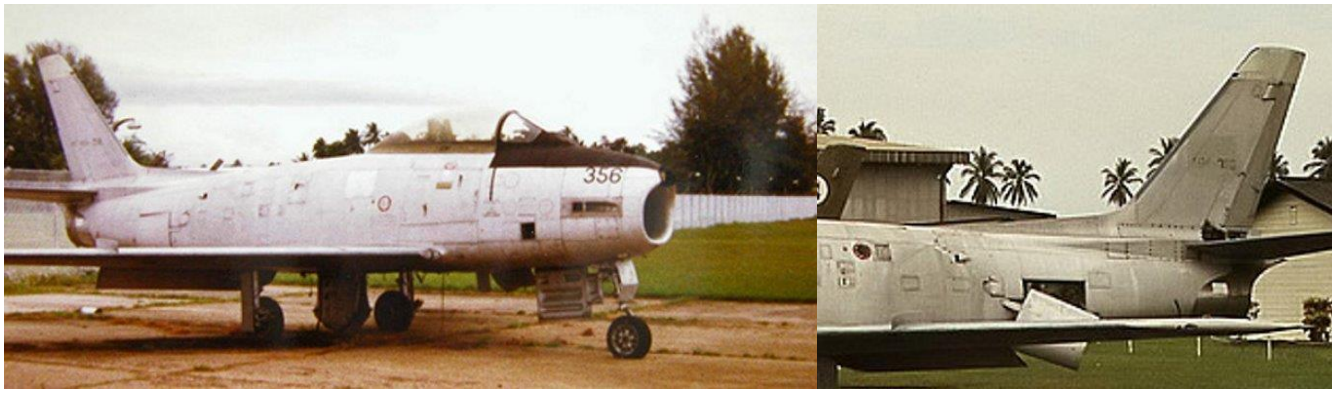
A94-370 pictured looking a little reduced in parts, early 1972 in storage at Williamtown after 5OTU Service. This was the first CAC Sabre to be reactivated and repainted in TNI-AU Colours. [*Kym Manuel via ADF-Serials.com.au*].

Of the remaining TNI-AU airframes, for a time they reverted to their RAAF markings and held in flyable storage until:

- A94-366, six months later, was sent to the TNI-AU in October 1973 and became later F-8602.
- A94-955, seven months later, was sent to the TNI-AU in November 1973 and became later F-8617.

- **A few years later in Java, A94-370 as marked as F-8618.** [*ADF-Serials.com.au*].

The remaining fourth air spare, A94-356, it would be returned to RAAF ownership and supplied later as an attrition replacement for the RMAF on 7 February 1974 as FM-1356 (Later FM-1996).



A94-356 following its transfer to the RMAF seems it may have been used as spares or Instructional Airframe only, as no national markings were applied over painted out TNI-AU pentagon. [*Left: ADF-Serials.com.au; Right: Wolodymir Nelowkin Airliners net*].

Though not on 2OCU's establishment, the last "official" RAAF CAC Sabre test flight was performed by 2OCU's Commanding Officer (Wg Cdr K J Tuckwell) in A94-352 on 5 April 1973. This aircraft, originally a TNI-AU destined aircraft, was damaged on its ferry flight to Indonesia at Bali following an aborted take-off due to engine issues.

It was returned to Australia, and as the Individual Record Card states, assigned to ARDU 17 March 1973. It would later become Instructional Airframe #18 at RADS. Sometime in 1975, it was sent to Malaysia.

Was that 1973 flight the last for A94-352? Hell no... She flies today!! [*Darren Crick ADF-Serials.com.au*].

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No.13 – RAAF Venturas

by John Bennett 2021

At the outbreak of the Second World War in the Pacific, the RAAF's strike force was predominantly the Lockheed Hudson with various models equipping seven squadrons, and the Consolidated Catalina with two squadrons in the long-range overwater role. Domestic production would focus on the Bristol Beaufort, which would replace the Hudson in bomber units from 1943. Also in 1943, Lend-Lease deliveries were made to Australia to equip RAAF squadrons with the B-34 and PV-1 Ventura variants, but ultimately it would only be 13SQN to fly the Ventura here on operations.

The Lockheed Model 37 / V-146 Ventura was designed for the RAF by the Lockheed Aircraft Corporation – developed from the Model 18 Lodestar commercial airliner – with production assigned by Lockheed to its Vega Airplane Company subsidiary. The Ventura was required by the RAF to replace the Hudson (itself a development of the Lockheed Model 14) and initially used as a bomber over continental Europe until progressively transferred to patrol duties. Venturas were manufactured by Lockheed's Vega factory at Burbank, California (only 2km from the parent Lockheed plant), which finally in 1943 became Lockheed Plant A-1.[19] With Japan entering the War, RAF production Ventura Mk.IIs were taken over by the USAAF on the line as the "Model 37", then followed by Lend-Lease production Ventura Mk.IIAs in 1942, which became the B-34 Lexington.

[from AHSA site]

The restored PV-1 Ventura 'A59-67 SF-F', now in RAAF Museum storage

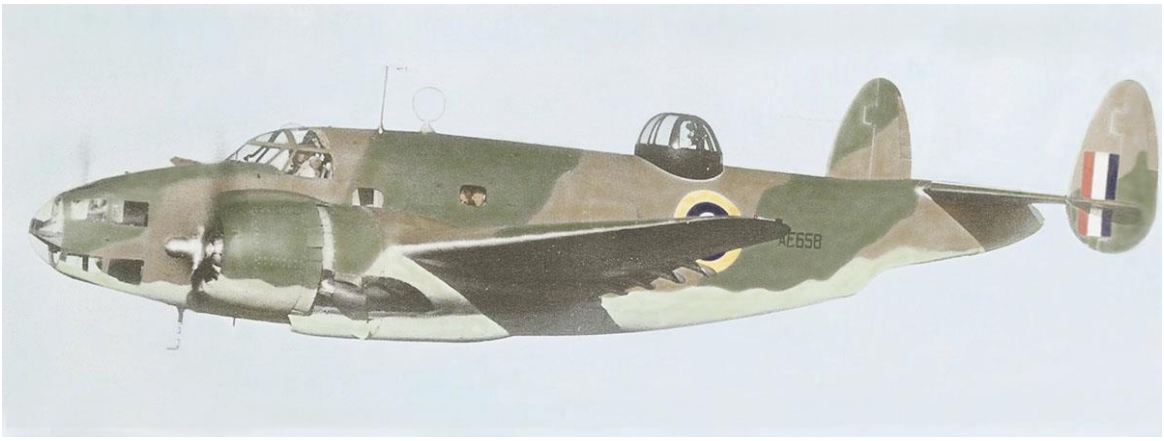
In Australia, the RAAF's first deliveries were the B-34 Ventura Mk.IIAs. These had been diverted from RAF contracts to USAAF training roles, where as the Lexington it was re-designated as the RB-34A (the 'R' prefix referring to a 'Restricted', non-combat role[20]). These first twenty for the RAAF, serialled **A59-1 to A59-20**, were delivered from MAY 1943 and were in such poor condition, having seen prior extensive USAAF service as crew trainers, that they were generally being withdrawn from service by MAY 1944.

The most successful variant of the Ventura was the US Navy PV-1. 55 new-build PV-1s were delivered over 1943/1944, serialled **A59-50 to A59-104**. In RAAF service, all were known as Venturas – in the RAF, early models were the Ventura Mk.I or Mk.II, with the introduction of Lend-Lease became the B-34A Mk.IIA, and the RAF referred to the ultimate PV-1 variant as the Mk.V, later GR.V.[21] This article will concentrate on RAAF Ventura use with 13SQN in North-Western Area (NWA) operating mainly from Gove NT. However, two RAAF Article XV units, 464SQN in UK with the Mk.I/II, and 459SQN with the Mk.V in the Mediterranean, also operated the Ventura in the bomber and patrol roles.

RAAF LEND-LEASE VENTURA DELIVERIES

Although the first RAAF operation of Venturas was by 464SQN in Europe from RAF orders, all those delivered to 459SQN in the Middle East and the RAAF in Australia were Lend-Lease deliveries. To Australia, these commenced in MAY 1943, comprising twenty **RB-34A Ventura Mk.IIA,** allocated in APR/MAY 1943 by **MAC Air Case 126**.[22] These were delivered concurrently with the first batch of 19 diverted USN **PV-1 Ventura Mk.V** under Lend-Lease **Case 200** 1943 Allocation, which were followed by a further 36 PV-1s in the 1944 Allocation, making a total of 55 PV-1s for the RAAF.

The first 675 Venturas were British Purchasing Commission (BPC) orders for the RAF, comprising 300 Mk.I and Mk.II, msn 137-4001 to 137-4300, serialled **AE658-AE957** – 188 as Mk.Is AE658-AE845, and the final 112 as Mk.IIs AE846-AE957. Of these, 16 were lost enroute before delivery, 42 were held in Canada, and 82 diverted to SAAF.[23] The next 375 were follow-on Ventura Mk.II msn 137-4301 to 137-4675 serialled **AJ163-AJ537.** Of these, AJ235-AJ442 were diverted to the USAAF, and AJ511-AJ537 to the USN; only 41 reached RAF units. [24]



[Colourised image from Pearcy, p.86]

The first RAF Ventura AE658, a BPC-contracted Mk I, maiden flight on 31 JUL 1941

By the time the Lend-Lease Act came into being on 11 MAR 1941, the BPC had already placed these substantial orders for much-needed US aircraft, to now be supplemented by Lend-Lease orders. Lend-Lease deliveries required USAAF designations and serial numbers as an indication they had been purchased with US funds.[25] Initially this involved a further 200 Ventura Mk.IIs msn 137-4676 to 137-4875, which were designated as the B-34 Ventura IIA and serialled **FD568-FD767,** with USAAF serials **41-38020 to 41-38219**. Of these, 20 were diverted to the RAAF and 23 to the RNZAF, but most were absorbed into USAAF training roles. Next was the long production run of 1600 PV-1 Venturas for the USN and Lend-Lease customers. While most of these remained with the USN, 387 were allocated to the RAF, but not all were received with diversions to the USN, RCAF and SAAF. The RAAF Lend-Lease deliveries are tabled below.

Lend-Lease Requisition	Variant	Delivery [26]	No. and US Serials	RAAF Details
41018 Contract DA-152 [27] **Case 126/Indent 927A**	**RB-34A**	MAY 1943 – AUG 1943	**1942 LL Allocation** **20** aircraft from batch 41-38051 to 41-38172	RAAF **A59-1 to A59-20**, msn 137-4707 to 137-4828; many hours flown in US,[28] fitted with ASV Mk.II (Aus).
N-517 Contract No A(S)198 **Case 200/Indent 2094AA**	**PV-1**	JUN 1943 – FEB 1944	**1943 LL Allocation** 23[29], but reduced to **19** in JAN 1944, Bu33316/48855	RAAF **A59-50 to A59-68**, msn between 237-5325 and 237-6091, fitted with ASD radar.
N-518 Contract No A(S)284		FEB 1944 – JUL 1944	**1944 LL Allocation** **36**[30], USN Bu48899/49556	RAAF **A59-69 to A59-104**, msn between 237-6135 and 237-6372.

Data plate 137-4506 for Ventura Mk.II AJ368 cJUL1942 *[Air Classics, MAR 2017]*

There is often discussion of whether to use an aircraft's individual identity 'c/n' or 'msn'. Both mean the same thing – c/n is 'constructor's number', msn is 'manufacturer's serial number' – which is the identity located on an aircraft's data plate. This never changes through the lifetime of the aircraft, even though an aircraft may change owners/operators, and change its external identity serial number (s/n) or registration. It basically comes down to what country the aircraft was manufactured in, and 'c/n' has typically been used for British aeroplanes, and 'msn' for airplanes from the US. In past articles in this series for Avro, Hawker and DH products, I have provided the term c/n. As the Ventura was a Lockheed product, the term msn is used. This is covered in good detail on Ron Cuskelly's site in a dissertation with the late Trevor Boughton: *The Lockheed File,* C/N v MSN - The Lockheed File (adastron.com)

Delivery of Case 126 Indent 2094A – 1942 LL Allocation of RAAF B-34s

This allocation of the first RAAF Venturas were for 20 Lend-Lease B-34As, with USAAF serials between 41-38051 and 41-38172. This list was attached to Washington Embassy letter to RAAFHQ of 21 MAR 1944, for Case 126 was now Indent No.2094A, having originally been Indent 927A. This advised the B-34 deliveries listed in sailing order, and the assigned RAAF serials **A59-1 to A59-20** were allocated on arrival in Australia.[31] So what this list shows is the delivery order, and RAAF serials have been inserted beside the relevant USAAF serial.

RAAF No.	SERIAL NO.	CV NO.	BLADING	SAILING	SIGNAL TO RAAF HQS	CONFIRMATION OF RECEIPT SIGNALS
A59-2	41-38054	100	LL1	362	WL 236 3/5	WX 181 23/7
A59-4	41-38060	100	LL1	362	WL 236 3/5	WX 181 23/7
A59-5	41-38067	100	LL1	362	WL 236 3/5	WX 181 23/7
A59-6	41-38079	100	LL1	362	WL 236 3/5	WX 181 23/7
A59-7	41-38085	100	LL1	362	WL 236 3/5	WX 181 23/7
A59-8	41-38086	100	LL1	362	WL 236 3/5	WX 181 23/7
A59-9	41-38108	100	LL1	362	WL 236 3/5	WX 181 23/7
A59-3	41-38059	100	LL1	362	WL 236 3/5	WX 181 23/7
A59-11	41-38057	97	LL1	391	WL 976 1/6	WX 908 2/7
A59-1	41-38051	100	LL1	362	WL 236 3/5	WX 181 23/7
A59-15	41-38066	97	LL1	391	WL 976 1/6	WX 908 2/7
A59-16	41-38069	97	LL1	391	WL 976 1/6	WX 908 2/7
A59-17	41-38091	97	LL1	391	WL 976 1/6	WX 908 2/7
A59-10	41-38121	100	LL1	362	WL 236 1/6	WX 181 23/7
A59-12	41-38062	97	LL1	391	WL 976 1/6	WX 908 2/7
A59-13	41-38064	97	LL1	391	WL 976 1/6	WX 908 2/7
A59-14	41-38065	97	LL1	391	WL 976 1/6	WX 908 2/7
A59-19	41-38130	163	LL1	670	WL 48 20/7	
A59-20	41-38172	163	LL1	670	WL 48 20/7	
A59-18	41-38125	163	LL1	670	WL 48 20/7	

[NAA A1695 7/205/EQ Pt.2 (171A p.3)

[Colourised from adf serials]

RB-34s storage at 2AD Richmond – the rear aircraft is A59-20 (nose number '172'/41-38172) still with USAAF fuselage star

Ten RB-34s were stored for disposal at Richmond.[32] The engine cowl art on the closer RB-34 shows a lady riding a bomb, colours are estimated.

Delivery of Case 200 Indent 2094A – 1943 LL Allocation of RAAF PV-1s

This allocation of the first RAAF Lend-Lease PV-1s had been for 23 aircraft in APR 1943, but in JAN 1944 was reduced to 19 aircraft,[33] with USN serials between Bu33316 and Bu48855. The RAAF Washington signal WL 66A dated 8 FEB 1944 advised these deliveries listed in order of USN Bu serials, which did not necessarily sequentially tie in with the RAAF serials **A59-50 to A59-68**, which were allocated on arrival in Australia at 2AD Richmond.

VENTURA (PV-1) CASE 200

U. S. SECRET
BRITISH SECRET

TOTAL 23

RAAF No.	U.S.N. SERIAL NUMBER	LEFT WEST COAST	AT HONOLULU	DEPARTED HONOLULU	SIGNAL TO RAAF HORS.	SIGNAL ACKNOWLEDGING RECEIPT
A59-50	May 33321		12.6.43	20.6.43	WL 546 26/6	(MN 854 28/6 (MN 899 1/7
A59-51	" 33316		12.6.43	23.6.43	WL 546 26/6	MN 899 1/7
A59-52	June 33444	3.7.43	14.7.43	16.7.43	(Naval Message	
A59-53	" 33446	3.7.43	14.7.43	16.7.43	(170015	
A59-55	July 34651	1.8.43	17.8.43	22.8.43		MN 653 26/8
A59-54	" 34652	1.8.43	17.8.43	20.8.43	(Naval Letter	
A59-56	Aug. 34754			14/9/43	(44-3/VV 27/8 (Refer WL 904 (29 Sept.	MN 680 28/8 MN 963 22/9
A59-57	" 34755		25.9.43	1.10.43	WL 30 4/10	
A59-58	Sept.34858	12.10.43	18.10.43	22.10.43	(WL 382Q 20/10	MN 393 26/10
A59-60	" 34859	12.10.43	18.10.43	20.10.43	(WL 503Q 23/10 WL 575 27/10	At Alameda 16/9 At Alameda 17/9
A59-59	" 34860	12.10.43	18.10.43	22.10.43	WL 503Q 23/10	(MN 393 26/10 (At Alameda 17/9
A59-61	Oct. 34992	2.12.43	9/12 app.	20/12	(WL 441Q 2/12	(Departure Signal
A59-62	" 34994	2.12.43	9/12	18/12	(WL 855A 21/12 (WL 441Q 2/12	(WL 855A 21 Dec. (Departure Signal
A59-63	" 34995	2.12.43	9/12	20/12	(WL 888A 22/12 (WL441Q 2/12	(WL 88A 22 Dec. (Departure Signal
A59-65	Nov. 48748	31.12.43	8.1.44	12.1.44	(WL 855A 2/12 WL 419Q 12/1	(WL 855A 21 Dec. MN 761Q - 10/2/44
A59-64	" 48749	31.12.43	11.1.44	11.1.44	WL 380A 11/1	MN 420Q - 15/1
A59-66	" 48750	31.12.43	8.1.44	12.1.44	WL 419Q 12/1	MN 761A - 10/2/44
A59-67	Dec. 48854	21.1.44	29.1.44	2.2.44	WL 951A 2/2	MN 761Q - 10/2/44 MN 813Q - 15/2/44
A59-68	" 48855	21.1.44	1.2.44	8.2.44	WL 66A 8/2	MN 813Q - 15/2/44

CASE COMPLETE

R.A.A.F. HEADQUARTERS ADVISED WL 66A 8/2

[NAA A1695 7/205/EQ Pt.2 (174C), via GRB]

There is mention in these files of Venturas ex-Burbank factory inducted into the **Alameda Modification Centre** prior to departing for packing depot in San Francisco. These dates show shipping ex-SF to Honolulu. RAAF then flew the Venturas to Richmond.[34]

VENTURA DEVELOPMENT

A British contract for the Lockheed Model 37 – a military version of the Lodestar – was placed in MAY 1940, its design incorporating all the experience gained with the earlier Hudson. AE658 was the first of a contract for 675, and first flew on 31JUL 1941.[35] This order came from the British Purchasing Commission (BPC) and Lend-Lease orders followed. The RAF had generally been satisfied with the Hudson, and as aircraft with greater capability were required urgently, the Lockheed development was seen as a quick ideal solution.

Deliveries for the RAF commenced over the first half of 1942 to equip light bomber squadrons - and because of the US's sudden dire situation, some were diverted via Reverse Lend-Lease to the USAAF as the B-34 Lexington, and to the USN as the PV-3 Ventura. (When supplied under Lend-Lease, the RAF Ventura Mk.II became the Mk.IIA, and had the US designator B-34 and USAAF serials; similarly the RAF Ventura GR.V had the US designator PV-1 and USN Bu serials.) British military aircraft of the period were given a name (often an American place name for US aircraft), to which a mark number was added in Roman numerals. From 1943, a role prefix was added to the mark number, such as 'GR' for General Reconnaissance for the Model 237 PV-1 Ventura, which became known as the GR.V.[36]

[Colour image from du Plessis Collection]

Lockheed production of Hudson Mk.Vs for the RAF APR 1941, at Floyd Bennett Field NY

AM665 was from the RAF BPC order for 390 Hudson Mk.Vs (AM520 to AM909).[37] The second half of the order was subsumed by Lend-Lease, and designated A-29.[38] Six were transferred to the RNZAF as NZ2001/NZ2006 and arrived at Hobsonville in MAY 1941. All are camouflaged in the RAF's *Temperate Land Scheme* A.D.1159 'A' scheme of *Dark Green (DG)* and *Dark Earth (DE),* as from **JAN 1941** the "mirroring" of A.D. patterns had been discontinued.

Before Lend-Lease, all of the US aircraft in RAF service had been paid for by Britain, with manufacturers following the contracted painting instructions of the customer, as close as possible to colours being applied to UK built aircraft. Lockheed had most probably sourced its paint and dope finishes from DuPont, as had Curtiss for P-40 production, but details relating to the Hudson remain elusive.[39] US paint manufacturers would match "equivalent" colours very closely to those prescribed by the Air Ministry MAP colour, and DB-7/A-20 historian Mark Harbour, records the two paint suppliers for the Boston – Fuller for Douglas production and DuPont for Boeing – had only slight colour differences, more noticeable when new, but almost indistinguishable as they faded.[40] The actual MAP colour samples were not available for reference at that time by US manufacturers, and probably Curtiss was not consistent in specification and batch control, so generally they were not *exact* matches.[41] When Lend-Lease was introduced, the US military paid for the aircraft – production for Commonwealth countries was from Requisition numbers and Contracts, aircraft received US military designations and serial numbers, and the US painting needs took precedence.

TOTAL VENTURA PRODUCTION

Below is a list of total Ventura production at Burbank over 1941-1944 compiled from several referenced sources.

msn	Serials	Number	Production Dates [1]	Details [2]
Model 37 VENTURA Mk.I				
37-4001 / 4188	AE658/AE845	188	AUG 1941/FEB 1942	15 to 464SQN RAAF UK.
15 aircraft lost prior to delivery.				
Model 137 VENTURA Mk.II				
137-4189 / 4300	AE846/AE957	112	FEB 1942/JUN 1942	15 to 464SQN RAAF UK.
137-4301 / 4675	AJ163/AJ537	375	MAY 1942/SEP 1942	15 to 464SQN RAAF. Last 27 to USN PV-3.
10 aircraft lost prior to delivery. **USAAF impressment.** USAAF took 264 as "Model 37", for training roles in aircrew navigation and gunnery instruction, some as target tugs. All had the British Boulton-Paul dorsal turrets removed; some were fitted with the US Martin turret, and AJ288 (msn 4426) was the first with the Martin250CE turret, delivered mid-1942. 27 to the USN as PV-3 Bu33925/Bu33951.				
Model 137 B-34 LEXINGTON (VENTURA Mk.IIA)				
137-4676 / 4875	41-38020/ 41-38219	200	SEP 1942/NOV 1942	20 RB-34A to RAAF as **A59-1/A59-20.**
Most **B-34s** were impressed as USAAF trainer sub-variants B-34A-1-VE, B-34A-2-VE, B-34A-3-VE, B-34A-4-VE and B-34B-1-VE. The designator **RB-34** was used from OCT 1942, the 'R' indicating "Restricted" for a. non-combat role. Future LL deliveries were for the USN production variant the PV-1.				
Model 137 O-56 / B-37 LEXINGTON (VENTURA Mk.III)				
137-1001 / 1018	41-37470/ 41-37487	18	JAN 1943/APR 1943	550 ordered as 41-37470 to 41-38019, but final 532 cancelled.
B-37 originally designated O-56 ("O" for observation), which was cancelled before delivery; also designated Model 137-96-03. As all retained by USAAF, RAF serials EW323/EW340 were not taken up.				
Model 237 PV-1 VENTURA Mk.V				
 *[Colourised from ww2bombers]* **Bu29767 just off the Burbank production line in early 1943, with msn 4920 visible**				
237-4876 / 5075	Bu29723/Bu29922	200	DEC 1942/MAR 1943	First flight 3 NOV 1942. All to USN, none to RAF or RAAF.
237-5076 / 5475	Bu33067/Bu33466	400	MAR 1943/JUL 1943	Some the RAF/RCAF with FN serials, and FP537/FP548. RAAF deliveries **A59-50 to A59-53** JUN/JUL 1943. USN blue/grey cam changed approx MAY 1943 at **Bu33400**.
237-5476 / 5887	Bu34586/Bu34997	412	JUL 1943/NOV 1943	Some RAF FP549/FP684; JS889/JS897. RAAF deliveries **A59-54 to A59-63** AUG/DEC 1943.
237-5888 / 6175	Bu48652/Bu48939	288	NOV 1943/FEB 1944	Some RAF JS898/JT838. RAAF deliveries **A59-64 to A59-73** JAN/FEB 1944.
237-6176 / 6475	Bu49360/Bu49659	300	FEB 1944/MAY 1944	Some RAF JT839/JT898. RAAF deliveries **A59-74 to A59-104** MAR/JUL 1944.
	Total PV-1 Production	**1600**	1600 made over 18 months equates to approx. average 90/month.	

Most production data comes from the excellent Ventura site *ww2bombers*; cross referenced to Joe Baugher's *US military serials* databases, Robertson's *British Military Aircraft Serials*, Andrade's *US Military Aircraft Designations and Serials*, and Pearcy's *Lend-Lease Aircraft*.

[1] **Production dates** are interpolated in some cases from known data points.

[2] **Article XV Squadrons:** RAAF 464SQN UK and 459SQN ME data taken from the *adf-serials* database.

[Image Lib of Congress LC-USE6-D-006034]

Lockheed Burbank production of Ventura Mk.Is for the RAF JUN 1941

This JUN 1941 image was after the introduction of the Lend-Lease Act of 11 MAR 1941, and before the maiden flight in JUL 1941.

The **Model 37 Ventura Mk.I** had two 1850hp Pratt & Whitney Double Wasp R-2800-S1A4-G radials. This production was for the first mid-1940 British Purchasing Commission (BPC) which order totalled 300 Venturas, which included 188 Mk.Is (**AE658 to AE845**, msns 37-4001 to 37-4188). All Mk.Is went to Commonwealth air forces – 80 were received by the RAF, 71 to South Africa and 21 to Canada. Others were lost before delivery.[42] First flight of AE658 was on 31 JUL 1941,[43] and first deliveries to Britain were in APR 1942, as the Ventura Mk.I equipped 2 Group's bombing wing at Feltwell, Norfolk, comprising 464SQN RAAF, 487SQN RNZAF and 21SQN RAF – 15 serving on 464SQN.[44]

[A Lockheed colourised image, ww2bombers]

The first RAF Ventura Mk.I AE658 maiden flight 31 JUL 1941, fitted with the British Boulton-Paul turret

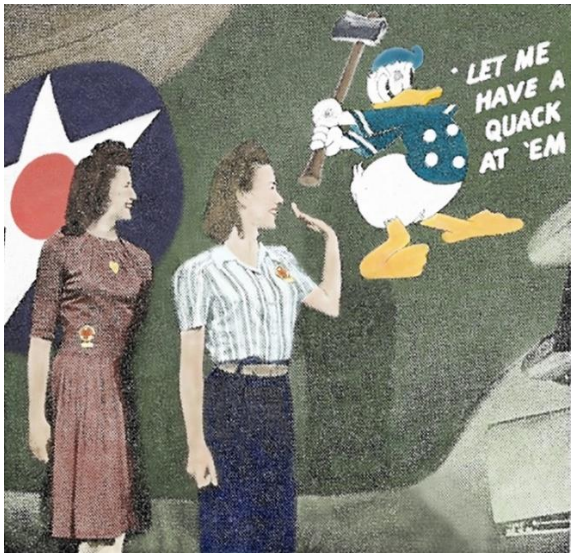
By JUL 1941, camouflage was the now standard A.D.1159 'A' scheme – "mirroring" had been discontinued in JAN 1941. Lockheed's colourisation of this maiden event incorrectly camouflaged the *DG* too bluish, *DE* with a yellowish-tint towards a tan, with all-over *DG* on the horizontal tailplane. The B-roundel on the upper wing has no *Red*, and *Red* on the A1 roundel is too large and bright.

Vega Airplane Company. By 1940, Lockheed was building the Hudson and the P-38 Lightning in its Burbank Plant B-1 and did not have the capacity to build the Ventura there, so decided to build the 'Model 37' in the Vega Airplane Company's Plant A-1 at the Union Air Terminal in Burbank. The Vega Airplane Company, formed in AUG 1937 as the AiRover Company, was renamed the Vega Airplane Company in 1938, as a wholly owned subsidiary of Lockheed, having been established to build light, general aviation aircraft. Vega was merged with Lockheed on 31 DEC 1941 and finally absorbed in NOV 1943.[45]

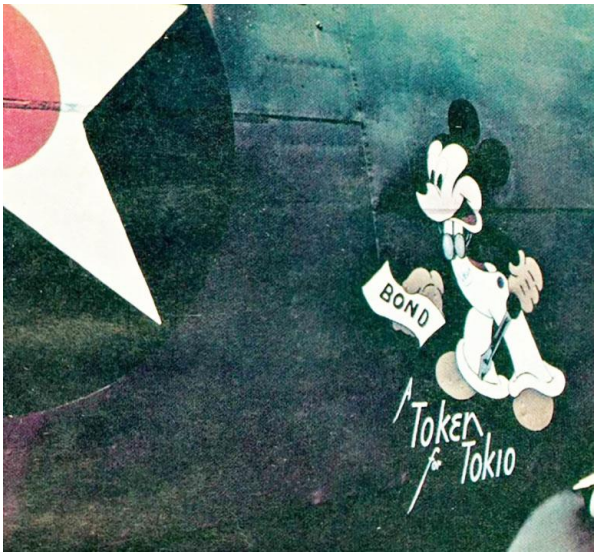
VENTURA Mk.II

The **Model 137 Ventura Mk.II** had 2000hp Pratt & Whitney Double Wasp R-2800-31 radials, with 112 built from the original 300 order (**AE846 to AE957**, msn 137-4189 to 137-4300). A further BPC order for 375 Mk.IIs (**AJ163 to AJ537**, msn 137-4301/137-4675) increased Mk.II production to 487 aircraft. In addition to the more powerful engines, the Mk.II had a larger bombbay. Most were repossessed by the USA – 264 to the USAAF as the 'Model 37' (AJ235-AJ442, see AJ288 and AJ354 below). However, many Mk.IIs went to Canada and South Africa and ten crashed before delivery – but enough Mk.IIs did reach Britain to re-equip 2 Group's Feltwell Wing, with 30 reaching 464SQN.[46]

These Mk.IIs requisitioned by the USAAF as 'Model 37s' in 1942 retained their RAF serials and the British *Temperate Land Scheme* (TLS) A.D.1159 scheme of *Dark Earth* and *Dark Green*. The PV-3 designator applied to the last 27 Ventura Mk.IIs from the BPC contract for AJ511 to AJ537 taken over by the USN from OCT 1942 as Bu33925 to Bu33951. As RAF Ventura Mk.IIs were repossessed by the USAAF in early 1942, RAF camouflage and serial numbers were retained. They received the contemporary US National Markings, which include the *Red* central disc in the *White* star in the *Blue* cockade. This *Red* disc was removed in MAY 1942 to avoid confusion with the red circular Japanese *Hinomaru*, however this removal did occur in the field several months earlier than MAY, in late MAR 1942.[47]



[Colourised from rcafno128sqn site]



[rcafno128sqn site colour image]

1942 Ventura Mk.II production – RAF camouflage, *Reverse Lend-Lease* requisition by USAAF

The Disney aircraft art on the Burbank was typically applied to the starboard fuselage side near the cockade. The initial Mickey Mouse and Donald Duck artwork was directed at Hitler and Nazis, probably the intent of ***"Let Me Have A Quack At 'Em"*.** Soon into 1942, the artwork became anti-Japanese, in this case ***"A Token for Tokio"*** for the selling of government War Bonds. The *Red* circle in the *White* star was discontinued by War Department Circular #141, 12 MAY 1942: "The *red* circle in the center [sic] of the insignia as used at present will be eliminated. The new insignia will therefore be a five-pointed, *white* star within a *blue* circle." [48]

This Donald Duck artwork was during RAF Ventura Mk.II production in 1942, but shows the repossession of these desperately needed bombers by the USAAF. This is obviously ***after*** the MAR 1941 LL Act, and ***during*** the requisitioning of Venturas for the USAAF in early 1942 after Japan had entered the War, but ***before*** the MAY 1942 elimination of *Red* disc in the US – therefore assessed as 1st or 2nd quarter of 1942. (Aircraft in the field had the small circle deleted from 28 MAR 1942.) So these are Ventura Mk.IIs repossessed by the US as 'Model 37s' prior to B-34 production starting cSEP 1942, but already marked with US markings on the production lines at Burbank.

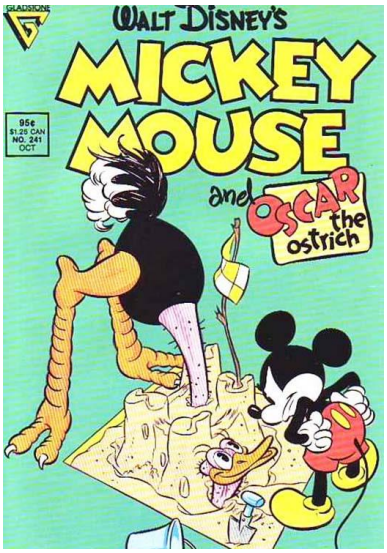
Later, in JUL 1943, as PV-1 deliveries were underway to the South Pacific, many RNZAF Venturas bore the Lockheed-Vega Disney studios cartoons on their rear fuselage sides. As most of these were now sharply anti-Japanese, they were ordered to be painted over before the aircraft headed to the operational area due to the fear that if downed, and the crew captured, these cartoons wouldn't help to enhance their treatment in enemy hands. Most of these painted over areas show as a large patch of fresh paint in photos taken at the time.[49] The RNZAF Venturas were delivered at the same time as the RAAF PV-1s, but not much of the Disney artwork survived on RAAF aircraft, there being only a couple of examples.

Matching RAF Colours. A problem at the US factories was trying to match local paints to the RAF specifications, where probably Du Pont was the main supplier. To try to match the British Ministry of Aircraft Production (MAP) colours, Du Pont used *Dark Green* (DuPont 71-013), *Dark Earth* (71-009), over *Sky Type S Gray* (71-021).[50]

VENTURA Mk.II DISNEY ARTWORK 1942

As RAF Ventura Mk.IIs were repossessed by the USAAF, RAF camouflage and serial numbers were retained but the US National Markings were applied, and later the RAF camouflage was replaced by the more usual *Olive Drab*. Early during this repossession of RAF aircraft was when Lockheed artist **George 'Randy' McGraw** began his artwork. With the Disney Studios located nearby, the Disney characters painted by McCraw were always mistaken for official Disney art. But he worked for Lockheed-Vega in Paint Shop Dept. 39 at Burbank, and had been assigned to paint the USAAF white stars, with inner red circle, on the fuselage of the new production Ventura aircraft. In early APR 1942, he selected a clean section of Ventura fuselage where he went to work on his first actual painting. His boss suggested he paint more of the drawings, and to assist with ideas, suggestion boxes were set up in various sections of the Vega plant. Three weeks later Randy had over 100 suggestions a day pouring in and his approved drawings became a full time job. To assist him, little remarks came with each artwork. For the many Walt Disney created characters painted, special permission was given to Randy and the Vega Company by Walt himself. Each of the Ventura paintings left the plant for parts unknown, which included USN, RAF, RAAF, RNZAF and RCAF.[51]

[Colourised from US National Archives No.196380, via ww2bombers]



[internet image]

RAF camouflaged Ventura Mk.II for the USAAF marked with Oscar the Ostrich MAY 1942

The caption to this image gives the name as "Rudi the Ostrich", which must have changed because Mickey Mouse comics called him "Oscar". Perhaps the forerunner of the Warner Bros "Roadrunner".

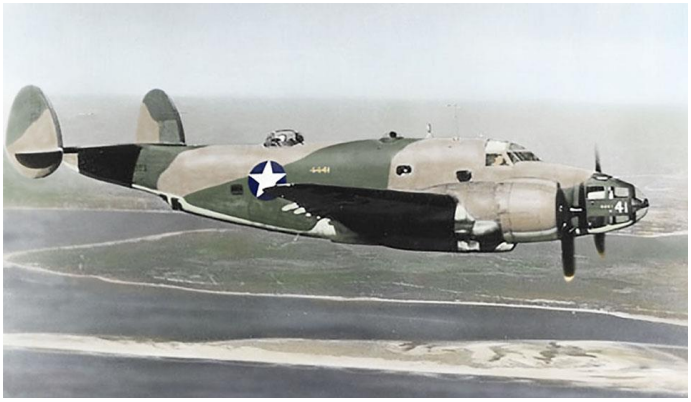
Mickey Mouse was a favourite. Oscar the Ostrich, above, became known as Mickey's ostrich. But the most popular Disney characters applied to the side fuselages of Venturas were Mickey Mouse and Donald Duck. While Mickey was somewhat subdued as a mild-mannered guy, Donald could always lose his temper and became more popular as an offensive type looking for a fight, which became particularly apparent when applied to Navy PV-1s.

[Both colourised from usaaf-nose art.co]

"*A Ventura Gosh!*" and "*Goodby [sic] Hitler!*" from RAF production, although possibly diverted from the Lend-Lease B-34 line

MODEL 37s – REPOSSESSED RAF VENTURA Mk.IIs 1942

As RAF Ventura Mk.IIs were repossessed by the USAAF, RAF camouflage and serial numbers were retained. The British Boulton-Paul dorsal turrets were not liked by the Americans and the US turret was adapted for Ventura use, but was not always required for the USAAF training roles undertaken by these 'Model 37s'. (It was not until the Lend-Lease contracts that the aircraft became the B-34 Lexington in the USAAF, and the Ventura Mk.IIA in the RAF.)



[Colourised from GRB Collection]

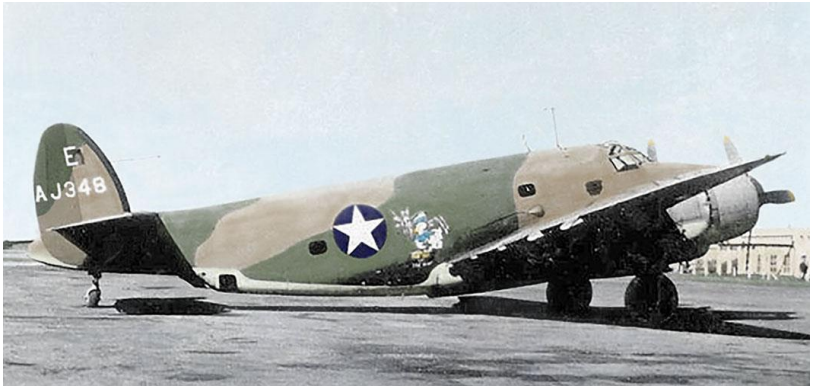
RAF Ventura II AJ303 msn 4441 "41", Martin 250CE-13 turret

Inner port fin flash appears overpainted. Msn in *Yellow* on fuselage and nose.

[Colourised from USAF Museum 060713-F-1234S-017]

AJ354 msn 4492 repossessed by USAAF in SEP 1942

AJ354 on tail in *White*, with "G" base code.



[Colourised from ww2bombers]

AJ348 msn 4486, no turret, 'E' base code for Eglin, Donald Duck artwork

[Colourised from GRB Collection]

Crashed Mk.II target-tower AJ396 msn 4534 FEB 1943

The above images of RAF Mk.II Venturas, that had been repossessed by the USAAF off the production line over JUL/AUG 1942, were re-marked with the new US National Marking at that time – the *White* star on the *Blue* circle.

[Colourised from ww2bombers]

[Colourised from ww2bombers]

Ventura Mk.II AJ288 msn 4426 requisitioned by USAAF, with the new US Martin turret

Hitler ranting and pulling his hair out – "***Yep! We're get'en in his hair***". While Hitler was the target on RAF marked aircraft in the early War years, with Japan's entry then this was switched to the Japanese, particularly with USN PV-1s.

The somewhat antiquated Boulton-Paul 0.303 turret was not favoured by the US, and the Martin C250CE-13 with .50-cals was introduced. This top turret was assessed as one of the best defensive installations of any Allied aircraft, being electrically controlled with a gyro-computing gunsight; ammunition capacity was 400 rounds per gun.[52]

RB-34-VE/LO LEXINGTON 1942

The introduction of Lend-lease from APR 1941 necessitated aircraft production allocated US military designators and US military serials – USAAF Fiscal Year (FY) number allocations, or USN Bureau of Aeronautics (Bu) serials. Following on the Lockheed/Vega production line at Burbank was the B-34 Lexington, basically the Ventura Mk.II with some American equipment and a new turret. The continuing RAF deliveries were known as the Ventura Mk.IIA, but of the production run of 200, **134 went to the USAAF with US markings** applied on the production line. Like the earlier BPC-ordered Mk.IIs, the B-34 was also known by Lockheed as the Model 137. The 200 B-34s produced (msn 137-4676 to 137-4875) were USAAF **41-38020 to 41-38219**, RAF serials **FD568 to FD767**, and delivered from Burbank over the 3rd and 4th quarters of 1942. B-34 production retained the RAF green/brown camouflage, but some were overpainted with *Dark Olive Drab/Neutral Gray* (OD/NG) USAAF camouflage, as seen below on 41-38206 (training number M-127).

Designators. The official designator was initially the B-34-VE (Lockheed-Vega's 'VE' manufacturer code for Burbank was still in use while these aircraft were on the line and being replaced by Lockheed's 'LO'), and with sub-types B-34A and B-34B allocated to aircraft repossessed for USAAF training, were the 'Lexington'. This name was not adopted by the RAF, which continued using Ventura with mark numbers for all variants. In American service, the B-34 was used little operationally on coastal patrols, being relegated to training roles and the designator became RB-34 in OCT 1942, the 'R' prefix indicating a 'Restricted', or non-combat role.[53] The B-34 sub-variant 'Blocks' were: **B-34A-VE** trainers for the USAAF, **B-34A-1** 43 to RCAF and 23 to RNZAF, **B-34A-2** 57 for bomber training**, B-34A-3** 28 for gunnery training, **B-34A-4** 16 as target tugs, **B-34B-1-VE** 13 navigation trainers; it appears the 20 B-34A-VE models came to the RAAF.[54] Many for the RCAF were used by 34OTU at Pennfield Ridge, New Brunswick, for EATS aircrew training and appeared to be the later production aircraft, but there were no specific serial batches matching the Block numbers.

The B-34-VE was powered by the same 2000hp Pratt & Whitney Double Wasp R-2800-31 radials with four 0.5-inch guns (two in the nose and two in the dorsal turret) and four 0.3-inch guns (two nose and two ventral) with a 3000-lb bombload. The most obvious external difference from earlier production was the Martin dorsal turret, which was also retrofitted to some earlier 'Model 37' (i.e. Ventura Mk.IIs) reclaimed from the RAF for USAAF gunnery training.

[Colour image from Archer p.86]

USAAF RB-34A 41-38206 coded M-127 of Midland Field, Texas, 1943, overpainted with *Olive Drab* and *Neutral Gray*

This aircraft was the 187th B-34, produced in late 1942 just before PV-1 production commenced. The 'M' fuselage base code indicated Midland Field, an RB-34 training base within the Central Flying Training Command.[55] In late 1943, this aircraft was transferred to the RCAF as FD754 (as did 41-38165, M-125, as FD713).[56] While Model 37s had typically retained RAF green/brown camouflage, some B-34s were overpainted with US *Dark Olive Drab 41/Neutral Gray 43,* as was B-37 production.

Lend-Lease. Following Pearl Harbor in DEC 1941, RAF Ventura Mk.IIs were repossessed by the USAAF during 1942 as was most of that year's production of the B-34. Under the APR 1941 Lend-Lease Act, all procurement had been through the Air Corps – USAAF after 20 JUN 1941 – using US designations and serials. Up until this stage, all aircraft were on a British direct purchase orders and flown with RAF (or RN) serial numbers, and so had received no USAAC serial.[57] With Lend-lease, even though a specific airframe was intended for Britain (being equipped to meet RAF requirements and to carry RAF markings and serial number), it now had a US designation and serial. With most 1942 production Venturas being repossessed for USAAF training, US markings were being applied on the line.

USAAF B-34 LEXINGTON TRAINERS 1942-1943

With the Japanese attack on Pearl Harbor in DEC 1941, the US forces had to ramp up its training and aircraft production exponentially. This accounted for much of the British orders for Ventura IIs and B-34 Ventura IIAs being repossessed for the USAAF training system.

Bombardier-Navigator Flying Training. The 'backseat crew' navigator aircrew training in the US was conducted in the southern and western fair-weather states, primarily Florida, Texas, New Mexico, Arizona, Nevada and California. The basic nav trainer flown was the Beech AT-11 Kansan (a version of the Beech 18), then with more advanced training on the Lockheed platforms, the AT-18 and A-28 Hudson, and RB-34 Lexington. These schools were primarily within the USAAF Western Flying Training Command and the Central FTC. Large bases that can be associated with the Lexington were Midland TX (with 'M' fuselage codes), while the A-28 variant of the Hudson was used by Mather CA (code 'T') and with AT-18s for navigation training.[58]

Gunnery Training. The "Flexible Gunnery" schools were similarly located in the good weather states, and bases identifiable with the Hudson and Lexington were Buckingham Field FL (coded 'FM' for Fort Myers), Las Vegas NV (coded 'Z') and Tyndall FL ('TY').[59] Other RB-34 images shows tail codes of 'E' for Eglin FL, and 'G' for Kingman AZ, but these may have been "hacks" and not necessarily designated school training equipment.

[Colourised from www.fuselagecodes]

AT-18 Hudson and RB-34 Ventura gunnery trainers, FM-coded at Buckingham Field, Florida

[Colourised from worldwarphotos.info]

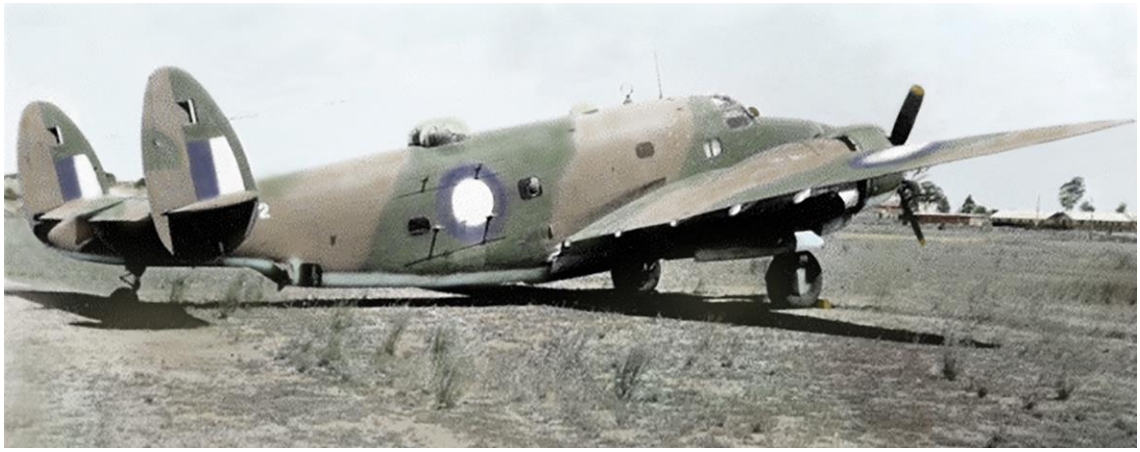
USAAF AT-18A Hudson 42-55505/T-108 navigation trainer without turret

RAAF USE OF THE RB-34 FROM 1943

Poor Condition of the RB-34s

When the twenty RAAF Venturas arrived, being ex-USAAF trainers, they were found to be in poor condition. Delivered under Lend-Lease Case 126, these aircraft were truly second-hand and 'pre-loved' – the documentation refers to this variant as the "RB-34".[60] The Air Board would complain to the US about the state of these aircraft, having been "never officially advised that the aircraft…were to be second-hand, it simply being stated that these aircraft were to come from USAAF stocks".[61] What had been assumed was that they were diverted from the USAAF Lend-Lease deliveries ex-factory. However, the hours flown by RB-34s prior to allotment to Australia showed some aircraft had flown up to 387 hours before handover in the US. On arrival at 1AD, these aircraft required "a grand total of 28,994 man hours work before they could be brought into use, this total representing maintenance only not including operational fitment or modification".[62] This represented an average of 1500 man hours per aircraft at 1AD before they could be made serviceable, and although there were similar problems with the A-31 Vengeances that were being received at the same time, the situation was even worse with the Venturas.[63]

USAAF serials of the RAAF **A59-1 to A59-20** were between **41-38051 and 41-38172**, i.e. spread out throughout this range, as the B-34 batch of 200 aircraft had been serialled 41-38020 to 41-38219.[64] These RAAF aircraft had been in USAAF service over JAN-JUN 1943, and "selected by the USAAF to provide those in best condition and most complete operationally", being flown from Dallas, Texas, to the US West Coast for shipping to Australia.[65] Similarly, the RNZAF experienced the same difficulties – the RNZAF's 23 RB-34s were received from JUN 1943, with some cannibalizing for parts being required to prepare nine aircraft to replace the Hudsons of 4SQN based at Nausori in Fiji. However, these early Venturas proved unsuitable operationally and the unit continued flying Hudsons well into 1944.[66]

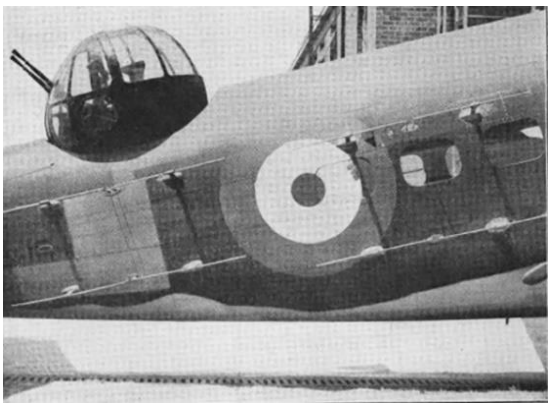


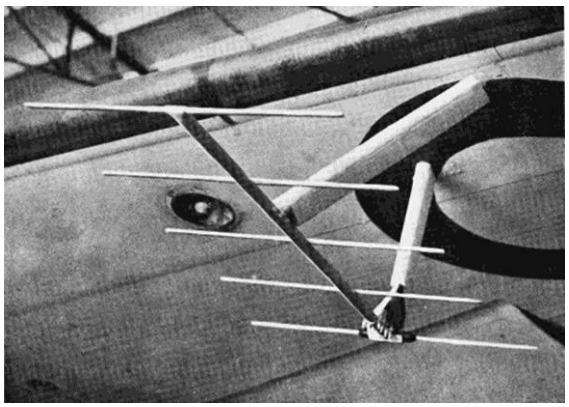
[Colourised from GRB Collection]

RB-34A A59-2 with ASV Mk.II radar fitted, apparently at Laverton

ASV (Radar) Trials OCT 1943

The ex-USAAF RB-34s had not been fitted with ASV – air-to-surface vessel, the early acronym for radar – and it was decided to install the Australian adaptation the British ASV Mk.II to selected RAAF GR aircraft types. These included the Anson, Hudson and Ventura, followed by the Beaufort. Installation was undertaken at 1AD Laverton, with trials conducted by the co-located 1APU. Details of ASV Mk.II (Aust) are in the RAAF Manual ACD 2005(2).[67]



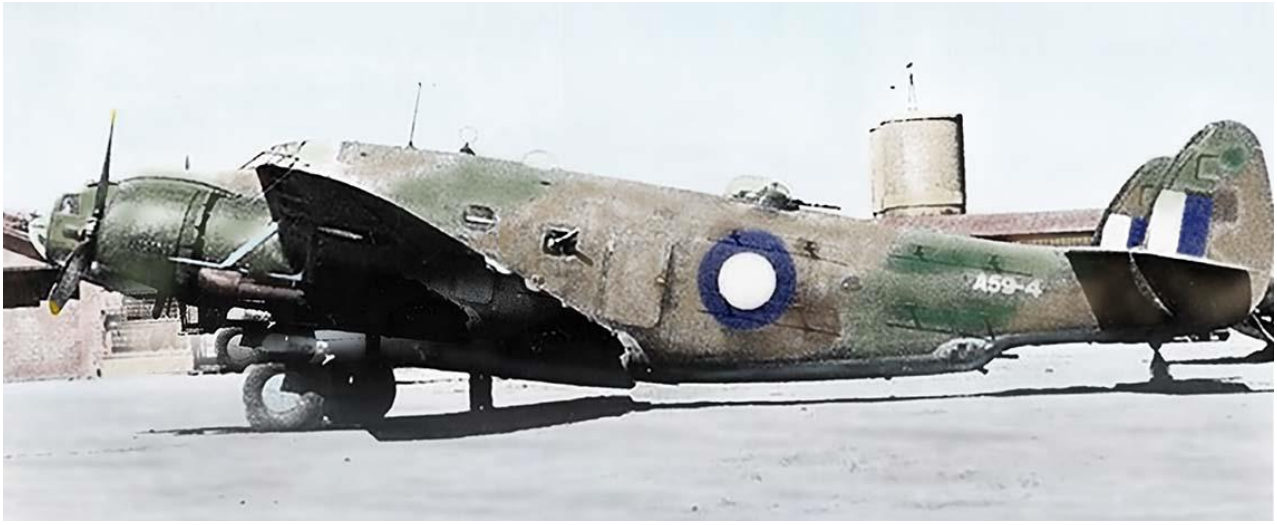


[both images from ACD 2005 (2)]

ASV search aerials on side of Hudson in 1942, and an ASV Yagi array under a Beaufort wing in 1944

RB-34A A59-4 1APU ASV TRIALS – OCT 1943

Anson radar development in the RAAF was addressed in our Anson article, No.5 in this series.[68] The first ASV was fitted to RAAF Anson DG701 by 1AD in JUL 1943,[69] and then fitted to RAAF Ansons from late 1943, with 5 Aircraft Depot (5AD) at Wagga opening a radar repair section in NOV 1943, and over the next months Ansons would undergo the radar modification.[70] Modifications by 5AD went to 71(R) and 73(R)SQN aircraft, and when those units ceased operations in mid-1944, aircraft were transferred to 67(R)SQN. 3CU in Sydney operated Anson EG417 over 1944-45 on behalf of the Radio Physics Laboratory,[71] presumably part of the CSIRO forerunner known as **CSIR**, for ASV development. The E/E.88 for A59-4 had it with **'SDF'** from OCT 1943 supporting the APU trials until MAY 1944. As of APR 1945, some 26 Ansons had been modified and were distributed among RAAF units.[72]



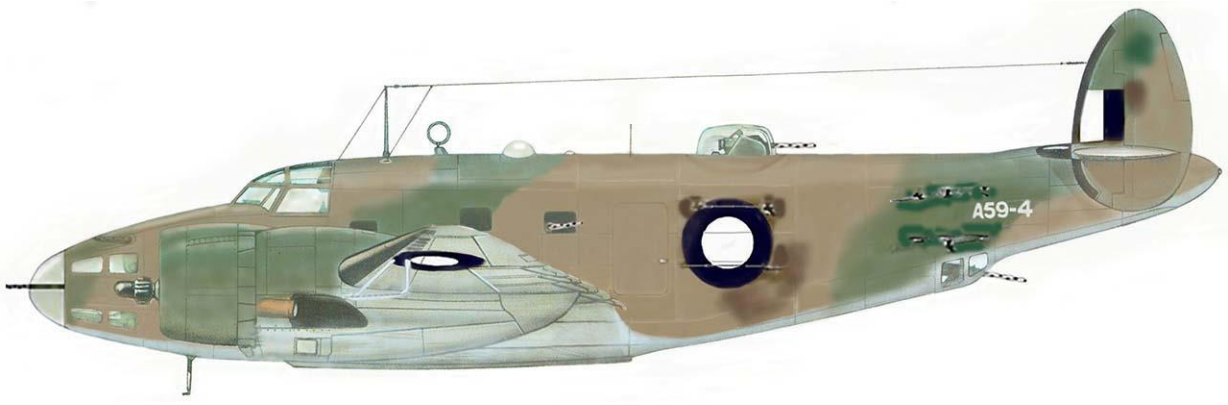
[Colourised from Britmodeller image]

A59-4 at Laverton OCT 1943

Delivered in MAY 1943 in standard RAF camouflage of *Dark Green* and *Dark Earth*, by OCT 1943 **A59-4** was looking a bit patchy. ASV antennas had been added and previous markings had been painted over by *Foliage Green* and *Earth Brown*, and *Sky Blue* added to the undersurfaces. The port beam gun is apparent through the aperture; for ASV trials the starboard gun was removed.

[Colourised from GRB Collection]

A59-4 at Laverton with 67SQN Anson DJ171 MK-D in the background



SQUADRON USE OF THE RB-34 1943-1944

2SQN. 2SQN conducted trials in the NWA operational area with RB-34 **A59-9** over NOV-DEC 1943. While some RB-34s were allotted to 2SQN over this period, these were all cancelled and diverted to 13SQN at Canberra. Because of the considerable prior use in the US, testing with A59-9 by 2SQN proved unsatisfactory.[73] It went unserviceable at Parafield on its return south on 27 DEC, but after this grounding was passed to 1OTU East Sale. It was joined by another, A59-15 in MAY 1944, and these were used for training until stored in 1946. As a result of the NWA trial, 2SQN received Beauforts, but continually pushed to get something more capable, like the B-25 with its firepower and range.

13SQN. Meanwhile 13SQN was working up in Canberra with a flight of 10 PV-1s and 9 RB-34s, receiving its first RB-34s on 28 DEC 1943, with the full allocation of nine by 31 JAN 1944.[74] However, by MAY 1944, the RB-34s had been grounded and during the month all were issued off 13SQN as "operationally unserviceable".[75] MAY 1944 was essentially the end of any hope for operational use of the RAAF RB-34: A59-17 was used for Test Pilot training from JUL 1944, and then by 1AD Ferry Flight from FEB 1945, when virtually all RB-34s were stored awaiting disposal.

[Colourised from QAM image, via Britmodeller]

13SQN A59-11 SF-J with ASV, 1944

There are no written records surviving linking 13SQN codes with airframe numbers, but under magnification this image reveals the serial as A**59-11** which was received at 2AD on 21 JUN 1943, and allotted on 21 JUL for ASV modification with 1AD SEP 1943 to FEB 1944. Then received at 13SQN Canberra on 22 FEB 1944 (being one of nine RB-34s for 13SQN to replace the 'B' FLT Beauforts from the end of DEC 1943). By this stage 'A' FLT had received ten PV-1s, but by 5 MAY all RB-34s had left 13SQN for 2AD, replaced by further PV-1s. A59-11 saw out its service on transport duties with 2AP Ferry Flight until NOV 1944.

7 SQN. In MAY 1944, RAAF Cd had considered force disposition with two squadrons of PV-1s, and 32SQN was selected as the second, as 13SQN deployed to Cooktown. But aerodrome extensions for 32SQN saw this decision changed to 7SQN at Higgins. However, there were insufficient Venturas to fully equip 7SQN, so only one flight would operate the PV-1 until more were available. Three were issued, but plans changed again when the US could not supply our 1945 Lend-Lease Ventura bids, and by 26 JUN the Venturas departed and re-equipment plans were cancelled.[76]

[Bell Vol.2, p.22]

USAAF B-34 with ASV with turret removed OCT 1942 – artwork reads *"Doolittle'll Domore"*

One of the few B-34s modified with ASV for operational anti-submarine patrols in the US. Dana Bell, in *Air Force Colors Vol.2,* assesses the colours to be *US Dark Olive Drab* overpainting of the RAF *Dark Green*, with *Dark Earth* and *Sky*.

RB-37-LO LEXINGTON 1942

The **B-37-LO** was a variant of the B-34 powered by two 1700hp Wright Cyclone R-2600-13 radials, with 550 ordered but only 18 were accepted (41-37470 to 41-37487, msn 137-1001 to 137-1018) and the remainder cancelled. The change of designator was necessary due to the new powerplant – just as had occurred with USAAF receipts of the Hudson: the A-28 had the Pratt & Whitney Twin Wasp R-1830-45 (RAAF Mk.IVA), the A-29 the Wright Cyclone R-1820 (RAAF Mk.IIIA).[77] In addition to the engines, the most noticeable external difference between the B-34 and B-37 was the two additional 0.30-calibre machine guns beam-mounted in recessed positions in the fuselage sides.[78]

The B-37 had originally been intended as the armed reconnaissance variant of the B-34, with the 'Observation' designation O-56-LO. But in OCT 1942, the designation was changed to RB-37 – like the RB-34, the 'R' designator prefix was used by the USAAF over 1942-47 for 'Restricted', referring to non-operational roles of trainer and target-tug.[79] Through its continually changing designators, the RB-37 has been referred to as the Lockheed Model 437, although the Model 137-96-03 designator appears more accurate, and the O-56, before becoming the RB-34B, then B-37 – the B-34 designator could not be retained as the change had been made to the Cyclone R-2600 engine – and ultimately in 1943 the RB-37, as it was realised there was no operational role for the aircraft. (Adding to the confusion, the RB-34B designation was reassigned to modified RB-34As for use as navigation trainers.)

[Colourised from USAF Museum 060713-F-1234S-025]

USAAF RB-37 Lexington '01' msn 137-1001 41-37470 in 1943 – USAAF colours *Dark Olive Drab* over *Neutral Gray* with decals

The fuselage National Marking is obviously a decal, and some US manufacturers would supply decals in the delivery crate to allow customers to mark up their aircraft – and the supply by Curtiss of P-40 markings during 1942 has been an issue discussed in other forums. In the US military, the USAAF Specification 98-24102-L *Insignia For Aircraft*, issued on 10 NOV 1942, stated that decalcomania transfers could be used if approved by the USAAF.[80] For the USN, the Army-Navy Aeronautical (ANA) Specification AN-1-9, *Insignia; National Star (For Airplane Exterior)*, dated 1 MAR 1943 (with an effective date of 1 SEP 1943), authorised in the USN the use of *decalcomanias* for the national aircraft insignia. These were available in gloss or specularity (matt) to match adjacent surfaces.[81]

First flight of the B-37 was on 21 SEP 1942, with the last of 18 delivered in APR 1943.[82] The main visual external difference of the B-37 from the B-34 was the beam gun position, with one each side. These had been built to a USAAF requirement and were painted in the contemporary camouflage – *Dark Olive Drab No.41* upper surfaces (FS 34087 is evidently close), and lower surfaces in *Neutral Gray No.43* (which FS 36173 is close).[83]

An Apology. It was over fifty years ago, in my young AHSA years, that I provided (together with Al Bovelt) our details of WWII RAAF aircraft for René Francillon's 1970 '*Aero Pictorials 3*' book, *The RAAF and RNZAF in the Pacific*. Unfortunately the details I did provide and that were published, stated the RAAF Venturas as **B-34s** (A59-1 to A59-20), **PV-1s** (A59-50 to A59-63), and **B-37s** (A59-64 to A59-104).[84] This was an error on my part, as there were no B-37s delivered to the RAAF, with only 18 ever produced. Under the Lend-Lease deliveries, this last mentioned batch of Venturas for the RAAF were, of course, PV-1s. There, I've come clean, my apologies.

US *"STARS"* AND NO BARS 1942

While Ventura production was underway at Burbank over 1942, there were changes occurring with the US National Marking, which would impact Model 37, B-34, B-37 and PV-1 production. Firstly in MAY 1942, the *Red* centre was removed from the star to avoid any confusion with the Japanese *hinomaru* circle marking. However, the danger of a *Red* circle was recognised on the front-line several months earlier, and was eliminated in the field from MAR 1942.

Until 28 MAY 1942	28 MAY 1942 – 29 JUN 1943	
Insignia Spec 241102K	**Insignia Spec 241102K #3**	
		

[historylink101.com colour image]

The elimination of *Red* from the cockade

The US Navy had recognised the need for clear identification – this was not only in 1942 with confusion of the *Red* centre dot, but prior to this, when the Atlantic prewar 'Neutrality Patrols' had ***two roundels*** marked on each side of the aircraft fuselage.

[colour image from historylink101.com]

USN PV-1 Ventura still with dual Neutrality Patrol roundels which were retained until late 1943

Neutrality Patrols

Although the US was officially neutral until 7 DEC 1941, the US Navy really entered World War II on 5 SEP 1939 when the US initiated **Neutrality Patrol** operations in the Caribbean and in waters 200 miles off the coasts of North and South America looking for German raiders and submarines. The information considered here comes from a 1991 US Naval Academy paper entitled *"The USN and the Neutrality Patrol, and Atlantic Fleet"*.[85] US President Roosevelt had been considering patrolling operations for several months prior to the start of war in Europe – for instance, on 20 APR 1939 he had told Cabinet that he wished to establish "a patrol from Newfoundland down to South America and if some submarines are laying there and try to interrupt an American flag and our Navy sinks them it's just too bad." He did not clarify whether this was to uphold *American neutrality* or *assist the Anglo-French alliance*.

With War, from MAR 1941 there was increased Anglo-American collaboration, the US Atlantic Fleet patrols became more aggressive doubling in size, the Lend-Lease Bill of 11 MAR 1941 provided new means of assisting the British, by APR 1941 USN ships were locating and broadcasting positions of Axis ships in Neutrality Zone to the British – there was *little public pretence of any hint of neutrality*, even by the White House. In these "short-of-war" months prior to Pearl Harbor, the USN trained the RCN in escorting convoys, and developed its radar, sonar and ASW doctrine while Britain shared its code-breaking Enigma 'Special Intelligence'.

In SEP 1941, Roosevelt modified previous convoy escort instructions and authorised US warships to escort convoys in which there were no US-flagged vessels. There has always been conjecture that the US knew of the impending attack on Pearl Harbor, and let it happen so the US could be dragged into war in the face of the home non-interventionalists. Pearl Harbor certainly took the weight off Churchill – at last the US "dropped its *figleaf of neutrality*".

US *"STARS-AND-BARS"* 1943

A US study in 1943 discovered that the *Red* dot being removed in 1942 hadn't been the issue – as the ***colour*** couldn't be determined from a distance anyway, however the ***shape*** of a marking could be. From trials with several variations including an oblong roundel with two stars, the study recommended using *White* bars flanking the sides of the existing roundel, all with a *Red* outline, becoming official in JUN 1943.[86] So when 'bars' were added to the star, it was strange that ***Red*** was selected, but then probably in reaction to complaints from the Pacific theatre, in AUG 1943 the ***Blue*** bars were introduced in AUG 1943 [87] – the *Red* bars only lasted a little over a month.

29 JUN 1943 – 14 AUG 1943	From 14 AUG 1943
AN-1-9a	AN-1-9b
	

[Colour image, US Nat Archives No.80-G-K-8133]

[www.norpacwar]

The shortlived *Red* bars makes it helpful for the dating of images

The images are of US Navy PV-1s on Adak in the Aleutians in JUL 1943. All aircraft shown are in the old USN *'blue/gray'* PV-1 camouflage, which was changed on the Burbank line in about MAY 1943 to the newer 'four-shade' camouflage. Left is USN bomber squadron VB-135 side number '7' (for '7V') with *Red* outline and still the double Neutrality fuselage roundels. Right, is the similarly marked VB-136 '9V' Bu29803 loading bombs. With USN squadron procedure, side numbers were re-allocated after an aircraft loss, and when Bu29847 (the previous '9V') disappeared on an operational search in MAY 1943, its '9V' replacement was Bu29803.[88]

[Colour image from ww2bombers]

PV-1 ready for delivery: later 4-colour scheme adopted in the 2nd quarter 1943, and with bars from 14 AUG 1943

For the USN PV-1 Ventura, the roundel diameter was 40", the bars were each 20" long and 10" high, with a 2.5" *Blue* surround.[89]

PV-1 VENTURA PRODUCTION 1943

In JUL 1942, the US Navy completed an agreement with the USAAF to acquire the Ventura as land-based patrol aircraft to supplement the PBY Catalina.[90] Production of the Navy's PV-1s commenced immediately with the first batch of 200 Lockheed 'Model 237s' (Bu29723/Bu29922, msn 237-4876 to 237-5075). The 'PV-1' designator was the typical USN convoluted mix of letters and numbers (which was changed to a more logical and joint-service system in 1962) – 'P' referred to a Patrol aircraft, 'V' as the first Vega patrol design, and '1' as the first sub-type. PV-2 applied to the redesigned model with larger wing and fin area, the Harpoon. The PV-3 was 27 Lend-Lease Ventura Mk.IIs AJ511/AJ537 requisitioned by the USN as Bu33925/Bu33951[91], which served on Atlantic patrols from OCT 1942 Of course the subsequent patrol production from Burbank were the P2V Neptune and P3V Orion – later redesignated in 1962 as the P-2 and P-3 respectively.

The first PV-1 Ventura (Lockheed Model 237-27-01) patrol bomber, powered by the same P&W R-2800-31 "Double Wasps" (i.e. Twin Row Wasps), flew on 3 NOV 1942 and Burbank deliveries commenced from DEC 1942 for the USN – production of the PV-1 extended until MAY 1944.[92] PV-1 modifications consisted of replacing some USAAF equipment with Navy equipment; increasing the fuel capacity by 20 percent; standardising the armament to two fixed forward-firing 50-caliber (12.7 mm) machine guns in the upper decking of the nose, two 50-caliber machine guns in the Martin dorsal turret, and two flexible 30-caliber (7.62 mm) machine guns in the ventral tunnel position; and modifying the bomb bay for 3,000LB (1,361 kg) of bombs, or six 325LB (147 kg) depth charges or a torpedo. While the clear nose cone was replaced by the ASD-1 search radar in a solid plexiglass nose cap, these initial PV-1s retained the side window glazing in the nose and the flat bombardiers window in the floor.[93]

[Colourised from Sqn/Signal No.48, p.9]

Early USN PV-1 Bu29767 (rudder msn '20' for 4920) at the Los Angeles Burbank factory, JAN/FEB 1943

The Lockheed-Vega factory, manufacturer of the Ventura, was adjacent to the Disney Burbank studios, and many of the aircraft carried Disney cartoon character fuselage artwork. Here it is Donald Duck as a jack-in-the-box, labelled *"Surprise!".* The first 200 PV-1s were serialled Bu29723 to Bu29922 (msn 237-4876 to 237-5075), and this PV-1 was the 45th, msn 4920, which was Bu29767. Markings are the early PV-1 scheme of USN *Blue Gray* over *Light Gray*, and a common trait of the 'last two' of the msn in *Yellow* on the rudder. This is carrying the standard underwing, pylon-mounted 165-gallon drop tanks.[94]

The above image shows the early production PV-1 with nose glazing of four windows per side for the bombardier station behind the nose radome, inherited from the British Venturas. With the glazed "greenhouse" nose, a rudimentary folding co-pilot seat had been fitted to allow the access to the nose compartment. The solid nose of the PV-1, while containing the radar, also had sighting aids for aerial cameras operation. However, on late production PV-1s, the bombardier position was replaced by three 0.50" machine guns, and these aircraft could also carry eight 5" HVAR (high-velocity aerial rockets) under the wings.

While an advantage of the Ventura had been its high speed, the 'hot' Ventura came as something of a shock to pilots accustomed to the docile Hudson, causing a number of training accidents.[95] Training of course prepared aircraft and crews for operations – with the PV-1, the first US Navy squadrons were in the North Pacific, with bomber units VB-135 and VB-136 deployed in the Aleutians from APR 1943.

VENTURA AT WAR

While the earlier RAF Ventura Mk.IIs and B-34s were repossessed by the USAAF in 1942, they retained RAF *green/earth* camouflage and serial numbers. However, PV-1 production from late 1942 was initially only for the USN – the first production batch of 200 had not been available for Lend-Lease customers being all desperately required by the USN – and the naval *bluish* camouflage and Bureau (Bu) numbers would then be standard for all future Ventura production. This early ***'blue-gray'*** camouflage marked the first batch of 200 PV-1s, followed by approximately 200 of the second batch, with colours changing during production to the ***4-shade 'non-specular'*** in about APR 1943 – and this appears to have occurred around aircraft Bu33400**.**

So the USN camouflage scheme was the standard for when foreign deliveries of the PV-1 commenced from about MAY 1943. So no matter what colour you wanted your Ford it would be black, or in the case of the Ventura, it would be blue. This involved delivery or assembly in the Lend-Lease customer's country and repainted as required for its operating theatre. In Britain, Venturas would be inducted into an RAF Maintenance Unit and normally receive the RAF *greenish/grey Temperate Sea Scheme (TSS)* camouflage – below is a great example, **FN957** after UK assembly and before receiving its *TSS* for operations in the Middle East with **459SQN RAAF**.

[Colourised from IWM12209F, via ww2bombers]

Early RAF PV-1 Ventura GR.V FN957 (ex Bu33081 msn 5090) in MAY 1943 at Speke, Liverpool, with Donald Duck artwork
The RAF type C1 markings were probably applied at the Lockheed reassembly plant at Speke on delivery, this was the 15th PV-1 of the second production batch of 400 aircraft.

Europe. In its intended role as an RAF bomber, the first unit – 140 Wing at Feltwell, Norfolk, comprising 21SQN RAF, 487SQN RNZAF and 464SQN RAAF – entered combat on 3 NOV 1942 with 21SQN attacking railway targets near Hengelo, the Netherlands. On 6 DEC 1942 the Wing provided 47 Venturas for a low-level daylight raid on the Philips radio and valve factory at Eindhoven, which was considered a success, although nine of the Venturas were lost and 37 damaged, leaving only one aircraft unscathed. After this the aircraft switched to medium level operations. But the Ventura in this role had entered service too late – it was already heading towards obsolescence, as in MAY 1942 the Mosquito B.Mk IV had entered service and re-equipped 140 WG in mid-1943.[96]

Middle East. The later PV-1 variant, known in the RAF as the Ventura GR.V, was used for anti-submarine operations over the Mediterranean, and as a naval patrol aircraft the Ventura proved a success. 459SQN RAAF Venturas were employed in this theatre from DEC 1943. The PV-1 used the same engines as the Ventura II, but had room for 1,607 US gallons of fuel (an increase of 263 gallons over the B-34/Ventura II) and was armed with 0.50" machine guns (two fixed forward guns, two in the dorsal turret, plus two 0.303" in the ventral tunnel position), while the bomb bay was modified to allow carriage of six 325LB depth charges or one torpedo. However, 459SQN would soon swap its Venturas in JUL 1944 for the Baltimore, serving alongside the similarly-equipped 454SQN.

Atlantic. The USN **PV-3s** (the last 27 Ventura Mk.IIs from the BPC contract taken over in OCT 1942) served on Atlantic patrols from late 1942, mainly with VP-82 and VP-93 from Argentia NAS in Newfoundland. In MAR 1943, when equipped with the PV-1, VP-82 became VB-125 and VP-93 became VB-126.[97] The external difference of the PV-3 had been its lack of dorsal turret, while production PV-1s from DEC 1942 had the Martin turret.

North Pacific. The *first deployment of Venturas to the Pacific* was to the bleak, fog-shrouded Aleutian Islands. USN bomber squadron VB-135 deployed north in APR 1943 arriving at Adak, midway along the Aleutian chain, to conduct patrols and photo reconnaissance. The high-speed PV-1 was capable of outrunning and sometimes shooting down enemy fighters.[98] Soon the sister squadron VB-136 reached Adak, and VB-135 redeployed to Amchitka, 185 miles further west. The unopposed invasion of Attu had enabled US Army engineers to construct the airstrip, from which PV-1s operated from AUG 1943 – the airstrip was described as "a fog with an island in the middle".[99] Operating from Attu enabled bombing attacks on the Japanese Kuriles (1,500 mile round trip, all over open water), and this became the main role of the Attu-based PV-1s. An innovation was to sometimes task PV-1s as radar bombing pathfinders for attacks by B-24s and B-25s against the Kuriles. One further hazard for the USN crews was that if a diversion became necessary at the western extremities of their missions, they faced internment by the Soviets, who had remained strictly neutral in the fighting with Japan.[100] The crews' treatment as virtual POWs by the Russians was harrowing, and these personnel eventually returned via Europe. The Aleutian weather however constituted a much greater threat than the Japanese, and the PV-1 squadrons lost more men and aircraft to the weather than to the enemy.[101]

[Colourised from Squadron Signal p.27]

NORTH Aleutian-based PV-1s of VB-136 'X5' Bu29768, 'X4' and '18', from Adak cMAY 1943

South Pacific. The first PV-1s to the South Pacific were VB-137 in Samoa in MAY 1943, and by OCT 1943, the USMC deployed Ventura night fighters to Henderson Field in the Solomons, then on to Bougainville. The radar-equipped PV-1 possessed the speed, manouevrability and firepower, and soon Marine Squadron VMF(N)-531 scored its first skill in NOV 1943 – when relieved in JUN 1944, the unit had twelve confirmed night kills as pioneers in a complex new form of warfare; this adaptability of the Ventura showed it in a role that its designers had never contemplated.[102] By OCT 1944 US forces were advancing towards the Philippines, and PV-1s were soon established in New Guinea, at Los Negros (in the Admiralties), and then to the NEI at Morotai (in the Halmaheras). By MAR 1945, PV-1s were based at Clark Field (on Luzon), and were ranging out against Japanese shipping. These Philippine and Mototai-based USN Venturas then supported the Australian-led *OBOE* operation over MAY/JUL 1945 to secure Borneo.[103]

[HowdiColourImage]

SOUTH USN PV-1 on Espiritu Santo, Vanuatu, in 1944

464 SQUADRON

On 1 SEP 1942, 464 Squadron was formed at Feltwell, Norfolk, as a light bomber squadron, within 2 Group **Bomber Command**, equipped with both Ventura Mk.Is and Mk.IIs. The first raid that the unit took part in set the scene for the high quality performances which were to become the norm for 464 throughout the War. On 6 DEC 1942, fourteen Australian Venturas combined with other aircraft of **140 Wing** from 487SQN RNZAF and 21SQN RAF to attack on the Philips Radio Works at Eindhoven, Holland. This was a daylight, low-level raid in the face of accurate flak with high losses, but with the operation considered a success. While operating the Ventura from Norfolk RAF bases at Feltwell and from APR 1943 Methwold, 464 attacked the engine sheds at Bruges, enemy shipping, oil refineries, railway yards, Rotterdam dockyards, the Zeebrugge coke ovens, and the Luftwaffe assembly sheds at St Omer. However, the majority of missions were airfield attacks against occupied Europe. Other operations were against the steel works at Ijmuiden, Holland, in MAY – then during operations, 464SQN was visited by the King and Queen, on 26 MAY 1943.[104]

[Colourised from ww2aircraft.net]

AJ466 SB-H during the Royal Visit to 464SQN, RAF Methwold on 26 MAY 1943

On 1 JUN 1943, 464 transferred to **Fighter Command** as part of the 2nd Tactical Air Force, and was advised of re-equipment with Mosquito fighter bombers. Moving to Sculthorpe aerodrome on 21 JUL 1943, the first of the new Mosquitos arrived in AUG 1943. By 31 AUG 1943, 464 had flown 321 sorties and 170 000 operational miles in its year on Venturas, and the last Ventura was flown out on 22 SEP and Mosquito operations began in OCT. As the Mosquito was a two-seat aircraft, wireless operators and air gunners were posted out. Ops continued as intruder raids against convoys, supply trains, rail marshalling yards and road junctions, and soon with the JUN 1944 Normandy landings, targets became troop installations and bridges to support the landings. 140WG became renowned for its precision low-level raids – attacking Amiens Prison, Belgium, on 18 FEB 1944, Gestapo HQ at Aarhus, Denmark, on 31 OCT, then Copenhagen on 21 MAR 1945. In FEB 1945 464SQN moved to France, disbanding at Melsbroek in Belgium on 25 SEP.

464 Squadron Codes – from SEP 1943

464SQN Code	Serial	Details and Name	464SQN Code	Serial	Details and Name
SB-A	AE685		SB-N	AE847	AE876; AJ212; AJ213
SB-B	AE695		SB-O	AE853	*"Whakatangata"*
SB-C	AE880	AJ224	SB-P	AJ491	
SB-D	AJ231		SB-Q	AE688	AE702
SB-E	AE937	to SB-T; AE945	SB-R	AE684	AJ453
SB-F	AJ174	*"ANZ"*	SB-S	AE908	
SB-G	AE939		SB-T	AE937	
SB-H	AJ466		SB-U		
SB-I			SB-V		
SB-J	AE854	*"Joybelle"*	SB-W		
SB-K			SB-X		
SB-L			SB-Y		
SB-M	AE719	AE751; AJ223	SB-Z		

References for 464SQN codes: *adf serials* A59 database, imagery. Codes separated by the roundel, 'SB' ahead of the roundel.

464 SQUADRON VENTURA Mk.II AE939 / SB-G

464SQN flew the Ventura for twelve months, from SEP 1942 against continental Europe until replaced by the Mosquito in SEP 1943. 464SQN started with both Mk.Is and Mk.IIs – *adf-serials* lists 464SQN receiving 15 Mk.Is and 30 Mk.IIs – the difference being the engines and the bomb bay. (Ventura deliveries for Britain were shipped to Liverpool and then erected at the nearby Speke aerodrome.) At Feltwell, Norfolk, 464SQN formed 140 Wing with 487 RNZAF and 21 RAF Squadrons, moving to nearby RAF Methwold on 3 APR 1943, then becoming part of Fighter Command and transferring to RAF Sculthorpe on 21 JUL for re-equipment with the Mosquito.

[IWM colour image]

Ventura II AE939 SB-G, based at Feltwell, Norfolk JAN 1943

[Colourised from AWM UK0312]

AE853 SB-O *"Whakatangata"* at Methwold, Norfolk, JUL 1943
Mixed RAAF and NZ crew, the motif was a kiwi on a boomerang.

[Colourised from IWM HU81281 via ww2bombers]

AE854 SB-J *"Joybelle"* at Methwold, JUL 1943
"Joybelle", "Joe" the gremlin, colours Southern Sky DK72047

459 SQUADRON

459SQN was formed on 10 FEB 1942, at Burg-ci-Arab, Egypt, as a Hudson GR naval co-operation unit for the Eastern Mediterranean. The major role was attacking the Axis effort to reinforce its supplies at El Alamein by 'F-boat' convoys from Tobruk to Mersa Matruh, with these attacks successfully weakening enemy reinforcements destroying a vast amount of supplies. One claim was in SEP 1942 when a 459SQN Hudson was credited with probably sinking a destroyer near Tobruk. At this stage, 459SQN was considered a young unit composed entirely of pilots trained under the EATS. 23 OCT 1942 marked the decisive Allied offensive that opened at El Alamein, and by early NOV, the enemy were in retreat – as the ports were recaptured, 459SQN roles were to escort troopships, tankers and supply vessels, and attack enemy shipping. Moving initially to Gambut in Libya in DEC 1942, and 459 was then truly mobile operating from airfields in the Western Desert, Cyprus, Palestine, Southern Arabia and Eritrea. MAY marked a complete year of operations, a total of 6775 operational hours from 1294 sorties. In JUN 1943 a Hudson sank German U-boat U-97: the crew comprised Dave Barnard, George Crisp and Brian Cobcroft (see Ventura next page). 454SQN had formed with Blenheims and as part of 235WG, both units worked together, tasked with anti-submarine and convoy escort work. Night bombing commenced in the Aegean and on the Axis-defended islands of Crete, Rhodes and the Dodecanese.

In **DEC 1943, Ventura Mk.V** aircraft arrived and conversion commenced, and night bombing operations would continue against Rhodes and the Aegean. In APR 1944, 459SQN moved to Palestine at Ramat David, and shortly after to St Jean (near Haifa). In JUL 1944, Venturas were replaced by Baltimores and moved to Berka in Cyrenaica, and bombing continued in the Aegean and against Rhodes. On 16 FEB 1945, 459SQN moved to Almaza (Beirut), but the plan to relocate the unit to Britain within Coastal Command for 'Leigh Light' Wellington night GR duties. This plan was however cancelled, and on 10 APR 1945, 459SQN disbanded.[105]

[du Plessis WWII colour collection]

Beautiful colour image of Hudson VI AE626, of ME Comms FLT Egypt, summer 1942

This shows well *Temperate Sea Scheme (TSS)* adapted for the Middle East: the green tonal value of the *Dark Slate Grey* is apparent, with the rich darker blue *Azure* undersurfaces. Still wearing type-A1 roundels, these changed in JUL 1942 to type-C1 roundels.[106]

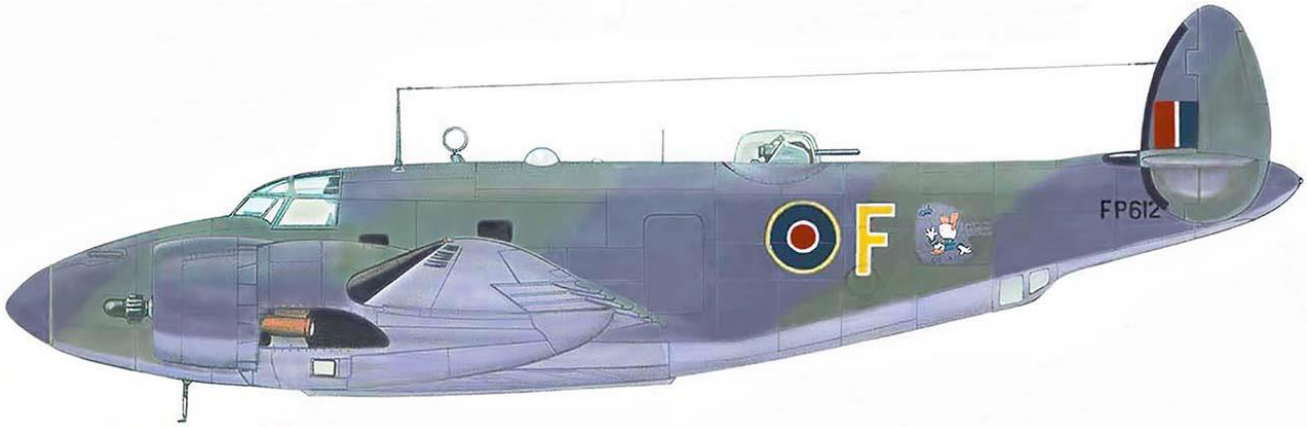
459 Squadron Codes – from DEC 1943

459SQN Code	Serial	Details and Name	459SQN Code	Serial	Details and Name
A	FP562	FP592, JS838	N	FP547	
B	FP544	JS937	O	FP556	
C	FP541	JT835	P	JS899	
D	FP653	CO's *"You Beaut"*, JT809	Q	FP569	
E	FP537	JT824	R	FP542	JS960
F	FP612	Donald Duck *"Air Pockets"*; JS961	S	FN997	FP543
G	FP609	JS916	T	JS926	
H	FP604	JS982, JT892	U	JS980	
I	FP599		V	JT834	
J	FP670		W		
K			X		
L	JS908		Y		
M			Z	FP631	

Records indicate that 459SQN received 46 Mk.Vs. References for known 459SQN codes: *adf serials* A59 database, imagery. The unit did not use a dual letter squadron code on Venturas, just a single letter codes behind the roundel.

459 SQUADRON PV-1 VENTURA GR.V FP612 / 'F' MAR 1944

459SQN operated the Ventura GR.V (the PV-1) only for six months between DEC 1943 to JUL 1944; nominally a GR squadron, the role was primarily bombing, often by night. **FP612** was from the RAF Lend-Lease PV-1 batch FP549/FP684, Bu34586/Bu34967, being ex-Bu34764 (msn 237-5654).[107] This was manufactured in the USN 4-colour scheme, but of course changed to RAF *Temperate Sea Scheme (TSS)* with C1-type roundels. The 459SQN Unit History shows it on strength from JAN 1944 (replacing Hudson FK579 as 'F'), until APR 1944 (JS961 became the new 'F').



[Colourised from AWM 2018.125.4.124]

[Colourised from AWM 2018.125.4.122]

'F' crewmembers MAR 1944 and the Donald Duck "Air Pockets" artwork

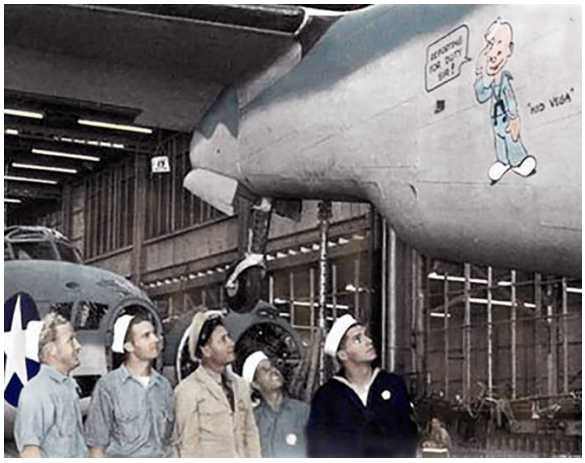
The AWM image 2018.125.4.124 shows PLTOFF Dave Barnard's crew annotated "Shorty, Crisp and Geoff Tuxford while Brian Cobcroft on course" – Barnard's normal crew was George Crisp, Brian Cobcroft, and "Shorty" Purcell. It was not until late FEB 1944 that Tuxford substituted for Cobcroft in Barnard's crew and in **MAR 1944** they all flew FP612/F.

Ventura GR.V FP612/F *[Colourised from adf-serials]*
Not a great image to colour, but shows the sharp demarcation of the *Azure*.

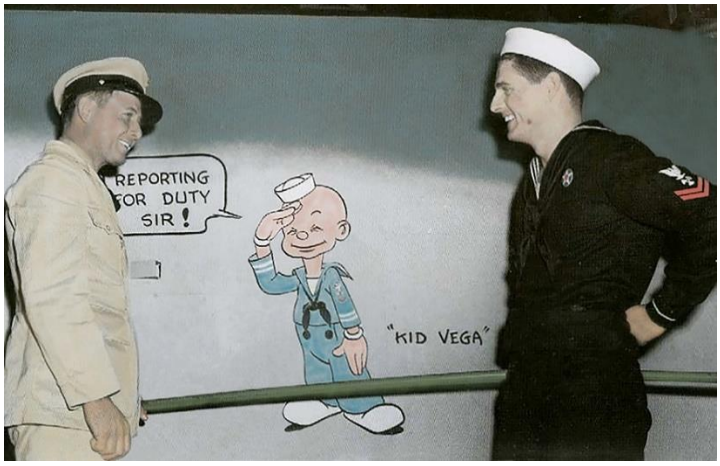
FP653/D *"You Beaut"* *[Colourised from adf-serials]*
Colours of 'D' nose art from Red Roo decal 72161

THE SECOND PV-1 – Bu29724 "*Kid Vega*" 1942/1943

Bu29724 (msn 237-4877) is shown here on the line in late 1942 rolling out at Burbank, and on its maiden flight in early 1943. It was the second PV-1, the first batch of 200 being serialled Bu29723 to Bu29922, all for the USN. To mark deliveries of the first PV-1s to the USN, the second aircraft **Bu29724** was marked by a specially designed Disney character, "*Kid Vega*". Production was soon ramped up to some three to four PV-1s per day, with the next batch of 300 (Bu33067 to Bu33466) rolling off the line from APR 1943 – the first PV-1s for the RAAF were from this batch (**A59-50, A59-51**), delivered in JUN 1943.



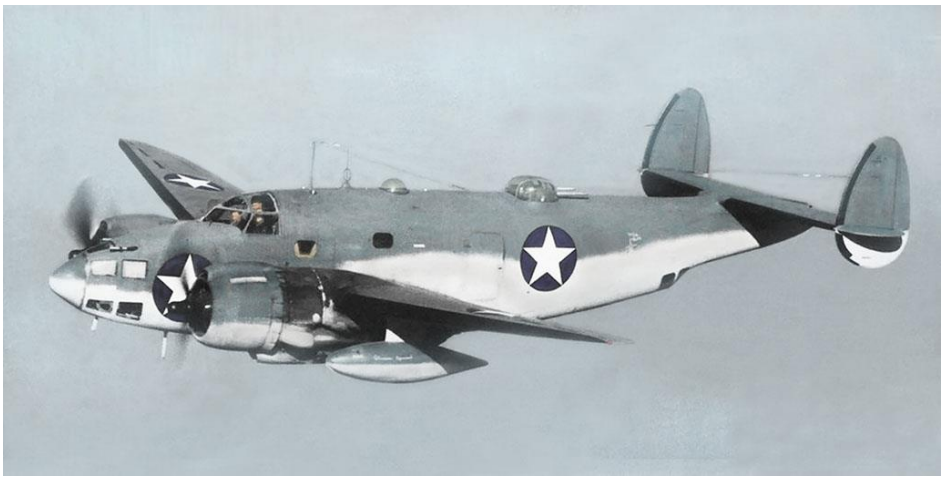
[Colourised from Lockheed, via ww2bombers]



[Colourised from rcafno128sqn site]

PV-1 Ventura Bu29724 with Disney's *'Kid Vega'* starboard fuselage art late 1942

From the first PV-1 batch, *Kid Vega* shows the early glazed bomber nose windows of the next aircraft on the line, presumably Bu29725, and the forward USN star when Venturas carried two cockades per side – the first RAAF PV-1 **A59-50** was delivered in this style of USN marking. These 8-position national insignias were carried over from the pre-war 'Neutrality Patrol' days.[108]



[Colourised from USN AN-61580]

Bu29724 maiden flight beginning of 1943 showing port side, and below the starboard *Kid Vega* artwork

[Colourised from USN AN-61582]

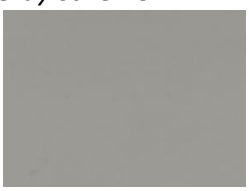
These 8-position national insignias were carried over from the pre-war 'Neutrality Patrol' days. Bu29724 was with USN squadron FAW-9 HEDRON (Fleet Air WG HQ SQN), when it was badly damaged in a taxy accident at Floyd Bennett Field NY, on 26 SEP 1944. Although there was substantial damage to aircraft, the crew was unhurt, and the aircraft presumably was SOC.[109]

PV-1 VENTURA COLOURS 1943

[Colourised from ww2bombers]

Early production PV-1 Bu29767 msn 4920 (with *Yellow* msn and '20' on the rudder) at Burbank JAN 1943

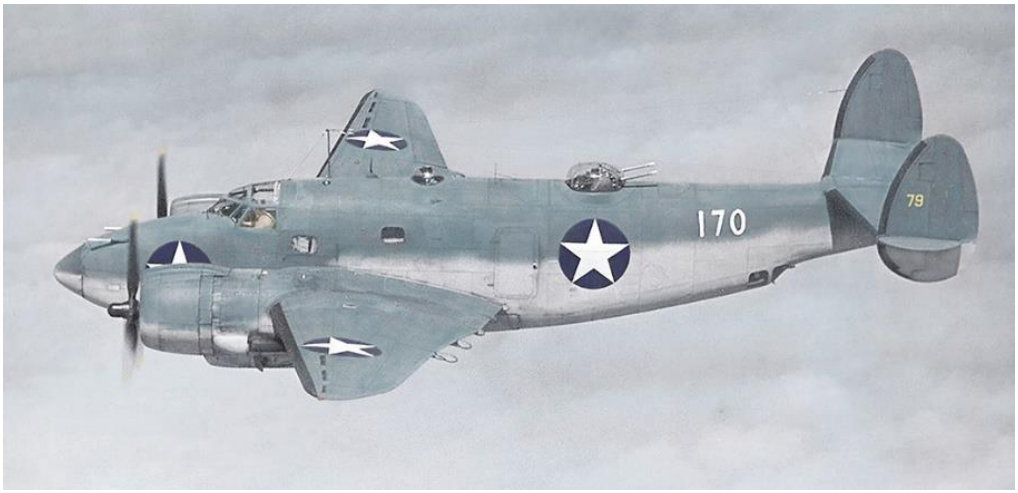
The first batch of PV-1s left the plant in this *blue/gray* camouflage scheme, which was in accordance with the **USN 8/20/1941** standard.[110] These also were marked with eight "Star in Circle" US National Markings, four on the fuselage, and four on both wing surfaces. Wing markings were changed on 1 FEB 1943 to only retain one marking on the upper left and one on the lower starboard – which has remained to this day. Officially termed *Blue-Gray M-485* over *Light Gray M-495*, this remained until early 1943. For the PBY Catalina, *Blue Gray/Light Gray* had been the standard camouflage scheme from 1941, and the RAAF's Lend-Lease PBY-5 and PBY-5A aircraft (A24-31 to A24-114) were delivered in these colours. The early PV-1s coming off the production line in JAN 1943, with the original glazed bomber nose, were delivered in this two-colour *Blue Gray/Light Gray* scheme.[111]



Blue Gray M-485 **(later FS595a 35189)** ***Light Gray M-495*** **(later ANA 602)**

These colours were USN ship colours, used before the ANA Bulletin colours were specified in 1943

The Official USN & USMC Aircraft Colour Guide Vol 2 1940-49 equates the USN aircraft colours to ship colours, and compares these to the later Bulletins and specifications. For ***M-485 Blue Gray*** a sample from the National Air and Space Museum matches to FS35189 (as the closest equivalent in Federal Standard 595a). ***M-495 Light Gray*** was adopted in ANA Bulletin No.166 of 4 DEC 1943 as 602 *Light Gray* (not carried over to the FS595a spec, but combined with ANA 620 *Light Gull Gray,*[112] equivalent of FS36440).



[Colourised from warbird info exchange]

USN Bu 33170 ('170' side number) msn 5179 ('79' on fin) c MAY 1943

The first two PV-1s for the RAAF, **A59-50 and A59-51**, were delivered in this scheme in JUN 1943, but the remainder delivered from JUL 1943 were in the new graduated 4-shade "non-specular" scheme. From available imagery, this changeover to the '4-shade' apparently occurred around **Bu33400** off the production line in **MAY 1943.**

PV-1 DISNEY ARTWORK AT BURBANK

Fortunately for the Lockheed Vega plant, the Disney studios was right next door in Burbank and whenever an artist had free time, he would stop by and paint cartoon characters on the noses and fuselages of aircraft that came off the assembly line. In this case, PV-1 Venturas were being built and the bulk of the characters were Donald Duck and his friends. Occasionally a new character was created, often with a pithy slogan against the axis, and soon there was "Kid Vega", the eager young naval rating.[113]

Although Mickey Mouse had been the most famous star at Walt Disney studios, he was replaced by Donald Duck in early 1940, and the beginning of WWII. Character analysis played an important part in the Disney design team of artists who created over 1,200 military insignia from 1940 to 1945. Mickey was the clean living, bashful around girls, small-town guy who never took a belligerent stance, and simply could not appear in war like poses; Donald became the Disney war hero, cocky, show-off, get-in-your-face type guy. Donald not only took over the lead in Disney war films, he appeared in the most military insignia. Much of the Ventura artwork was created by artist George 'Randy' McCraw, as shown previously. Today the complete 1,200 plus military collection is housed in the Walt Disney Archives in Burbank, but not open for public viewing. For every Walt Disney military design created at Burbank, another ten nose art creations were painted on the War front. The effect of Disney in WWII was huge and probably not given the full credit it deserves.[114]

Many USN aircraft carried Donald Duck and Mickey Mouse fuselage artwork, which was particularly prevalent on the PV-1 Venturas. This also extended to the RAAF – **13SQN A59-85 SF-R**, which had "*The Reluctant Dragon*" (a 1941 Disney movie), and a **459SQN PV-1 FP612/F** was marked with Donald Duck complaining about 'airpockets'.

[Colourised from Air Classics, MAR 2017, p.30]

HEDRON 'X5' Bu29768 in Aleutians, Donald on the phone: "*Hello Tojo, will be right over with a little present for you*" 1943

Previously with USN bomber squadron VB-135, joining HEDRON in MAY 1943 in the Aleutians – on the bomb is "Block Buster".

[Colourised from Stanaway p.36]

HEDRON PV-1 'X12' Bu33118 (previously 4V VB-136): "*Dang, I can beat a dozen Japs by myself*" 1943

This too was an early PV-1 with HEDRON, after the application of the national 'bars', and probably c AUG 1943. This early USN *blue/gray* was changed on the production line cMAY 1943, and with the *blue/white* National Markings which changed only briefly in JUN/JUL 1943 with the *Red* surround.[115] Go Mickey!

USN side numbers. If a side number appeared as just a digit, like '19', it is documented in squadron records as '19V'. The 'X' codes were assigned to Fleet Air Wing FAW-4 HEDRON aircraft, this was the wing Headquarters Squadron, however these are often captioned as being on strength with VB-135 or VB-136.

[Colourised from usaaf-noeart.co.uk]

Bu29769 '19V' of VB-135 Aleutians, "*Go Get 'Em Pal!*" 1943

[Colourised from usaaf-noseart.co]

Old coloured USN PV1 – *"I'm Savin' Somethin' Fer Tha Japs"*

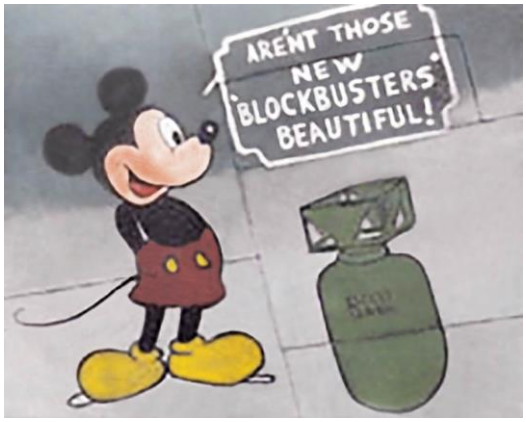
Heading for a Navy unit, this early PV-1 Ventura featured artist George McCraw's cartoon of Donald Duck diving below the surface with a bomb. The USAAF high command had frowned upon the use of land-based bombers by the Navy, and it was only after production of air force Lexingtons/Venturas was underway, that the maritime PV-1 variant was adopted for naval land-based anti-shipping and maritime patrol.[116]

[Colourised from rcafno128sqn site]

Lockheed-Vega handover of the 1000th Ventura – a PV-1, in chronological sequence this should be Bu29830 (msn 237-4983)

This is assessed as FEB/MAR 1943. The artwork shows Donald Duck (in sailor suit of course) representing the USN, Mickey representing the USAAF, and Goofy representing the RCAF and RAF. This aircraft was certainly from the first PV-1 production batch, Bu29723 to Bu29922, showing the early *Blue Gray/Light Gray* camouflage.

USN '11V' Bu33278 VB135 in 1944 2nd tour, MM Jap Huntin' *[Colourised from norpacwar]*



MM *"Are'nt Those New 'Blockbusters' Beautiful!",* PV-1, by George McGraw *[Colourised from USAAF nose art.co]*

LATER PV-1 VENTURA 4-SHADE 'NON-SPECULAR' 1943-44

The colour changeover, implemented by USN directive **SR-2C in FEB 1943**, had inherent delays – imagery narrows this to around Bu33400 coming off the line in **MAY 1943**. Below is a Lockheed publicity shot of **Bu33405** in the new scheme, assessed to have been MAY 1943 – so **Bu33405** may very well have been the first in new camouflage.

[Colourised from warbirdinfoexchange]

USN msn '14' on the fin was probably msn 5414 Bu33405, and possibly the first 4-shade PV-1

This changeover of USN camouflage had become apparent in Australia as the **JUL 1943** deliveries of **A59-52** and **A59-53** (Bu33444 and Bu33446) were in these ***new colours***, and concurrently being delivered to the RNZAF Bu33430/33442 naturally in these new colours too. Imagery exists of the nine aircraft for NZ, but not for these first two for the RAAF. The next USN PV-1 production contract (Bu34586 to Bu34997) had LL deliveries from **AUG 1943** to NZ from NZ4519 (Bu34642), and to the RAAF as A59-54 (Bu34652) and A59-55 (Bu34651), all of course in the new scheme, as were all subsequent RAAF PV-1 deliveries.

The new scheme was upper surfaces in two dark blue variations of ***ANA 606 Sea Blue*** (semi-gloss on top of flying surfaces) [FS25042], and ***ANA 607 Sea Blue*** (non-specular on top of fuselage) [FS35042]; **ANA 608** ***Intermediate Blue*** (for the sides) [FS35164]; and non-specular ***ANA 601 Insignia White*** (on the undersides) [FS37875].[117] The 'non-specular' was the term officially used in reference to camouflage finishes which provided a non-reflective or ***matt*** surface.[118] It can be seen why this is sometime referred to as a 'four colour scheme' or a 'three colour scheme' – I have used the former. On the PV-1, *White* counter shading was used on the fuselage under the wings and tailplanes.

This PV-1, being painted in the new 4-colours, was msn 5447, i.e. Bu33438 cJUN 1943 *[Colour images from historylink101]*
Coincidently, Bu33438 was delivered to the RNZAF, being received in JUL 1943 to become NZ4514.

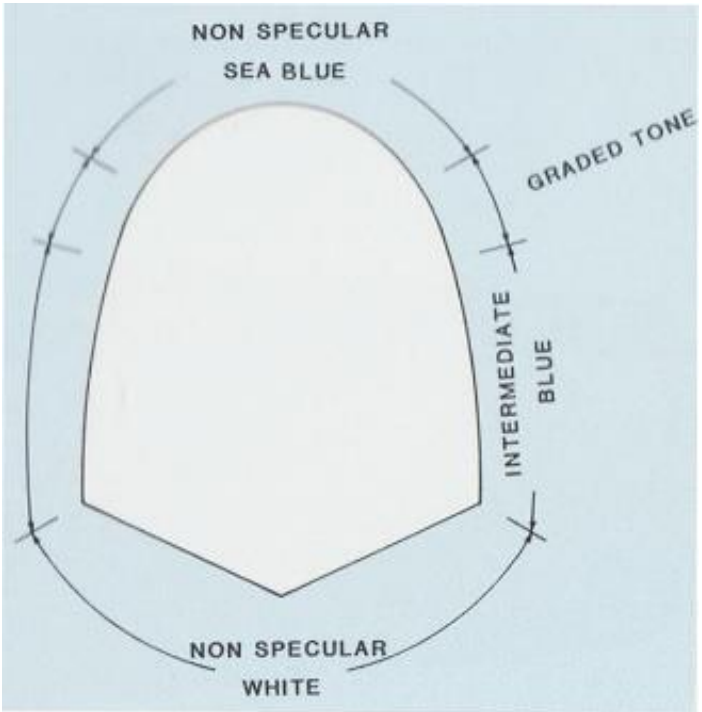
[ww2bomber colour image]

USN 4-colour camouflage on PV-1 msn fin number '25'

This image of PV-1 '25' could be a PR shoot of the new USN markings – 4-shade camouflage introduced cMAY 1943 with star and bars introduced in AUG 1943 – and could possibly be msn 237-5625 Bu34735 of the third PV-1 batch, and delivered cAUG 1943.

Counter-shading blending colours on a round surface together minimised the shadows by lightening the colours. All horizontal wing surfaces seen from above were finished in semi-gloss *Sea Blue* (the slight shine of these surfaces tended to match the changing shine of the sea), and care was taken not to apply this to the rounded fuselage surfaces which could cause glare.

Non-specular Sea Blue was applied over the top of the fuselage and around leading edges, extending about 5 percent aft on the top surface. All surfaces viewed from below were painted non-specular *Insignia White*. Vertical surfaces of the of the fin and rudder were finished in *Intermediate Blue*, with the sides of the fuselage were graduated from the *Sea Blue* down to the *White* so there was no noticeable demarcation in colours. Care was taken not to let the *White* move up the side beyond a tangent 30° (see below) from the horizontal to eliminate glare; engine nacelles were treated the same as the fuselage.[119]



[Elliott, p.35]

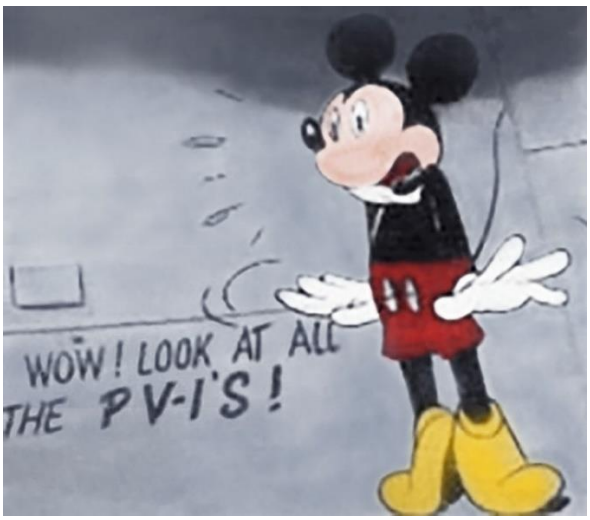
USN fuselage cross-section for camouflage of large fuselage aircraft (Ventura)

MICKEY MOUSE ON PV-1 4-SHADE 1943-44

Anti-Japanese: Most RNZAF Venturas bore the Lockheed-Vega plant added Walt Disney studios cartoons on their rear fuselage sides. As most of these were sharply anti-Japanese, they were ordered to be painted over before the aircraft headed to the operational area due to the fear that if downed, and the crew captured, these cartoons wouldn't help to enhance their treatment at the hands of the Japanese. Most of these painted over areas show as a large patch of fresh paint in photos taken at the time.[120] The RNZAF Venturas were delivered at the same time as the RAAF PV-1s, and while some did, not much of the Disney artwork survived in the RAAF.

[Colourised from usaaf-noseart.co]

New USN PV1 – *"We've Got Their Number But We Cant Reach It"*



[Colourised from usaaf-noseart.co]

New USN PV-1, Mickey Mouse was impressed by the PV-1 line

Probably second PV-1 batch Bu33067/33466 after the colour scheme changed in mid-1943

[Colourised from usaaf-noseart.co]

New USN PV-1, Mickey Mouse "*That's The Finish For That Sub Pilot!*"

RAAF PV-1 DELIVERY SCHEMES

Like the RAAF, the RNZAF first received Lend-Lease RB-34 Lexingtons from MAY 1943 before its PV-1 Venturas, and as with the other Commonwealth countries, all models were known as the Ventura. Both the RAAF and RNZAF received its first Lend-Lease PV-1s in JUN 1943, which having been shipped to Hawaii, were flown south across the Pacific. From this stage, the RNZAF received nine aircraft per month, and the RAAF two – probably as Australia was receiving so many other Lend-Lease deliveries. These early deliveries are significant as they were at the change-over of the USN camouflage scheme from the *'blue-gray'*, to *'four-colour' non-specular* (the 4th colour being the upper surface *semi-gloss Sea Blue*, differing from the upper fuselage *non-specular Sea Blue* [121]).

SOUTH PACIFIC PV-1 DELIVERY SCHEMES

RB-34. Australia and New Zealand first received the ex-USAAF RB-34 Lexington – known in the Commonwealth countries as the 'Ventura' – under Lend-Lease, before the PV-1 deliveries. The 20 RAAF aircraft were serialled **A59-1 to A59-20**. The 23 RNZAF aircraft were NZ4583 to NZ4605; details of RNZAF Venturas are recorded in *adf-serials*.[122]

PV-1. The first PV-1 contract was for 200 aircraft (Bu29723 to Bu29922) for USN deliveries only; the next was a USN/Lend-Lease contract for 400 PV-1s (Bu33067 to Bu33466, msn 237-5076 to -5475),[123] and during this production run in approximately MAY 1943, the USN camouflage scheme was changed.

Receipt Date	RAAF	RNZAF	Scheme
JUN 1943	Bu33321, Bu33316 Became **A59-50, A59-51**	Between Bu33303 and Bu33320 Became NZ4501 to NZ4509	All delivered in early *'blue-gray'* camouflage.
JUL 1943	Bu33444, Bu33446 Became **A59-52, A59-53**	Between Bu33430 and Bu333442 Became NZ4510 to NZ4518	All RNZAF aircraft delivered in newer *'4-shade non-specular'* camouflage; assessed RAAF aircraft were as well.
The third PV-1 contract was for 412 PV-1 aircraft, Bu34586 to Bu34997 (msn 237-5476 to -5887).			
AUG 1943	Bu34652, Bu34651 Became **A59-54, A59-55**	Between Bu34642 and Bu34650 Became NZ4519 to NZ4527	All aircraft delivered in newer *'4-shade non-specular'* camouflage.

USN Schemes. The two RAAF PV-1 delivered in JUL 1943, **A59-52** and **A59-53** (Bu33444 and Bu33446) were apparently not in the earlier scheme, ***but*** more likely were new-coloured aircraft, as Bu33430/33442 for NZ were *concurrently* being delivered and are confirmed by imagery in this 4-colour camouflage. The next USN PV-1 contract (Bu34586 to Bu34997) provided LL deliveries in **AUG 1943** to NZ from NZ4519 (Bu34642) and to the RAAF as **A59-54** (Bu34652) and **A59-55** (Bu34651), all of course in the new scheme, as were all our subsequent PV-1 deliveries.

[Colourised image by Rarity, via adf-serials]

3SQN RNZAF PV1s in APR 1945 NZ4633, NZ4617, NZ4625, NZ4629 and NZ4632

These aircraft were all received in mid 1944. RNZAF roundels were in six positions and were in the *Blue/White/Blue* RNZAF style with a narrow *Yellow* surround on the fuselage only. Note that the rubber de-icing boots have been removed. When in the operational area, from a local RNZAF order of 9 DEC 1943, aircraft received US-style *White* bars to the roundels. Although NZ4633 is still in the delivery US 4-colour camouflage, RNZAF repaints were in *NZ Blue Sea Grey* with *NZ Sky Grey* undersurfaces.[124]

KIWI PV-1 FUSELAGE ART

As mentioned, the closeness of the Lockheed-Vega to the Disney studios in Burbank had resulted in many of Walt Disney's cartoon characters appearing on Ventura fuselages, occasionally as nose art but in particular on the rear fuselage aft of the USN cockade, or the RNZAF roundel. Mickey Mouse and Donald Duck were both popular. For the RAAF in Australia, known Disney artwork was '*The Reluctant Dragon*' on A59-85 and *'Lady'* on A59-64.

[internet image]

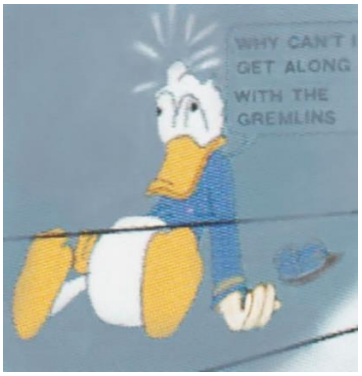
[Colourised from Classic Warbirds No.8]
1943, possibly Whenuapai. Reads "M. Mouse Loans The Axis is living in borrowed time an- we're gonna foreclose". The first nine PV-1 Venturas (NZ4501/NZ4509) in mid 1943 wore this original USN *blue-gray* camouflage scheme,[125] as shown here.

[Colourised from Warbirds No.8]
A newly delivered PV-1 to Whenuapai 1943. Our NZ listings in *adf-serials* show the first nine NZ PV-1s were delivered in JUN 1943, and this aircraft apparently too is in the *blue-gray* camouflage and would be in this batch.

[Colourised from Warbirds No.8]
NZ4516, at Whenuapai, delivered JUL 1943, msn 5449, note the repainting of a smaller roundel. Evident too is the later fuselage 4-coloured USN camouflage – NZ PV-1s that were delivered **from JUL 1943** (in batches of nine) were received in this later 4-colour scheme.

[internet image]

[Colourised from Classic Warbirds No.8]
NZ4540 '43' msn 5743/Bu34853 delivered in OCT 1943, 2SQN with a running Donald. Crashed landed New Georgia, MAR 1944.



[Colourised from Warbirds No.8] *[Artwork by Classic Warbirds No.8, p.42]*
NZ4525 2SQN RNZAF Ohakea, SEP 1943, msn 5538 Bu34648. 4-colour USN scheme: "Why Can't I get along with the *[blanked]* gremlins".

NZ4516 *"Patua Te Ra"* of 1SQN RNZAF being bombed-up at Henderson Field, Guadalcanal, in DEC 1943, by armourers of 10 Servicing Unit (10 SU). The nose art translates as "Striking the Sun", noted in *Classic Warbirds* No.8 p.38; msn 5449, Bu33440.

[Colourised by Rarity, from "Colourised RAF Fighter and Bomber Cd 1939-45"]

NZ4512 *"Slippery Sam"* 1SQN RNZAF at Henderson Field, Guadalcanal, OCT 1943
msn 5443 Bu33434 (often misidentified as NZ4511) has been reidentified in 2018; as NZ4512.[126] *Classic Warbirds* No.8 p.37, notes the hand painted *Intermediate Blue* on the plexiglass nose cone, but on its cover has a very bright, *too-bluish* colourised rendition, here is closer to the shade of USN *Intermediate Blue*.

[Colourised by Classic Warbirds No.8]

[Both images from colour video, Canadian archives]

RCAF PV-1 in the early PV-1 *two-gray* colours, in 1943

Interesting too, are the RAF style roundels: Type A1 with *Yellow* surrounds are on the fuselage, Type B on the upper wings. An individual squadron code letter' possibly with 145SQN RCAF, is marked in *Grey* aft of the roundel. Many Australian aircrew from EATS were trained on Canadian Venturas of 34OTU at Pennfield Ridge, New Brunswick.

[Colourised fromrcafno128sqn.files]

RCAF PV-1 Mickey Mouse in *"Fantasia"*, with 149SQN RCAF

Over AUG-NOV 1943, 149 (Sea Wolf) SQN RCAF operated from Annette Island. The above photo on Annette Island in AUG 1943 shows 'Randy' McCraw's rendition of Mickey Mouse from the 1940 movie *Fantasia*, where Disney combined classical music with animation. Here, Mickey is about to conduct a symphony, possibly at the film's opening Bach arrangement. Many of 149SQN's Venturas carried McCraw's Disney nose or fuselage art.[127]

RAF AIR DIAGRAM CAMOUFLAGE SCHEMES

Aircraft Design Memorandum No.332 (Issue 3) of 15 NOV 1940 [128] listed the RAF Air Diagram (A.D.) numbers for camouflage schemes for the different types of aircraft. The design of camouflage or other external colours scheme were to be in accordance with the appropriate A.D. The first three camouflage drawings were prepared in JUN 1936.[129] Shown below are RAAF examples that were subsequently added from RAAFHQ messages SAS.9984 (DTS 368/41) in DEC 1941 (DC-2, Anson, Wirraway, Battle), then additionally SAS.7396 (DTS 280/42) in JUN 1942 (Hudson and B-17).[130] This final list was consolidated for all types by the AGI C.11 (*Issue 4*) in JUL 1942.[131] However, there was still a shortage of the drawings in Australia, and the AGI directed that some aircraft should use the closest drawing available. RAAF camouflage was added to Demons from SEP 1939, and the first reference to an "A.D." in RAAF documentation was the Seagull's A.D.1174 in DEC 1939.[132] Some A.D. schemes were similar.

Air Diagram No.	Types of Aircraft	RAAF Examples
A.D.1157	JUN 1936. Twin-engined monoplanes – bombers, general reconnaissance, transports (span 75' and over)	Douglas DC-2, DC-3
A.D.1158	JUN 1936. Cancelled, and included in A.D.1160	
A.D.1159	JUN 1936. Twin-engined monoplanes – bombers, general reconnaissance, transports, army co-op aircraft (span less than 75')	Anson, Hudson, Beaufort,[133] Beaufighter

RAF Hudson Mk.III in US before delivery c1941 in A.D.1159 'A' Scheme *[du Plessis collection]*

The A.D.1159 was the scheme used for the Ventura, but by the time first deliveries were made to Britain in 1942, "mirroring" had been discontinued and the pattern standardised on what had been this 'A' scheme.

A.D.1160	MAR 1937. Single-engined monoplanes – army co-op aircraft, fighters	Wirraway, Battle, Hurricane [134]
A.D.1161	c 1938. Four-engined monoplanes – bombers, GR, transports	B-17 Fortress
A.D.1162	c 1938. Single-engined biplanes – army co-op aircraft, fighters	Demon
A.D.1163	FEB 1939. Four-engined monoplanes – general reconnaissance (flying boats)	
A.D.1164	FEB 1939. Twin-engined monoplanes – general reconnaissance (flying boats)	Catalina
A.D.1165	FEB 1939. Twin-engined biplanes – general reconnaissance (flying boats)	Seagull V *[prior to A.D.1174]*
A.D.1166	FEB 1939. Twin-engined biplanes (sesquiplane) – GR (flying boat)	
A.D.1167	Single-engined monoplanes – communications aeroplanes, trainers	Wackett
A.D.1168	Twin-engined monoplanes – communications aeroplanes, trainers	Oxford
A.D.1169	FEB 1939. Single-engined biplanes – communications aeroplanes, trainers	Tiger Moth
A.D.1170	Single-engined monoplanes – target towing	
A.D.1171	FEB 1939. Single-engined biplanes – target, pilotless aeroplanes	
A.D.1172	Single-engined biplanes – Fleet Air Arm	
A.D.1173	Single-engined monoplanes – Fleet Air Arm	
A.D.1174	MAR 1939. Single-engined biplanes – general reconnaissance, FAA	Seagull V
A.D.1175	Twin-engined biplanes – communications aeroplanes, trainers	
A.D.1176	Cancelled, and included in A.D.1159	
A.D.1291	Four-engined biplanes – communications aeroplanes, replaced A.D.1177	D.H.86

"Mirror" and "Shadow Compensating". Where the Air Diagram showed two variations of the scheme, being "**mirror**" images of one another, the variations had been allocated to aircraft as directed in the manufacturers' contract instructions: this instruction was discontinued in **JAN 1941**. In addition, biplanes had a "**compensating scheme**" with lighter camouflage shades for the areas in shadow from the wings: this instruction was discontinued by the RAF in **DEC 1940**.

EVOLUTION OF RAAF VENTURA MARKINGS

In past articles in this series, individual aircraft camouflage and marking details for each RAAF type from entry into service (often resulting from the origin of the aircraft), through RAAF operations, to final changes at the end of the War. Below is a chronology of RAAF policy generically – and for the Ventura specifically – from the RAF battle over Europe, Japan's entry into the War on 7 DEC 1941, and the changing USN colours over 1942-43. Initially Ventura production had been for RAF contracts, and followed Lockheed Burbank production of the Hudson camouflaged in the *Temperate Land Scheme (TLS)* A.D.1159 pattern (identified as the 'A' pattern on the official AIRMIN Diagram[135] where *green/brown* demarcation *sloped forward on the port fuselage, aft on the starboard*). 'A' scheme had been chosen after the "mirroring" requirement was cancelled, and then standard on Ventura production over 1941-42.

Year	Change	Policy and References
1941	**JAN 1941.** The RAAF had adopted RAF camouflage schemes, and largely too the colours and policy. RAF camouflage colours had been introduced into factory production lines in 1936.[136] The requirement for "mirror" A and B patterns on alternate aircraft was cancelled by the RAF in JAN 1941.	
1942	**JUN 1942. Deletion of *Yellow* from RAAF roundels.** The RAF had introduced this *Yellow* outer ring in MAY 1940, the RAAF in OCT 1940.	**RAAFHQ DTS 280/42 of 18 JUN 1942,** filed on 1/501/329(63A); 1TG signal T.670 19 JUN 1942; Signal School Point Cook A.50, 29 JUN 1942.
	JUL 1942. The *RAAF Technical Order, Aircraft General Instruction (AGI) No.C.11* was changed by *Issue 4* of 31 JUL 1942, for operational aircraft to retain *Red/White/Blue* National Markings, and drop the *Yellow* outer ring – but there were unintended consequences. ○ Upper surfaces – *Red* deleted, *White* diameter to be 2/5 of *Blue* – the first directive of the 'Pacific' Roundel. (*Red* deleted because of the 26 JUN 1942 USN fighter attack on a RAAF Catalina.) ○ Fuselage sides – *Dull Red, White,* and *Dull Blue* roundels in the 1:3:5 proportions. ○ Undersurfaces – *Dull Red, White,* and *Dull Blue* roundels for fighters, but not bombers or seaplanes. ○ Fin markings – all aircraft marked with *Dull Red, White* and *Dull Blue* stripes of the same width, with *red* leading. Note *Red* would soon be deleted.	**RAAFHQ Technical Order AGI No.C.11 (*Issue 4)* of 31 JUL 1942.** RAF ADM.332 (Issue 3) became the Appendix I to this new AGI, listing the different camouflage schemes. Colours were specified as *Matt Dull Red* K3/214 or K3/199, *Matt Dull Blue* K3/196 or K3/197.
	TLS Camouflage Colours ***Dark Green 33B/202.***[137] Introduced to the RAF in 1936, *Dark Green* for upper camouflage pattern. Equivalent US ANA Spec 613, DuPont 71-003 (later to BS381c No.241 *Dark Green,* FS595b 34079, or 34087 tending toward US OD42). ***Dark Earth 33B/199.*** Introduced 1936, *Dark Earth* upper camouflage pattern. Equivalent US ANA Spec 617, DuPont 71-009 (later to BS381c No.450 *Dark Earth,* FS595b 30118).	
	Sky 33B/337. Introduced to the RAF from NOV 1939 as the undersurface shade for camouflaged aircraft.[138] Equivalent to US ANA Spec 610, DuPont 71-021 (later to BS381c No.210 *Sky,* FS595b 34424).[139] *Sky* not used by RAAF, preferring the richer tone *Sky Blue* K3/195.	**AMO 39/A.154 amendment of 21 NOV 1939** introduced *Sky Type S.*
	SEP 1942. Deletion of *Red* from RAAF roundels. On 19 SEP 1942 *Red* was dropped completely from National Markings – the RAAF 'Pacific' *Blue* and *White* roundel with the *White* diameter 3/5 (3:5) of the *Blue*. Roundels in six positions, with *Blue/White* fin stripes – specified colours *Matt White* K3/170 and *Matt Dull Blue* K3/197. *Yellow* surround of the 'type-A1' fuselage roundel had been overpainted in AUG 1942 with camouflage paint.	**RAAFHQ message T520, file 0947/19 (30A), of 19 SEP 1942.**

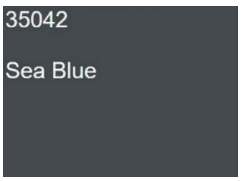
1943	**MAY 1943.** The first RAAF RB-34 Venturas arrived in RAF ***Temperate Land Scheme (TLS) Dark Green/Dark Earth.***	

RAF *Temperate Land Scheme* Camouflage

MAP *Dark Earth*	**MAP *Dark Green***	**MAP *Sky Type S***	**RAAF K3/195 *Sky Blue***

When aircraft underwent repair or refurbishment at RAAF Aircraft Depots (AD) or Repair and Salvage Units (RSU), RAF Ministry of Aircraft Production (MAP) *Dark Earth* would be replaced by RAAF *Earth Brown* (K3/178), and MAP *Dark Green* by *Foliage Green* (K3/177). MAP *Sky* undersurfaces had typically been overpainted by RAAF *Sky Blue* (K3/195) on arrival. With prior USAAF service, some RB-34s may have had the *DG* overpainted by the acceptable replacement, *US Dark Olive Drab*, which was considered close enough to RAF *Dark Green*, so was substituted from MAR 1942, when available stocks of MAP *Dark Green* were exhausted.[140] The US Joint Aircraft Committee (JAC) was established in SEP 1940 to coordinate the production efforts of the Army and Navy, and Britain – and standardising camouflage colours and schemes from MAR 1942. For instance, any ship-based aircraft or flying boats would be painted the USN colours *Blue Gray* on upper surfaces and *Light Gray* on undersurfaces. Land-based aircraft would be USAAF *Olive Drab* on top, and *Neutral Gray* underneath. When early aircraft were destined for the RAF, *TLS* would be used with American paint equivalents to *Dark Earth*, *Dark Green* and *Sky*. RAF colours were identified by the name, but have inventory stock numbers (the 33B/ vocabulary) which varied with the amount that was ordered.

	JUN 1943. The first RAAF PV-1 Venturas arrived in USN *Blue Gray* over *Light Gray* camouflage and in US markings.	**USN Standard 8/20/1941**.[141]
	JUL 1943. RAAF roundels had often been converted from RAF roundels in 3:5 and 2:5 ratios; some in 1943 were 1:2 ratio, from converting RAF type-C1 roundels. Initially for Venturas, 48" 3:5 roundels were applied on arrival by 2AD.  **Ratio of the *White* to the *Blue* – 3:5 and 2:5**	**RAAFHQ AMEM DTS 1/501/329 SAS 13552, 8 JUL 1943,** adapted from RAF AMO A.664/42, of 2 JUL 1942. Further, in NOV 1943 SEAC specified the size of its new roundel (**based on that of the RAAF**) and fin flashes – (RAF) **Air Force Order (India) No.357**.[142]
	JUL 1943. By now PV-1 Ventura deliveries from Burbank were in the new USN *4-colour scheme*, and those delivered to the RAAF from this month (A59-52 on) were in this new scheme.	**USN Directive SR-2C dated 5 JAN 1943.**[143]

USN *Blue/Gray* Camouflage to MAY 1943		**USN *4-shade "Non-specular"* from MAY 1943**	
			
USN *Blue Gray M-485*	**USN *Light Gray 602 M-495***	**USN *Sea Blue***	**USN *Intermediate Blue***

1944	**JAN 1944.** From early 1944, arrival of PV-1s ferried from Hawaii, still in US markings, apparently had 'reversed' fin flashes incorrectly applied (*Blue* leading). Later in Australia, a smaller 40" RAAF 3:5 roundel was applied over the US star, to provide a unique marking of RAAF roundel with 'bars'.	
	MAY 1944. Revision of AGI "Camouflage Schemes and Identification Markings". Overall *Foliage Green* for GR/B.	**RAAFHQ T.O. AGI Pt 3(c), Instruction 1, file 150/4/5056 (1A), of 26 MAY 1944. Also issued as DTS Special Instr Gen/34 of 1 MAY 1944.**
	NOV 1944. PV-1 Ventura A59-102 was converted to a transport in NOV 1944 (ADAT registration VH-RGW) and stripped to natural metal to become the VIP transport with 4CU for AOC RAAF Command (AVM Bostock) until 1946.	

A59-50 PV-1 IN USN *BLUE GRAY / LIGHT GRAY* – JUN 1943

A59-50 – Bu33321, msn 5330 – was received at 1AD Laverton in JUN 1943. PV-1s were delivered, flying from Hawaii, in USN markings with the first two aircraft in the early *Blue Gray/Light Gray* camouflage and with the "double Neutrality cockades". The msn last two "30" was marked on the fin in normal Lockheed/Vega fashion in *Yellow*, and the RAAF **A59-50** serial (apparently added here at Laverton in a hard-to-read *White*). The next aircraft **A59-51** was marked a little more legibly in *Grey*. These USN cockades were larger than the later 40" diameter "star-and-bar" markings, so probably were 45" in diameter,[144] and normally the RAAF 3:5 roundel was directly overpainted on the rear fuselage, but later images of A59-50 after a repaint show a much smaller roundel, marked high on the fuselage.

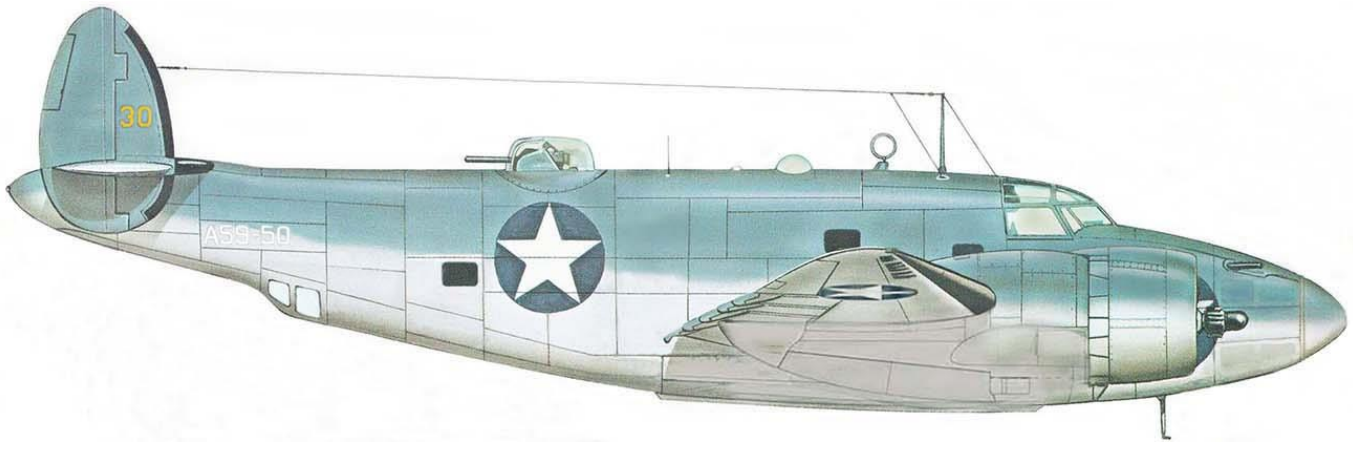
[Colourised from GRB Collection]

A59-50 on delivery to 1AD in JUN 1943 still in USN markings and with the double Neutrality cockades

1APU aircraft in the background include Beaufighter A8-1, Lancaster ED930 (later A66-1), and a Boomerang. A59-50 was delivered to 1AD Laverton in USN markings, and the starboard image below was taken at the same time as its RAAF induction.

[Colourised from GRB Collection]

A59-50 in *White*, at 1AD Laverton, received in USN markings with the "30" / 5330 msn on the fin



A59-50 PV-1 IN USN *BLUE GRAY / LIGHT GRAY* – 1944-1945

By DEC 1944, **A59-50** had received a repaint and a partial transport conversion for 1AD Test & Ferry FLT for escort duties. The demarcation between the two camouflage colours in the repaint does not have the feathering when delivered. An unusually small 3:5 fuselage roundel applied – apparently only 32" diameter – with serial in *White*. De-icing boots removed from mainplanes, but are still on the fin.

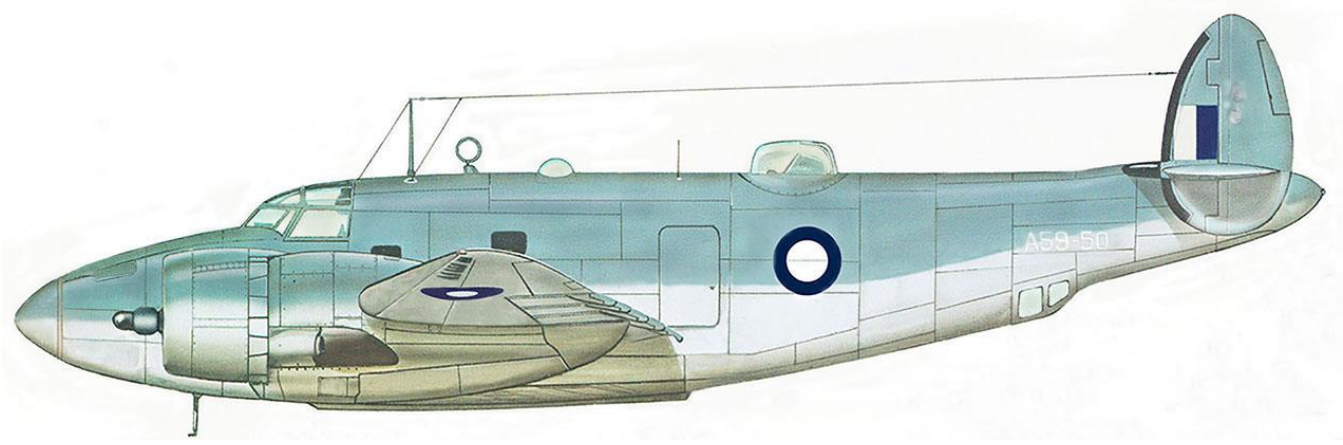
[Colourised from SLNSW FL9535240, via GRB]

A59-50 1AD Test & Ferry FLT at Merauke escorting 452SQN from Sattler at Morotai DEC 1944

The above AWM image is via the NSW State Library and shows the crew's washing line, with below the crew resting.

[Both colourised from AHSA site]

A59-50 with resting Ventura aircrew and Spitfire pilots

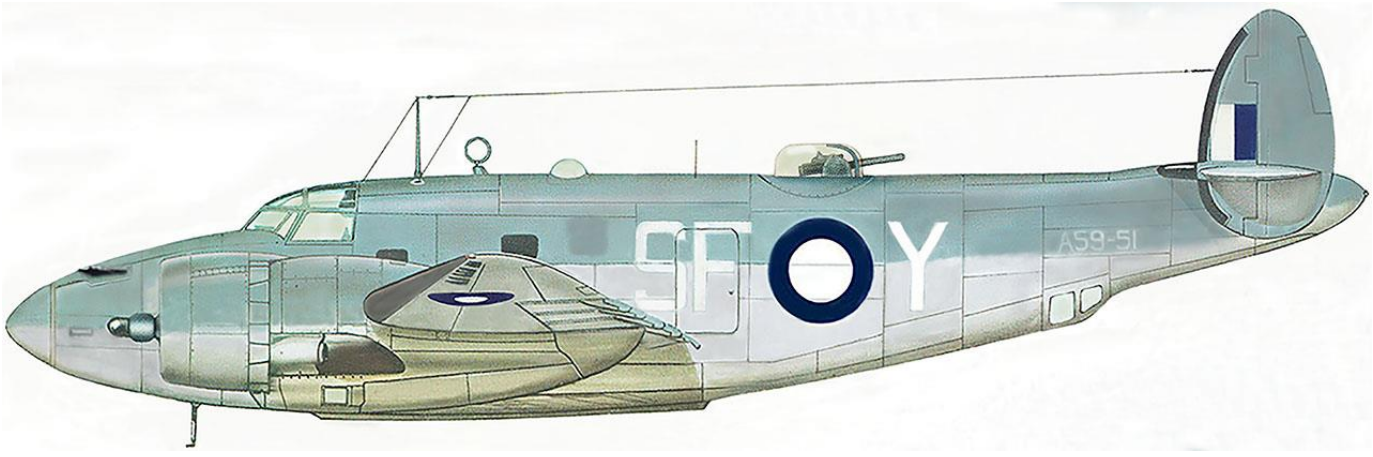


A59-51 / SF-Y PV-1 IN USN *BLUE GRAY / LIGHT GRAY* – 13SQN 1943

Squadron code letters were introduced to the RAAF in JAN 1943 by AFCO 3/43. **A59-51** (Bu33316) was the only *Blue Gray/Light Gray* PV-1 delivered to 13SQN, received by the unit in SEP 1943 and allotted the code **SF-Y**. An accident occurred on 25 OCT 1943 at Bundaberg when it taxied into a hole and the port gear collapsed. **A59-51** had larger 48" 3:5 roundel than shown on A59-50; this large 48"-diameter roundel was painted directly over the USN 45" star cockade; fin flash was 32" high x 30" wide; code letters maintain the 8x5 ratio at 40" high and 25" wide in a 5" stroke. The light discolouration below the cockpit is from overpainting of the forward USN star cockade. The undersurface *Light Grey* demarcation is not as sharp as on A59-50 (after its repaint), the **SF-Y** code appears *White* (with no hint of a *Black* outline at this stage, as has been discussed), and serial number marked in *Medium Sea Grey*.

[Colourised from ww2bombers]

A59-51 SF-Y port undercarriage collapsed in taxy accident at Bundaberg QLD, on 25 OCT 1943



As previously related, A59-50 and A59-51 were the only two PV-1s delivered to Australia in this early two-colour *'blue/gray'* scheme. Of the two, the only one to serve with 13SQN was **A59-51**. The 13SQN *A.50 Unit History* shows the first PV-1s received by the unit at Canberra were A59-52 and A59-53 in AUG 1943, next **A59-51** and A59-54 on 10 SEP 1943. After its accident at Bundaberg on 25 OCT 1943, **A59-51** went for repair at 3AD Amberley and then 2AD Richmond. This ended its short 6-week career on 13SQN as it then went for comms duties with 11CU in MAY 1945, returning to 2AD in MAR 1946 for long-term storage. In MAR 1944 **A59-66** joined 13SQN as the new SF-Y.

13 SQUADRON

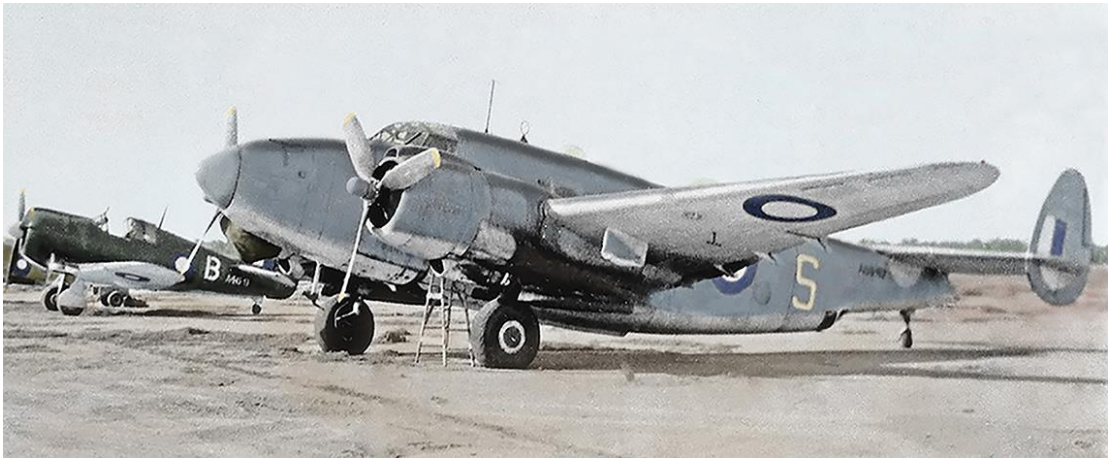
13SQN was formed as a GR unit at Darwin on I JUN 1940, with Ansons and personnel from 12SQN, for maritime patrols and searches. Receiving its first Hudsons from AUG 1940, 13SQN surveyed local airfields and then those further afield in northern WA. By early 1941 airfields at Drysdale, Milingimbi and Bathurst Island were designated as Advanced Operational Bases, familiarisation flights were undertaken to the NEI, and the Hudsons were fitted with dorsal Boulton-Paul gun turrets. With the outbreak of war with Japan imminent, on 6 DEC 1941, 13SQN 'A' and 'C' Flights moved to the NEI, and were soon declared operational at Laha on Ambon, and then Namlea. On 6 JAN 1942, the Japanese bombed Laha and the raid highlighted the lack warning facilities. Sustained heavy attacks from 11 JAN saw 13SQN evacuate to Darwin by the end of the month. On 8 FEB 1942 two Flights moved further inland to Daly Waters, then during the first bombing of Darwin on 19 FEB, all 13 SQN aircraft were airborne assisting in the evacuation of Timor. 13SQN sustained heavy losses over this period, and over the next months only a few serviceable Hudsons were available each day, often despatching lone aircraft to attack heavily defended positions. While Japanese attacks continued on Darwin, Broome, Derby and Katherine, 13SQN regrouped and on 2 MAY 1942 moved to its new base at Hughes, maintaining recce flights and the bombing of enemy establishments.

13SQN relocated to Canberra and rearmed from JUL 1943, with 'B' FLT Beauforts and 'A' FLT PV-1 Venturas. The Beauforts were replaced by RB-34s in early 1944, soon found to be unsuitable and grounded in MAY 1944. 13SQN fully equipped with PV-1s and moved north to Cooktown in JUN 1944. The time at Cooktown was short, as the unit moved again in AUG 1944 to Gove, NT. From Gove, 13SQN operations consisted mainly of maritime patrol and escort duties, and after operating from Gove for ten months, moved to Morotai in JUN 1945, where it remained until the end of the War. Moving then to Labuan on the west coast of Borneo, 13SQN commenced operations on 16 AUG with leaflet dropping, and some Venturas were refitted for temporary transport duties for the repatriation of servicemen and POWs. After a visit by Admiral Louis Mountbatten in DEC to address parade, 13SQN disbanded on 11 JAN 1946.[145]

13 Squadron Codes – from 1943

13SQN Code	Serial	Details and Name	13SQN Code	Serial	Details and Name
SF-A	A59-81	A59-103 '*Ye Boss*'	SF-N	A59-84	
SF-B	A59-79	A59-101	SF-O	A59-60	A59-67
SF-C		not used	SF-P	A59-67	A59-59, A59-75
SF-D	A59-77	A59-81 '*Wiff Oh*'	SF-Q	A59-75	A59-71
SF-E	A59-76		SF-R	A59-83	A59-85 '*The Reluctant Dragon*'
SF-F	A59-72	*'Southern Job',* A59-73 poss	SF-S	A59-57	A59-104
SF-G	A59-69	A59-86	SF-T	A59-56	A59-98
SF-H	A59-64	spaniel artwork	SF-U	A59-62	*[originally A59-55?]*
SF-I		not used	SF-V	A59-63	[*originally A59-54?]* A59-89
SF-J	A59-11	A59-78	SF-W	A59-53	A59-84, A59-53
SF-K	A59-67	A59-99	SF-X	A59-52	A59-61
SF-L	A59-68		SF-Y	A59-51	A59-66, A59-70
SF-M	A59-99		SF-Z	A59-65	

References for 13SQN codes are primarily Garry Shepherdson's unique research of signal traffic, together with surviving imagery. Many code letters were *Yellow* thinly outline in *Black*, and always read, for example, SF*A on both sides.



PV-1 A59-57 SF-S without turret in early 1945 *[Colourised from GRB Colln]*

A59-57 joined 13SQN as original equipment in OCT 1943, but by this stage its paint has faded, the de-icer boots removed, and it still retained the original 1943 applied markings, also keeping its SF-S code until replaced by A59-104 in APR 1945.

'SF' CODE LETTER COLOURS

Squadron code letters were introduced to the RAAF in JAN 1943 by AFCO A.3/43, with 'SF' allocated to 13SQN. Although some Venturas were briefly received by 2SQN ('KO') and 7SQN ('KT'), plans were changed and there is no record of RAAF Venturas carrying these code letters. Below, Beaufort code letters SF-H on A9-380 are possibly *Yellow*, and in the far background is an early scheme PV-1 – the only one with 13SQN was A59-51 – and its code SF-Y was marked in *White*. Conversely, Pentland in his Vol.2 (p.87) declared 13SQN Venturas had ***both*** *White* code letters thinly outlined in *Black*, and *Yellow* codes thinly outlined in *Black*. This has also been addressed by the *adf-serials Newsletter* Vol.11 Issue 3 2021 (pp.90-91) at ADF-Serials Telegraph

[Colourised from Pentland Vol.2, p.67]

Beaufort A9-380 SF-H with PV-1 Venturas, as 13SQN re-equipped at Canberra cSEP 1943

13SQN began to re-equip at Canberra over JUL/AUG 1943, 'A' FLT with PV-1 Venturas, and 'B' FLT with Beauforts. The allocated codes over this early period are largely unknown – but **A9-380 was SF-H**, and **A59-51 was SF-Y**. It is probable that 'B' FLT had Beauforts coded from SF-A, and 'A' FLT Venturas coded backwards from SF-Z. When 'B' FLT Beauforts were exchanged for RB-34s from DEC 1943, the RB-34s would have assumed the Beaufort codes, and at least one RB-34 was known to be coded **SF-J**.

Year	Code Colour	Reference	Reference Details
1942	***Medium Sea Grey*** **K3/183**	RAAF **AGI No. C.11** ***Issue 4,*** dated 31 JUL 1942.	Specified any identification individual letters and numbers to be marked in "Colour Identification *Medium Sea Grey*" – this is prior to allocation of unit two-letter codes.
1943	***Yellow*** **K3/185**	During AUG-DEC 1943, 13SQN was regrouping at Canberra and operating both Beauforts and Venturas. No RAAF authority for *Yellow* codes sighted – this could have been an unofficial 13SQN and 2SQN practice.	Pentland Vol.1 (p.129) identified 13SQN Beaufort A9-380 with *White* SF-H codes thinly outlined in *Black* (claimed as a practice on the unit in 1943). Vol.2 (p.67) nine years later, Pentland's research pointed to the same aircraft: "***yellow code letters were thinly outlined in black, a practice in the squadron***". This also was extended to Venturas in 1944 (p.87) with an image of A59-62: "***Its yellow codes were thinly outlined in black***"; *Classic Warbirds No.8* (Laird, p.62) also claims 13SQN **A59-61** had *Yellow* codes.
1943	***Sky Blue*** **K3/195**	**AFCO A.3/43** dated 4 JAN 1943.	This Confidential Order which allotted the two-letter Code allocations for each Squadron and Unit, and specified codes to be in *Sky Blue*, when previously individual code letters from AGI C.11 of JUL 1942 had been in *MSG*.
1944	***Medium Sea Grey*** **K3/183**	**AGI Part 3 (c) Instruction No.1**, dated 26 MAY 1944.	This Instruction listed the Ventura as a "GR/B" to be in camouflage scheme Appendix C: this was overall *Foliage Green* K3/177 with *MSG* codes, however PV-1s retained USN *Blue* camouflage. *Black* codes were to be on aluminium finishes, but not sighted on 13SQN Venturas.
1945	***Medium Sea Grey*** **K3/183**	**AFCO A.11/45** of 26 APR 1945. This Confidential Order replaced AFCO A.3/43.	"The colour of code letters is to be "black" for uncamouflaged aircraft, and "medium sea grey" for aircraft painted in foliage green, night, or PRU blue."

Note:

Sky Blue was for aircraft undersides and code letters, but was known to fade. In MAY 1944: "*Azure Blue* is to replace *Sky Blue* as it has been found that the latter colour fades to a whitish colour in Northern Areas." Beaufighters, from APR 1944 *Azure Blue* K3/316 was to have replaced *Sky Blue* on undersides,[146] this was soon overtaken by the MAY 1944 AGI, specifying overall *Foliage Green.*

Thoughts on Yellow codes

In the last edition of the Newsletter www.adf-serials.com.au/newsletter/ADF-Serials Telegraph Vol 11 Iss 4 v2c.pdf, ***Garry Shepherdson's*** *article on 2SQN Beauforts* discussed code letter colours:

"When Beaufort aircraft served with 2SQN, the officially approved colour for code letters was *Sky Blue* (K3/195). This was stipulated, "for all aircraft", in AFCO A3/43, paragraph 8.[i] The approved colour for serial numbers had been "grey" since AGI C.11 Issue 3 of 3 OCT 1940,[ii] and renamed *Medium Sea Grey* (K3/183) since AGI C.11 *Issue 4* of 31 AUG 1942.[iii] These too were the official code letter and serial number colours for the first few months of Beaufort operations by 1SQN in North Western Area. Photographic evidence is very sparse but, what little there is suggests that at least one of 2SQN's Beauforts wore what I believe were *Yellow* code letters, thinly outlined in *Black*. This, according to Geoffrey Pentland (with regard to 13SQN), was "a practice in the squadron".[iv] 2SQN received seven of its Beauforts from 13SQN with six of those aircraft being amongst the very first received. These aircraft are likely to have been handed over still wearing their former identities and, if they had been applied in the peculiar way claimed by Pentland, then the existence of such a style would have become known and the idea of perhaps implementing it themselves might have been formed. The only photographic evidence (that I know of) of a 2SQN Beaufort wearing this style of code letter was A9-576. It was not one of the former 13SQN machines. At least one of 2SQN's Beauforts had apparently *Medium Sea Grey* codes. *Sky Blue* was the official colour but whether *Sky Blue* was the norm at 2SQN as it should have been at that time isn't known. See my previous article, "*Notes Regarding No. 2 Squadron B-25s*" in ADF-Serials Telegraph Volume 11, Issue 3, pages 87 to 93. On 26 MAY 1944, a new AGI regarding aircraft camouflage and markings was released and in it, *Medium Sea Grey* (K3/183) was stipulated for all identification markings (i.e. code letters and serial numbers).[v] These were the camouflage and markings instructions in force for the remainder of 1SQN's Beaufort operations. Due to the definite lack of photographic evidence to the contrary, it seems reasonable to assume that code letter colours were applied by 1SQN in accordance with AGI C11 *Issue 4* of 31AUG42 and AFCO A3/43 and remained until sometime after these were superseded being then replaced by those applied in accordance with the revised AGIs. That, of course, should have been the position relative to 2SQN too, except for a few images being available which show contravening styles. Given the (albeit sparse) evidence of 2SQN Beauforts carrying alternative code letter colours and the much more prolific recording of the variety of code letter colours/styles employed on their B-25s, one should not rule out the (perhaps remote) possibility that 1SQN may have applied non-standard identification markings to some of their aircraft from time to time. Evidence, however, is lacking."

Notes: [i] AFCO A3/43 – *Code Letters for Operational and Reserve Squadrons* dated 4/1/43 in AFCO – Series A and B – and Index, 1943; NAA: A7674/3.

[ii] RAAFHQ AGI No.C.11, *Issue 3*, Technical Order, *Standard Aircraft Finishes, Markings, and Markings of Unit Equipment* in AGI C.11 *Standard Aircraft Finishes Markings*; NAA: A705, 150/4/852.

[iii] Reproduced in full in Ian K Baker, AHCB73 – *RAAF Colour Schemes & Markings, 1921-1951 Part 6b* (2011) pp.13-18.

[iv] Geoffrey Pentland, *RAAF Camouflage & Markings 1939-45 Vol 2* (1989), pp.67, 87.

[v] RAAFHQ AGI Part 3, Sec(c), Inst No.1, *"Camouflage Schemes and Identification Markings"*, NAA: A705, 150/4/5056.

So, several sources relating 13SQN codes point to them being *Yellow* (Pentland and Laird), and several clear monochrome images of 13SQN PV-1 Venturas during the workup period at Canberra (AUG 1943 to JUN 1944) show code letters which are definitely a different hue from the colour of the fuselage roundel *White*. Below is an image to illustrate this tonal variation showing the brightness of the *White*.

This piece of modern art is from an image of PV-1 A59-56 SF-T at Canberra in 1944

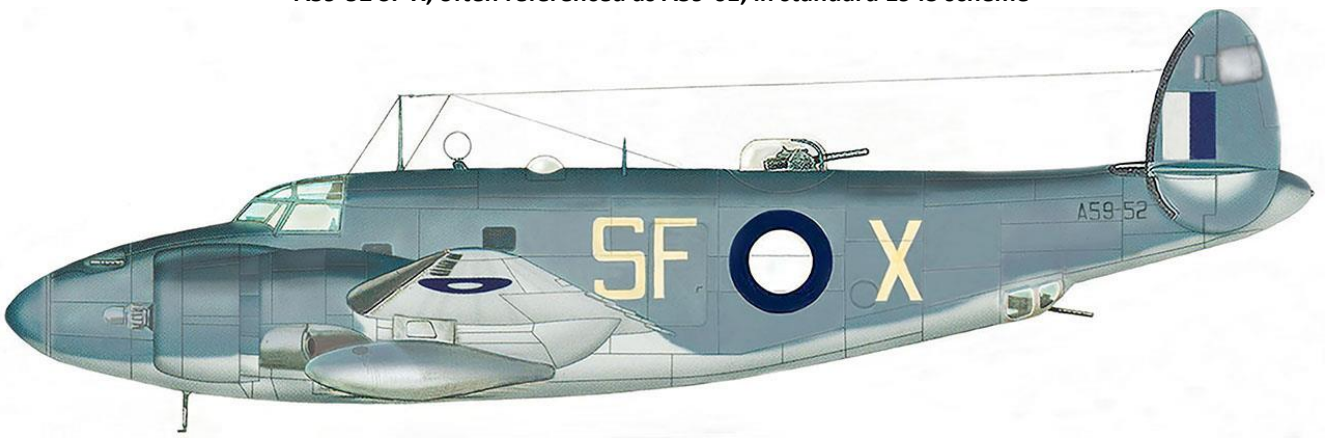
On the left is the fuselage roundel *White*, with part of the code letter 'F' transposed to show its definitely different hue in monochrome shades of grey. To the right is a larger image of 'F' (also highlighting its thin *Black* outline). Between the two images is the bottom of a propeller tip, the only known external part of the PV-1 that can be confirmed as *Yellow* – hence assessed as a *Yellow* code letter. By the way, the connection to Beauforts is because 13SQN at Canberra operated 'B' FLT with Beauforts from JUL 1943, and from AUG 1943 'A' FLT with PV-1s. From the end of DEC, the Beauforts were passed to 2SQN, as 'B' FLT received RB-34 Venturas. These proved unsuitable, sent to 2AD in MAY 1944, and more PV-1s arrived to equip 'B' FLT – by the end of MAY, 13SQN had 18 PV-1s on strength.[147]

A59-52 13SQN PV-1 SF-X – 1944

SF-X is often cited as **A59-61**, but during its early period at Canberra in 1943 I believe it was **A59-52**. **A59-52** joined 13SQN on 15 AUG 1943, crashing at Canberra on 10 NOV, and sent for repairs to 14RSU at Mt Druitt on 7 JAN 1944. **A59-52 was then replaced by A59-61** on 13SQN on 20 JAN 1944, and apparently inherited the SF-X code. A59-61 moved north to Cooktown in JUN 1944 where it definitely was SF-X – retaining this code for the rest of the War.

[Colourised from RAAF image]

A59-52 SF-X, often referenced as A59-61, in standard 1943 scheme



A59-52 was in the **2AD standard**-applied markings for the first '4-color non-specular' camouflaged PV-1s delivered to 13SQN Canberra over AUG-NOV 1943 (except for A59-51 SF-Y which was in the earlier *blue/gray* scheme). From surviving imagery it appears the aircraft of this '1943 Canberra group' (serialled **A59-52 to A59-60**) had a standard 48" roundel in 3:5 proportions, correctly applied flashes *inside and outside* each fin, and serial numbers in *Black*.[148] The 13SQN codes were a standardised size and form, and it appears that most aircraft at this stage had letters in *Yellow* with a thin *Black* outline. Marking sizes of the '1943 Canberra group' below are from measurement:

Roundels – Pacific roundels 48" diameter (121.9 cm) 3:5 on fuselage and, apparent in these images, 2:5 on the wings. The USN fuselage roundel was 40" diameter[149] (soon to have "bars" added either side), so the RAAF 48" roundel was painted over the star. Later with 1944 deliveries, the USN bars were retained with the RAAF roundel, requiring the RAAF 3:5 to be shrunk to 40".

Fin flash – 'standard', i.e. correct form with *White* leading, 32" (81.3 cm) high x 30" (76.2 cm) wide.

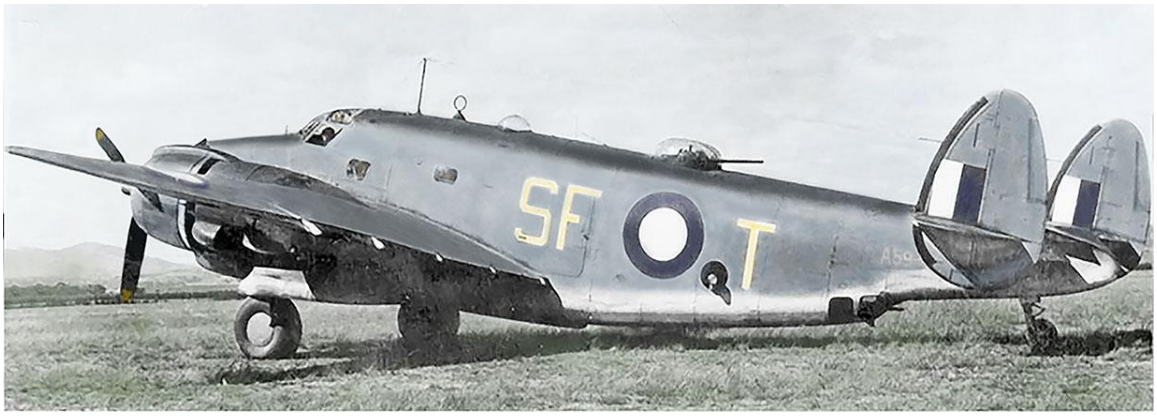
Squadron codes – letters 40" (101.6 cm) high x 25" (63.5 cm) wide, in 5" (12.7 cm) stroke (i.e. the standard 8 x 5 ratio).

All these aircraft were accepted through 2AD, probably accounting for the standardisation of markings. There are discrepancies – for instance when A59-56 was delivered its serial was *Grey*, but after a landing accident in DEC 1943 it was repaired on 13SQN and serial changed to *Black*, although not in the standard serial font.

Later aircraft in the A59-6x and A59-7x blocks had the US 'star' overpainted and retaining the 'bars' (see A59-64 and A59-75), probably on arrival at 2AD; fin flash reversal of colours with *Blue* leading was perhaps incorrectly applied on reassembly in Hawaii prior to the Pacific crossing; the 'last two' of the msn was often retained on the tail.

A59-56 13SQN PV-1 SF-T – 1943-1944

One of the early 13SQN PV-1s at Canberra in OCT 1943, **A59-56** is fitted with a port waist gun position. Later this tended to be removed and panelled over. Unusually, the serial was in grey – probably *Medium Sea Grey*.



[Colourised from GRB Collection]

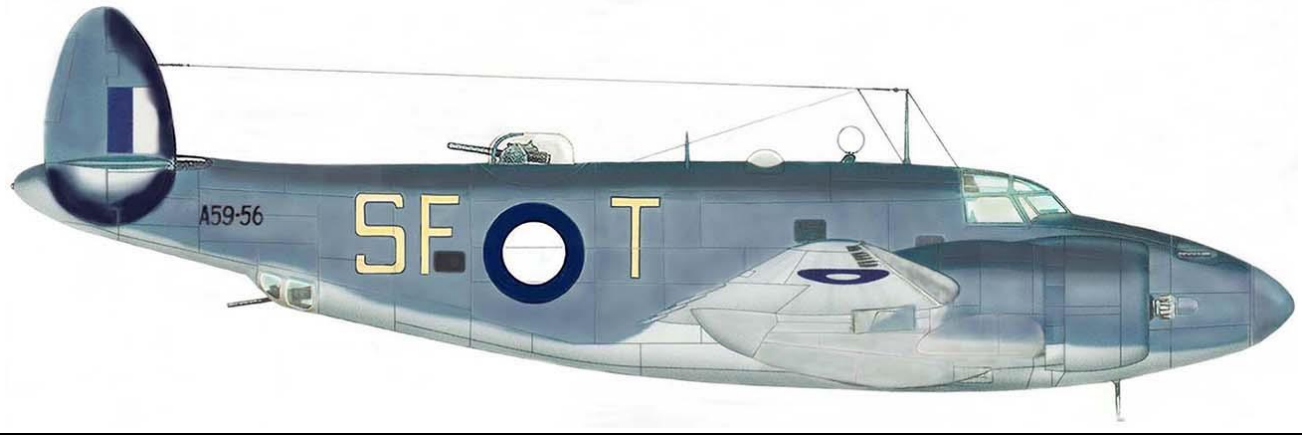
A59-56 SF-T at Canberra over 1943-44

A59-56, received by 2AD from Hawaii on 21 SEP 1943, was delivered to 13SQN at Canberra on 1 OCT. After a landing accident at Canberra on 29 DEC 1943, damaging the airframe but repairable on 13SQN, A59-56 remained on the Squadron until OCT 1944 in NWA. When at Gove NT, A59-56 went for repairs with 14ARD at Gorrie NT over OCT-DEC 1944, then returned to 13SQN, but lost when it crashed in the sea on 28 JAN 1945; A59-98 then became SF-T.

[Colourised from RAAF image]

'B' FLT A59-56 SF-T at Canberra early 1944, with a 'A' FLT RB-34 behind

Taken after the upper image, as the rubber boot de-icers have been removed, the painting of the fin leading edge is obvious. After a landing accident at Canberra in DEC 1943, **A59-56** was repaired on 13SQN, and the serials apparently re-applied in *Black*, but in this non-standard font. The RB-34 in the background helps to date this image as JAN-MAY 1944.



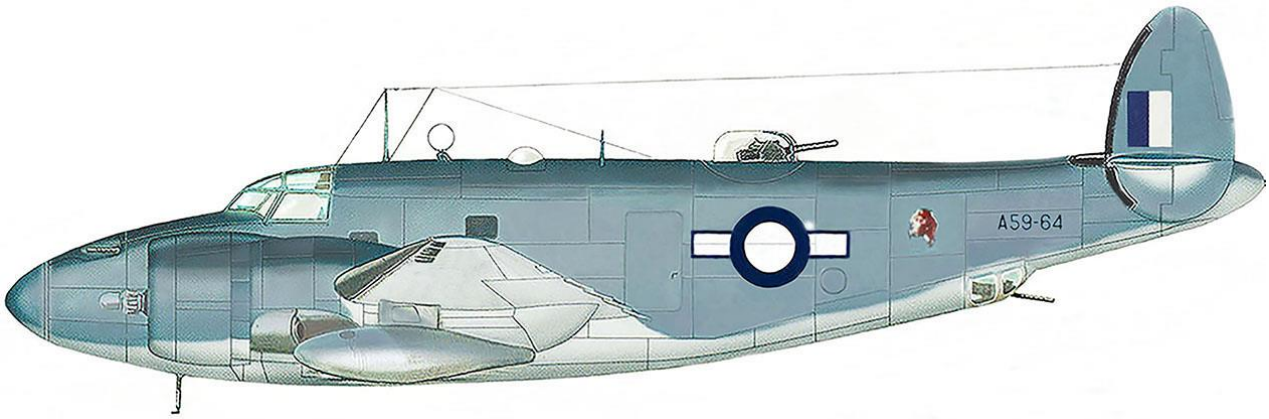
A59-64 PV-1 IN USN 4-COLOUR CAMOUFLAGE – APR 1944

A59-64 (Bu 48749) had been allotted to 13SQN in JAN 1944, and then to 32SQN, Camden, in MAR 1944. However, in APR 1944 RAAF Command decided not to proceed with re-arming 32SQN with Venturas – just as **A59-64 and A59-68** arrived at 32SQN on 12 APR 1944. There are no details of Venturas with 32SQN, as the allotment of A59-64 to 32SQN was cancelled that very same day the aeroplane had arrived at the squadron! Three days later, on 15 APR 1944, A59-64 was issued to 13SQN.[150] **A59-64 became SF-H** for the 13SQN move to Cooktown in JUN 1944.

[Colourised from Stanaway p.64]

PV-1 Ventura A59-64, with Disney spaniel *'Lady'* fuselage art, probably at Camden APR 1944

Before receipt on 13SQN, as codes not yet added, showing several departures from standard markings. This was one of the rare aircraft to retain original Disney artwork from Burbank to reach Australia; it featured the 'reversed' fin flashes (*Blue* leading) that may have been hurriedly and incorrectly applied in Hawaii before ferrying to 2AD on delivery; it had the 'bars' of the USN marking still applied with RAAF 3:5 roundel applied over the 'star'. The USN 40"-diameter cockade has been overpainted by a 40" 3:5 RAAF roundel, retaining the same size 'bars' – each were 20" long (half diameter of the roundel), 10" high (half radius).[151] This image shows no roundel under the ***port*** wing – from FEB 1943 the USN only had markings under the ***starboard*** wing.[152]



[Colourised from Stanaway p.64]

***Spaniel's incription reads* "Honest - I Tho't it was Hitler"**

The meaning of this is unclear – perhaps a reference to the dog making an indiscretion on someone's leg, much like the infamous '*Snifter*'. This was Disney artwork of a spaniel "Lady" added at Burbank, and this character ultimatley became '*Lady*', in the movie '*Lady and the Tramp*'.[153]

US 'star and bars', introduced on 14 AUG 1943

On the PV-1 the US fuselage star was 40" (101.6cm) diameter, located 72" (182.88cm) from stabilizer. On the mainplane the star was again 40" diameter, and 108" (274.32cm) from tip.[154] It appears in some images that sometimes the 'bars' were retained on RAAF Ventura wings (see A59-75).

A59-75 13SQN PV-1 SF-Q – OCT 1944

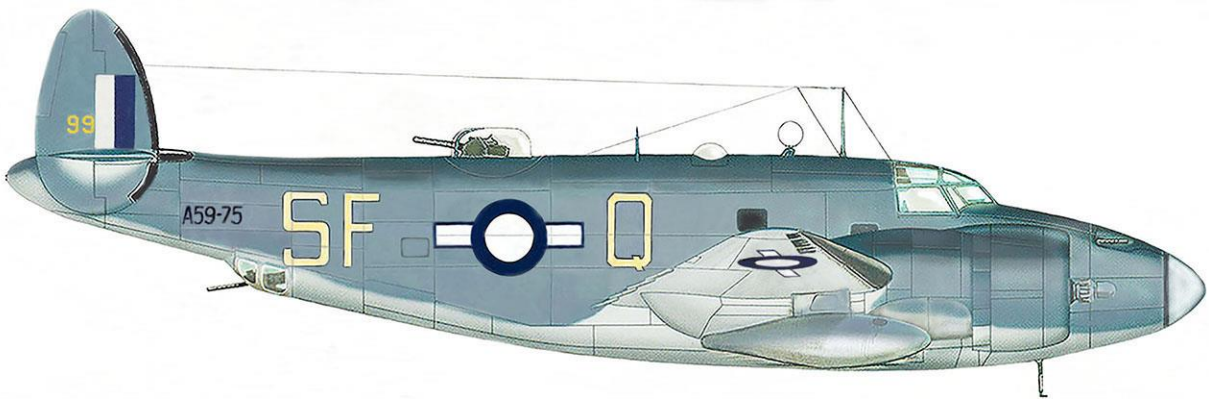
The RAAF adaptation of the **US 'star-bar'** PV-1 roundel is not documented, but was apparently applied to the 1944 delivered aircraft (serialled Bu48xxx and Bu49xxx, A59-6x and A59-7x), with probably a 3:5 40" RAAF roundel simply applied on arrival at 2AD over the 40" US star.[155] RNZAF aircraft did retain, or reapply, the *White* 'bars' on their aircraft before going into combat.[156] The USN PV-1 marking was 40" (101.6cm) fuselage diameter, placed 72" (182.9cm) from stabilizer; the wing roundel also 40" diameter, 108" (274.3cm) from the tip.[157]

[Colourised from RAAF image]

A59-75 SF-Q '99' (msn 6199) wheels up landing at Gove on 2 OCT 1944

40" roundels, roundel under starboard wing and above the port, narrow tall flash reversed, *Yellow* '99' msn on rudder. Interestingly, the silhouette of the APS-1 radar scanner can be seen through the translucent plexiglass nose cone.

[Colourised from RAAF image]



A59-75 – In MAY 1944, RAAF Cd planned re-equipping 32SQN as a second PV-1 squadron, which was soon changed to 7SQN based at Higgins. On 11 MAY, RAAFHQ advised that the number of Venturas expected to be available by late 1944 was only 53, insufficient for two full squadrons, so RAAF Cd agreed rearming one Flight of 7SQN, with a Flight continuing with Beauforts until further Venturas became available. This plan was to rearm 7SQN with 10 Venturas, estimated to be by approximately 1 JUN, with three identified: the first **A59-68** was received by 7SQN on 2 JUN, the second **A59-70** the following day. The third aircraft, **A59-75**, received minor damage enroute and was diverted to 13ARD at Breddan (Charters Towers) on 31 MAY for repairs, after which it was to be forwarded to 7SQN. By 7 JUN NEA HQ Headquarters confirmed that 7SQN would now consist of one Flight of nine Venturas and the establishment altered to provide for 'A' FLT with Beauforts and 'B' FLT with Venturas. However, the next day RAAF HQ confirmed that 7SQN was to revert to an all-Beaufort unit because the US could not supply sufficient Venturas, and those allocated were required as wastage replacements for 13SQN. By 26 JUN, A59-68 and A59-70 were flown to 13ARD joining **A59-75**. Six other Venturas were allotted to 7SQN but their delivery was cancelled before being received.[158]

A59-85 13SQN PV-1 SF-R *"The Reluctant Dragon"* – NOV 1944

A59-85 still the 'reversed' fin flash with *Blue* leading, no turret, patchy paint on rear fuselage, and by NOV 1944 the fuselage and wing roundels had changed to the new standard of 2:5 proportions. 13SQN code letters were still outlined thinly in *Black*, and apparently still in *Yellow,* and serial number was *Black*, consistent with most Venturas.

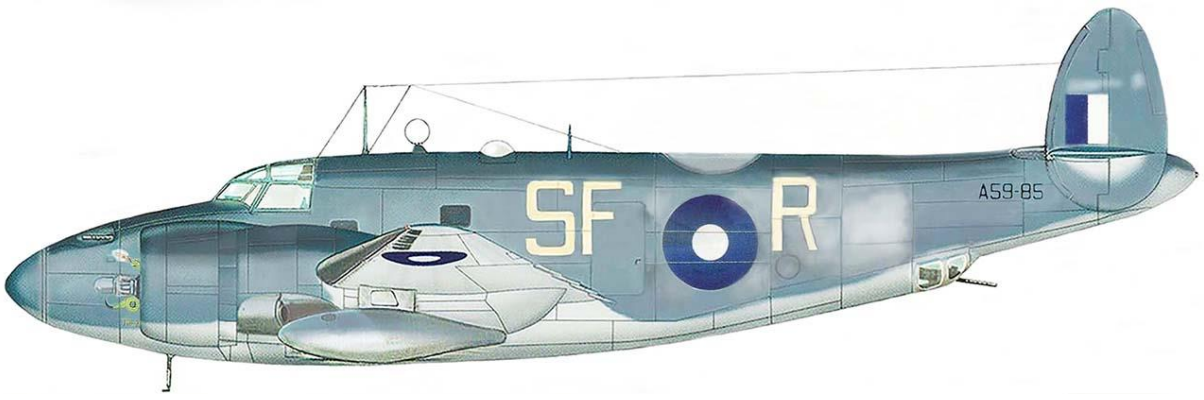
[Colourised from adf-serials]

[Colourised from RAAF image]

"The Reluctant Dragon", without turret, named from a 1941 Disney movie, but a different character to the peace-loving dragon, and so this artwork is unlikely to have come from the Burbank studios. The colouring of the dragon is described by Ian Baker in *AHCB 79*:[159] "He was green with black outlining and details, with white claws, blowing red flames and white smoke." *The Classic Warbirds* interpretation gives some *Yellow* and *White* detailing of scales on the dragon's *Green* body.[160] These sources omit, as shown in the AWM image, that the fire-breathing dragon is **holding two bombs**! Lettering, below, is assessed as *Yellow*.

[AWM P00590.006]

A transposition of the colourised nose art



A59-89 13SQN PV-1 SF-V – 1945

A59-89 was one of the few overall *Foliage Green* PV-1s, and possibly the only on 13SQN. The AGI of 26 MAY 1944 *Appendix C* stipulated overall *Foliage Green* for attack aircraft and GR/B, with *'Identification Markings'* – the serial number and aircraft code letters – in *Medium Sea Grey*, which is shown here, and not the 13SQN *Yellow* codes.[161] National Markings are small 2:5 roundels and a tall narrow 'reversed' fin flash. The port side nose art appears to be a Pluto-style dog's head in *Yellow* with *Red* tongue (referenced to *Southern Sky Decals sheet DK72047*).

[Colourised from AWM P00590.005]

13SQN A59-89 SF-V at Gove in mid-1945, in overall *Foliage Green* after the MAY 1944 AGI

A59-89 was originally one of the PV-1s allotted to 7SQN in MAY 1944, but this was soon cancelled, and stored with 2AD and it is probable this was the stage it was repainted from USN delivery colours to *Foliage Green* – but very strange that an AD would mark the wrong 'reversed' fin flash. A59-89 served then at Point Cook with CFS from OCT 1944 until MAR 1945, being received by **13SQN in JUN 1945**, serving until 2AD storage in JAN 1946 – and going the way of most Venturas, being scrapped in 1948.[162]

A46-11 and A59-89 at CFS Point Cook 6 FEB 1945, visit of Duke of Gloucester *[Colourised from AWM VIC 0100]*

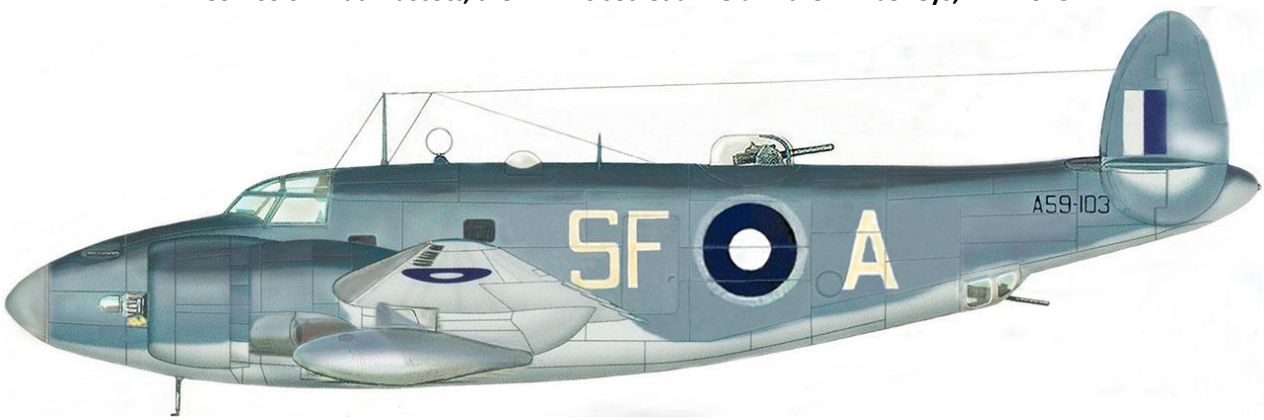
At CFS Point Cook, A59-89 carried the small 2:5 roundel and 'reversed' fin flash – it is hard to imagine this was applied by 2AD !

A59-103 13SQN PV-1 SF-A *"Ye Boss"* – APR 1945

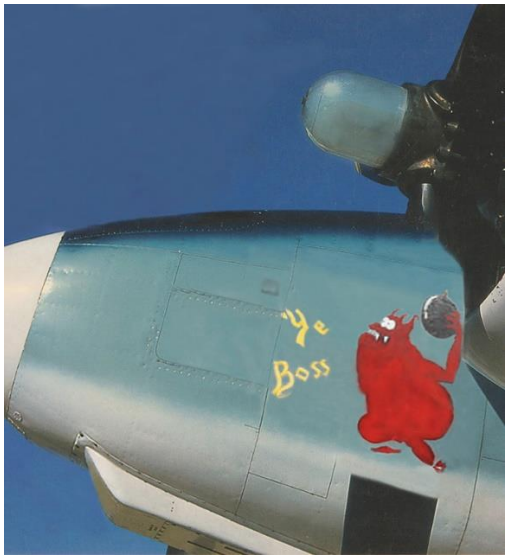
A59-103 SF-A was the CO's aircraft in 1945, serving on 13SQN over JAN-MAY 1945. After work by 14ARD at Gorrie, A59-103 returned to 13SQN in AUG, until its long-term storage at 2AD from JAN 1946, the scrapping in 1948.

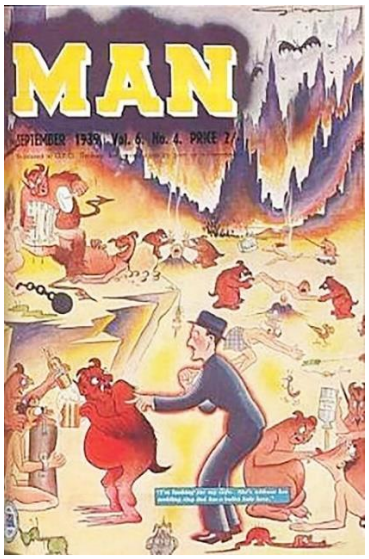
[Colourised from adf-serials image]

A59-103 SF-A at Truscott, the RAAF's secret airfield in the Kimberleys, APR 1945



Delivered in standard USN *'four-colour non-specular'* camouflage, the 1944 style 2:5 roundel was applied but with overspray marks below, and probably *Yellow* codes. The fin flashes are correct (i.e. with *White* leading), but now only on the outer fin sides, and *White* spray marks on the rudder. The rubber leading edge de-icer boots have been removed. Unfortunately, as with much of the Ventura imagery, the *red devil 'Ye Boss'* port nose art is not visible, typically hidden behind the port engine. Below are some images to discuss this artwork, and the actual monochrome photograph has been colourised as *Red* and transposed onto the nose of a restored PV-1.





[AHMWA P004627 via Shep] For this article, the marking transposed onto a warbird *[MAN magazine SEP 1939 cover]*

A59-103 SF-A *"Ye Boss"* devil 1945 – with the inspiration from wartime MAN magazine

The colours for this nose art have been referenced to *Southern Sky Decals sheet DK72047*. A similar "*Ye Boss*" devil has also been seen in the Vengeance article, on 12SQN NH-A A27-200.

13SQN VENTURA SEXY LADIES – 1944

Because of the way Ventura nose art is often hidden behind the port engine and as a trial for illustrating nose art, here are examples of the actual monochrome photographs colourised and transposed onto the nose of a restored PV-1. Note that the bottom propeller blade has had to be partly removed to show the illustrations.

[warbirdsonline]

A59-72 *"Southern Job"*

Colouring of the monochrome nose art has used the *Southern Sky Decals sheet DK72047* as a reference.

[AWM P00590.004]

A59-81 *"Wiff Oh"*

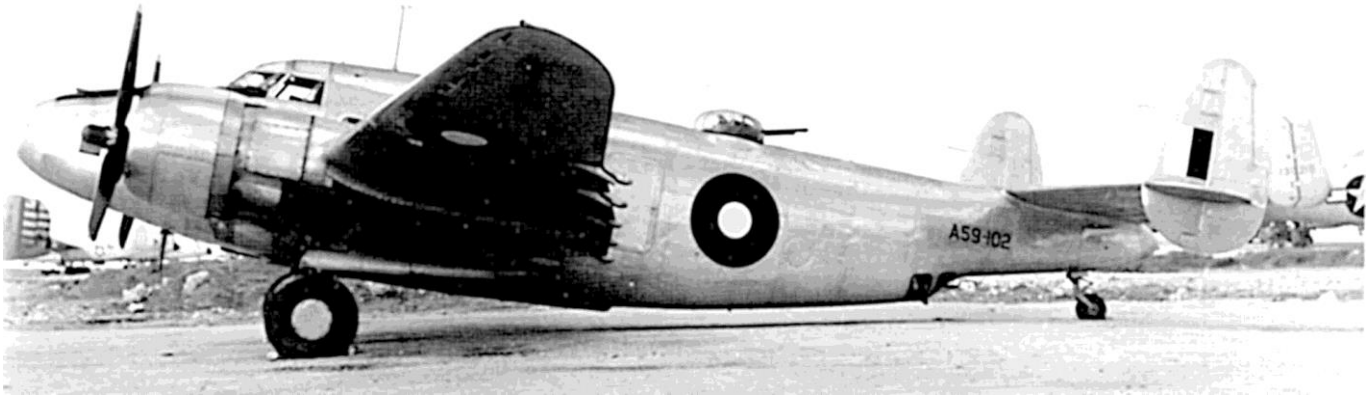
In addition, an unidentified 13SQN PV-1 was marked with the name *"Shanghai Lil",* which came from a James Cagney movie poster of that time.

[RAAF image] *[wartime movie poster]*

"Shanghai Lil"

***"Shanghai Lil"* here in 1945 parked beside '67' on rudder (msn 6367) A59-104** *Yellow* colour of nose art is estimated

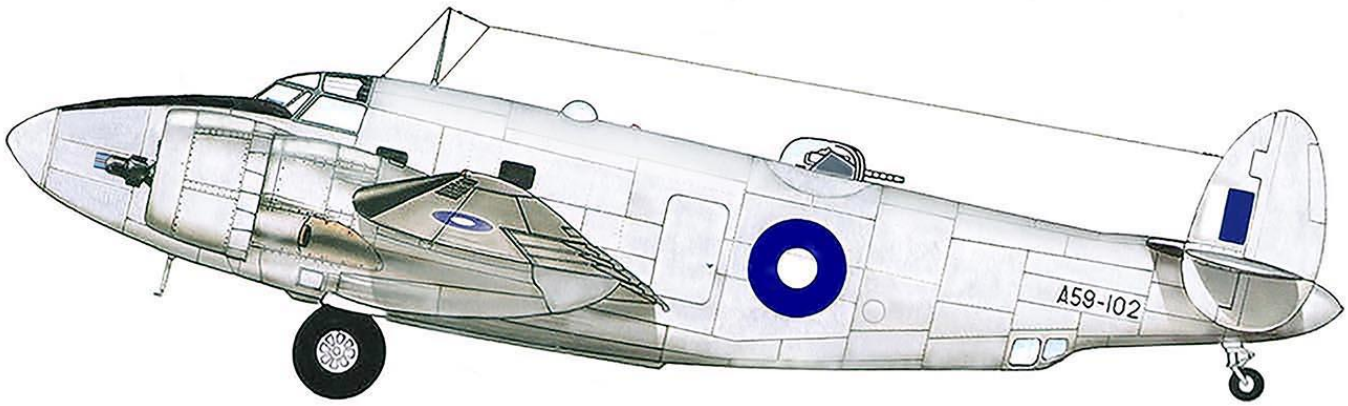
A59-102 – 4CU VENTURA STRIPPED TO SILVER TRANSPORT 1944-1946

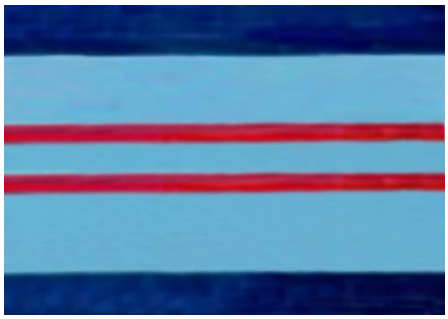


[adf-serials image]

PV-1 Ventura A59-102 at Iwo Jima as a VIP transport in JUL 1945

A59-102 (ADAT registration VH-RGW) became the VIP transport with 4CU for AOC RAAF Command (AVM Bostock) over late 1944 into 1946, replacing the earlier Hudson A16-55 of 4CU (in use from 1943 as VM-B), with its VIP seating removed for fitting to the Ventura.[163] Markings over 1944-1945 show the 2:5 *Blue/White* roundels and of course *Black* serials as required for natural metal aircraft. Just visible in the image behind the spinner is the AVM's pennant on the port nose (and an image below also marked on the starboard).



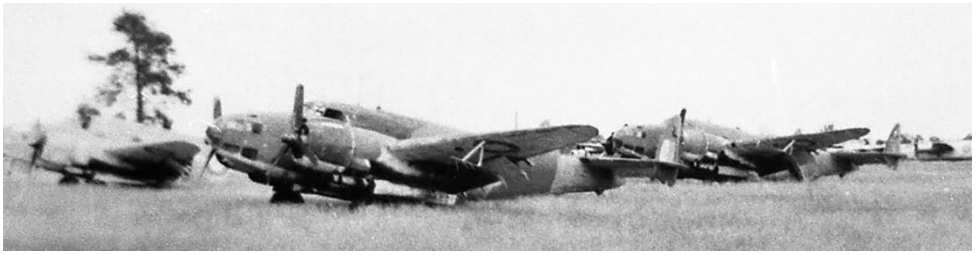


Starboard nose A59-102 *[Colourised from GRB Coll],* **with the VIP 2-star Air Vice-Marshal pennant for the AOC**

No 4 Communication Flight (4CF) was formed at Archerfield on 7 SEP 1942, and renamed No 4 Communication Unit (4CU) on 25 NOV 1943. The Unit disbanded on 16 APR 1946. Aircraft types operated were Anson, Tiger Moth, Norseman, Vengeance, Wirraway, Kittyhawk, Hudson, Ventura, Beaufort, 'Beaufreighter' and Beaufighter. 4CU operated two Venturas, A59-86 and A59-102.[164] In SEP 1945 **A59-102** went to 2AD for major modifications, and returned to 4CU in NOV 1945 without guns, and the turret removed.

DISPOSALS AND SURVIVORS

With Peace, thousands of aircraft were retained in "War Storage" – totalling over 3,000 aircraft up to the end of 1948, including 52 Venturas.[165] Ten of the RB-34s were stored at 2AD Richmond; at least five at 1AD Det Tocumwal.



[adf-serials]

Three RB-34s, several with ASV, at Tocumwal – these could include A59-2, A59-6, A59-13, A59-16 or A59-17

Most PV-1s went for long-term storage at 2AD Richmond, shown below – *Adastron site* assesses this to total 39.

[RAAF image]

Venturas out to graze 2AD Richmond c1947

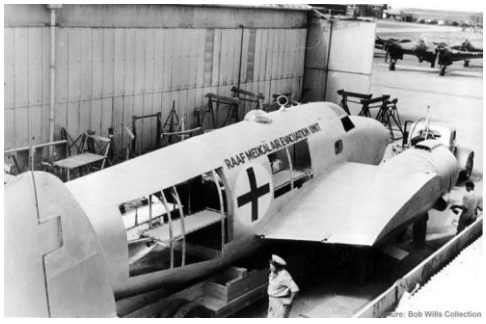
SF-H in the foreground is **A59-64** *"Lady"*, which went to 2AD storage from 13SQN in FEB 1946, and passed for scrapping in 1948.

One of the PV-1s slated for scrapping at Laverton was **A59-90**, which underwent trials on methods to extract crew from a crashed aircraft.[166] On 13 APR 1948, two Venturas (A59-63 and A59-90) were issued free of charge to the DCA for training purposes. Both departed Laverton by road on 15 OCT 1948, and the 'training' turned out to be for the development of a new Rescue and Fire Fighting tender, which came to be known as the *Monegeetta Monster*.[167]

[John Hopton image via Ron Cuskelly]

A59-90 at Monegeetta army camp for crew evacuation trials, c1948

Another unusual fate was that of a Ventura modified as a RAAF 'Medical Air Evacuation' ambulance display. The aircraft is assessed as **A59-61** which was in storage at 1CRD Werribee, and transported from Werribee to Point Lonsdale on 13 JAN 1947. Last recorded sighting was in 1956, after which it was probably scrapped.[168]



[adf-serials]

[adastron site]

The modified Ventura ambulance, at 1AD Laverton 1945…surviving at Point Lonsdale with the lighthouse keeper, here 1956

EX-RAAF PV-1 A59-96 AT QAM CALOUNDRA

PV-1 **A59-96**, msn 6371 Bu49555, survives with the Queensland Air Museum (QAM) at Caloundra. Received at 2AD in JUN 1944 and immediately stored by 2AP at Bankstown, it moved to 2AD Care and Maintenance at Evans Head – its continual storage accounting for its longevity and survival. Typical of retired Venturas in 'Cat E' long-term storage, in 1948 A59-96 was passed to DAP at Evans Head, which recorded disposal completed on 5 MAR 1949.[169]

[adf-serials images]

A59-96 awaiting restoration at QAM in 2002 **A59-96 at Caloundra in 2004**

From 1949 as a backyard play house in Brunswick Heads NSW and then as a shed, the fuselage was acquired in 1978 for removal to Chewing Gum Field Air Museum, Tallebudgera QLD – fortunately ultimately to the hands of QAM at Caloundra QLD in 1991.

[QAM site images]

A milestone, on its own wheels in FEB 2006…. **And in 2015 with both engines installed**

A59-96 was trucked from Tallebudgera to Caloundra in MAY 1991, consisting of just of the gutted fuselage, the long-term restoration commenced.[170] Displayed early in this process as USN 49555 on the port side, and A59-96 on the starboard, the fuselage was fitted over 2014-2015 with Lockheed L18 Lodestar wings acquired from the US.[171]

Moved into QAM Hangar 2 in JUN 2017, here on display in 2018 *[adf-serials images]*

QAM has done a beautiful restoration of the interior *[adf-serials images]*

EX-RAAF PV-1 A59-73 AT GOVE

PV-1 **A59-73,** msn 6142 Bu48906, was received in MAR 1944, not being received by 13SQN until JUN 1945, becoming SF-F, but in AUG 1945 was damaged by fire during maintenance, and subsequently abandoned at Gove as 13SQN moved north to Labuan.[172] In the hands of 8CRD, approval was granted for conversion to components. Being abandoned for many years, in APR 1995 the fuselage and centresection was trucked to RAAF Darwin for restoration by 13SQN reservists, but the condition was determined as beyond restoration, and was eventually trucked back to Gove in OCT 2012**.** The bare metal fuselage remains in a compound at Gove/Nhulunbuy airport.[173]

[adf-serials images]

A59-73 has been in the compound at Gove/Nhulunbuy airport since OCT 2012

PV-1 "A59-67 / SF-F" – Bu33379

"A59-67 / SF-F" was not a RAAF Ventura, having served with the **RCAF as 2221**, and acquired in 1988 as a flying example for the RAAF Museum. PV-1, **msn 237-5378 Bu33379,** was SOC in Canada in AUG 1950, and passed through a succession of owners in the US as N1590V, a civilian executive conversion by Spartan Aircraft Co of Tulsa OK, and then from 1964 as N159V. In SEP 1986 it commenced conversion to military configuration by Aero Nostalgia at Stockton CA for the RAAFM, in exchange for Canberra A84-229. In NOV 1987, it completed its first post-restoration test flight as "A69-67 / SF-F", then over JUN/JUL 1988 was ferried via Oakland, Honolulu, Majuro, Tarawa, Honiara, arriving in Brisbane on 12 JUL 1988.

[RAAFM]

RAAFM VH-SFF near Point Cook

[warbirdsonline]

Good looking "*Wiff Oh*" nose art on the RAAFM VH-SFF

Registered VH-SFF with the RAAF Museum, Point Cook, this Ventura operated in 13SQN markings with assumed serial "A59-67 coded SF-F", named *"Wiff-Oh"*. The original *"Wiff-Oh"* was actually A59-81 SF-D, but a WWII image was taken ***from*** A59-67 and the nose art name was incorrectly assumed to have applied to A59-67. On 19 NOV 1996, VH-SFF belly landed in a field after double engine failure during an air show at RAAF Richmond, and subsequently recovered back to Point Cook for static restoration. On 18 JUN 2002 it was struck off the Register as withdrawn from use, and stored pending a planned rebuild for static display.[174] While it is unlikely we will see "SF-F" airborne again, hopefully it will be seen on static display at the Museum.

EX-RNZAF RB-34 NZ4600 – MOTAT AUCKLAND

RB-34 msn 4773 41-38117, to RNZAF as **NZ4600** in JUN 1943 is now the sole surviving ex-RNZAF Ventura and is on display at the Museum of Transport & Technology in Auckland.[175] SOC NOV 1947, held on a farm 1947-1971, and then to MOTAT for static restoration, using some components of NZ4522.[176]

RB-34 NZ4600 msn 137-4773, Auckland FEB 2009 *[airliners.net]*

NZ4600 at MOTAT, Auckland 1980 *[1000aircraftphotos]*

EX-SAAF PV-1 VENTURAS IN SOUTH AFRICA

There are three ex-SAAF PV-1s that have survived. Of interest are the many detailed closeup images of these at http://www.wildaviation.com/gallery3/index.php/Walkarounds/saafprops/Ventura:

- **6447**/'V' msn 5855 Bu34965 at SAAF Museum Ysterplaat AB, Cape Town, since 1988;
- **6534** msn 6011 Bu48775 at Fort Klapperkop Military Museum (a restored fort in Pretoria), that has also been displayed as '6583' and '6453'; and
- **6432**/'F' msn 5649 Bu34759 at the MOTH Shellhole compound at Lynnwood, Johannesburg ("MOTH" is the veterans' 'Memorable Order of Tin Hats').

Left 6447/ 'V' at SAAF Museum Cape Town; right 6432 / 'F' at Shellhole Johannesburg *[Wildaviation images]*

EX-USAAF RB-34A VENTURA AS "PV-1 S.B.88" AT ORLANDO

RB-34A 41-38032 (marked now as USN "PV-1 S.B.88"), msn 137-4688, went to Cuban AF (as FAEC 215) in AUG 1947 until 1951 – note this s/n was close to RAAF RB-34 **A59-1 (41-38051)**. In 1958 it was converted to a civil Howard 350 'Super Ventura' as N1527V and N1000X, then to open storage at Fort Lauderdale Florida over 1982-93. It was then restored as a PV-1 for USN display at the Sanford Airport Memorial Park FL in 1994, current as "S.B.88".[177]

RB-34A 41-38032 as "PV-1 S.B.88" at Florida's Orlando Sanford Int Airport *[Warbirds online image]*

Lockheed Vega Ventura

> "The RAF despised the Ventura because it was slow, unmaneuverable and inadequately armed. The USN began to use the Ventura just about the time that the RAF was giving it up, and found the patrol bomber speedy, agile and adaptable to heavy armament. Some of the Navy pilots jokingly suggested that the RAF and US Army crews proved the superiority of USN training when the Navy took up the Ventura, designating it the PV-1 and demonstrated its true potential." [178]

Thanks to Shep for his assistance with images and the 13SQN codes, and images from Gordy's *adf-Serials* Contributors' Collection, and also to Ron Cuskelly's *The Lockheed File:* VENTURA - The Lockheed File (adastron.com)
Particularly useful, too, is the ww2bombers site: Lockheed Ventura (e-monsite.com)

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Notes Regarding No. 13 Squadron PV-1s

Garry Shepherdson

The association of certain individual identification letters to certain serial numbers is only proven (I believe) for the period September 1944 to March 1945. Number 13 Squadron's A51s from April through to July 1945 are missing and their A51 for August 1945 is incomplete. A51s for the months of April and May 1945, would have been crucial for confirming a number of associations for aircraft for which operational records exist; the lack then of operational AND administrative information from June to August 1945 means that a large number of other tie-ups are similarly missing. It seems likely that a large number of code letter assignments changed during the April to July 1945 period and without operational or administrative records, those assignments remain unknown – unless, as in a few isolated cases, some other form of verifiable evidence is available.

The situation in so far as I can tell at the moment can be tabulated thus:[179]

SF-	Cooktown	NWA Sep-Dec 1944	NWA Jan-Mar 1945	NWA Apr-Jun 1945	1st TAF
A	81	81	103	(103)	
B	79	79	79	(79) / (101)	101 [doc]
C			86 /		
D	77	77	(81) [JB]	(81) [JB]	(81) [JB]
E	76	76	76	(76)	
F	72	72	72	(73)	73 [doc] / 72 [doc]
G	69	69	/ 86		
H	64	64	64	(64)	
I					
J	78	78	78	(78)	
K		/ 67	67 /		99 [doc]
L			68	(68)	
M			99	(99)	
N		/ 84	84		
O	60	60	60 /	67 [phot]	67 [doc]
P	67	67 / 59	59 / 75	(75)	(75) /
Q		75 / 71	71	(71)	71 [doc]
R	83	83 / 85	85	85 [phot]	85 [phot]
S	57	57		104 [phot]	
T	56	56	56/	(98)	98 [doc]
U	62	(62)	(62)	(62)	
V	63	63			89 [phot]
W	53	84 / 53	53	(53)	
X	61	61	61	(61)	
Y	66	70	70		
Z	65	65	65	(65)	65 [doc/phot]
none					
unconf			63 / 77	63 / 69 / 70 / 77 86 / 89 / 95	64 / 68 / 69 / 70 76 / 77 / 78 / 86 95 / 100 / 103

Here is a tabular analysis of the accuracy of the identification letter to serial number associations for each of 13SQN's PV-1 Ventura's in NWA for which an identification has been made for the period September 1944 to the end of March 1945.

Accuracy equals "Tasked and Recorded" divided by the sum of "Tasked and Recorded", "Tasked but Not Recorded" and "Not Tasked but Recorded", multiplied by 100.

Serial	Letters	Tasked	Known Cancellations	Tasked and Recorded in A51 as Flying	Tasked but Not Recorded (Apparently replaced by...)	Not Tasked but Recorded (Apparently replaced...)	Accuracy (%)
A59-53	SF-W	26	1	23	2	1	88.5
A59-56	SF-T	13	0	11	2	0	84.6
A59-57	SF-S	11	1	10	0	3	76.9
A59-59	SF-P	9	0	6	3	0	66.6
A59-60	SF-O	16	2	14	2	3	73.7
A59-61	SF-X	21	1	18	2	0	90.0
A59-62	[SF-U]	0	0	0	0	0	0
A59-63	SF-V	12	0	11	1	0	91.6
A59-64	SF-H	15	1	13	1	2	81.2
A59-65	SF-Z	31	3	24	3	2	82.7
A59-67	SF-P	9	1	8	0	1	88.8
	SF-K	12	1	10	1	1	83.3
	SF-O						[photo]
A59-68	SF-L	21	0	20	1	0	95.2
A59-69	SF-G	11	0	11	0	0	100
A59-70	SF-Y	26	1	23	2	3	82.1
A59-71	SF-Q	24	0	21	3	0	87.5
A59-72	SF-F	25	1	24	0	2	92.3
A59-75	SF-Q	1	0	1	0	0	100
	SF-P	2	0	2	0	0	100
A59-76	SF-E	41	4	35	2	1	92.1
A59-77	SF-D	21	0	20	1	0	95.2
A59-78	SF-J	36	2	33	1	1	94.3
A59-79	SF-B	37	2	35	0	1	97.2
A59-81	SF-A	8	1	7	0	0	100
A59-83	SF-R	13	0	12	1	1	85.7
A59-84	SF-W	5	0	5	0	0	100
	SF-N	24	1	22	1	2	88.0
A59-85	SF-R	32	1	31	0	2	93.9
A59-86	SF-C	3	0	3	0	0	100
	SF-G						[Watch Log]
A59-99	SF-M	1	0	1	0	0	100
A59-103	SF-A	6	0	6	0	0	100
A59-104	SF-S						[photo]

Of the 30 individual identities supported by operational information, the highest accuracy figure recorded was 100% on 8 occasions. The lowest accuracy figure recorded was 66.6% for one aircraft (a photograph of which exists proving the association). The "0" return was for an aircraft for which no operational information was available. Percentage returns in the 90's accounted for 9 of the identities, 10 returned an accuracy percentage figure in the 80's and 2 in the 70's. In addition, 2 further identities were provided by clear photographic evidence and 1 from a sequence of Watch Log entries. Like the 66% return, one of those 70% returns (for example), A59-60, for which the evidence collected showed an accuracy figure of 73.7%, is confirmed by photographic evidence as being entirely correct – validating that these figures are higher than attributable to chance. The "0" return was for A59-62 which deployed to NWA but was not used on operations.

Aircraft such as A59-63 are highly likely to have had an alternative identification letter allocated after returning to the Squadron from a period of maintenance, but such an allocation is impossible to verify without some other form of irrefutable evidence – such as a period identifiable photograph. Other aircraft would, no doubt, fall into this category.

For the period April and May 1945, since there is no A51 to corroborate activities, the following unverified entries are offered.

Serial	Letters	Tasked	Known Cancellations	Tasked and Recorded in A51 as Flying	Tasked but Not Recorded (Apparently replaced by...)	Not Tasked but Recorded (Apparently replaced...)	Accuracy (%)
A59-53	SF-W	1	0	[no A51]	0	0	
A59-61	SF-X	5	0		0	0	
A59-64	SF-H	7	0		0	0	
A59-65	SF-Z	4	0		0	0	[photo]
A59-67	SF-O						[photo]
A59-68	SF-L	7	1		0	0	
A59-69							
A59-70							
A59-71	SF-Q	6	1		0	0	
A59-72							
A59-75	SF-P	11	2		0	0	
A59-76	SF-E	3	0		0	0	
A59-77							
A59-78	SF-J	4	0		0	0	
A59-79	SF-B	7	0		0	0	
A59-81	[SF-D]						[JB]
A59-85	SF-R	6	0		0	0	[photo]
A59-86	SF-G						[Watch Log]
A59-98	SF-T	4	1				
A59-99	SF-M	5	1		0	0	
	SF-K	10	1		0	0	[Narr Rep]
A59-103	SF-A	7	2		0	0	
A59-104	SF-S	5	0		0	0	[photo]

For A59-53/SF-W, the sole listed operation recorded in this table, whilst unsupported by unit records, followed on from a continuous period of service and there is no reason to suspect that the aircraft had been re-coded. A59-61, -68, -71, -76, -78 and -103 are in the same category. A59-64, -65, -75, -79, -85 and -99 similarly have operational information that cannot be verified by unit records however, a Narrative Report for each of them during the "null" period (April/May 1945), confirms their historical code letter allocation – at least up to that point. Photographic evidence shows that A59-65 retained its allocated letter "Z" and A59-85 retained its letter "R" until after returning to Australia after war's end. The situation for the others, though, isn't known.

Photographic evidence shows that A59-67 became "SF-O" after returning to the Squadron at the end of May 1945. There is always the possibility that it may have received yet another identification letter prior to the end of its service.

A59-69, -70, -77 and -81[180] are known to have returned to the Squadron during or after April/May 45 but, due to the chronological limitations of the primary source operational documentation used as the basis for this research and without further evidence, no alternative identification letter allocation is known. A59-95 joined the Squadron during that period, and, for the same reasons, its individual letter isn't known.[181]

A59-98 was recorded as joining 13SQN at the same time as A59-95 but it's identification in later Narrative Reports offers a code letter association for it (see below) and this may support the earlier allocation of that letter (in the above table) which otherwise would have merely been assumed.[182]

A59-86/SF-C was evidently re-coded (to "SF-G") whilst still serving with the Squadron; the change occurring within a few weeks of its arrival.[183] The alteration from "C" to "G" being a relatively simple change and perhaps was ordered to correct the use of one of the forbidden letters. It went to 13ARD for a month during May, 1945 (returning to 13SQN on 2nd June) and may also have been allocated yet another letter.[184]

During the April/May 1945 period, my research captured information for three aircraft that, without unit records or photographic evidence, a serial number wasn't able to be correlated.

Serial	Letters	Tasked	Known Cancellations	Tasked and Recorded in A51 as Flying	Tasked but Not Recorded (Apparently replaced by...)	Not Tasked but Recorded (Apparently replaced...)	Accuracy (%)
	SF-K	10	1		0	0	
	SF-Y	7	0		0	0	
[A59-81]	SF-D	8	2		0	1	

A59-99 was SF-M in February 1945 and apparently became SF-K at some point after that and it is assumed (rightly or wrongly) that it was still "SF-M" during April/May 1945. This assumption has been based on the simple fact that the aircraft hadn't been recorded as having left the Squadron between February and the April/May period – however, an "in squadron" re-coding is of course a possibility and evidently not all that uncommon indeed, this aircraft *was* re-coded at some point without leaving the Squadron, it's just a matter of when. If it hadn't yet been re-coded, the listing in the table, above, for "SF-K" is unlikely to be A59-99 due to the recorded taskings clashing with "SF-M". Either: A59-99 was still "SF-M" during the April/May 1945 period and the serial for "SF-K" during that period is unknown or, A59-99 had been re-coded as "SF-K" at some point between February and April 1945 and the new "SF-M" belongs to an as yet unknown serial number (see later). Given the two Narrative Report quotes (see below), A59-99 *was* "SF-K" by July 1945 without a recorded break from the Squadron.

The following aircraft served with 13SQN during 1945, but no identification letter association has been determined:
A59-95 (06APR-27MAY45; 30JUL45-08JAN46), and
A59-100 (16JUL-10OCT45)

An additional aircraft, A59-89, appears in an AWM photograph (see below) which shows the aircraft on the ground at (I believe) Gove wearing overall Foliage Green camouflage. The individual letter and the serial number are both clearly visible.

Proof that A59-89 was coded "V", at least when the photograph was taken. [*AWM image P00590.005*].

The trouble, though, is that the actual date of the photograph isn't known and could be during any of the three periods that the aircraft served with the Squadron (23JUN-11JUL45; 09AUG-05OCT45; (DEC45)-08JAN46); although the aircraft appears to have its nose armament in place which might suggest that the image was taken prior to the cessation of

hostilities. The photograph only shows us that it was "V" at the time of the image and alternative code letter allocations are always possible. A review of this machines aircraft status card though shows that its first period with the Squadron ended with it being sent to 14ARD to repair some bullet holes, it was quickly noted as being on re-issue to the Squadron (although it took some time before it was actually delivered) which would usually suggest no change in letter. The second period ended when it was sent to 1RSU for a double engine change – again it being plausible that it would have retained its letter. However, 13SQN didn't seem to mind changing individual letters on machines whilst actively serving with the Squadron so, what would ordinarily have been a fairly comfortable suggestion that A59-89 was "SF-V" throughout its 13SQN service, isn't. The fact that it was in Foliage Green, I think, is merely because it had been a CFS machine for some time and I think that it is entirely plausible that, being a southern machine, it was required to be finished in the officially approved scheme of the day – overall Foliage Green. Operational units, at least in NWA, seemingly being granted a bit more latitude in determining the appropriateness of their camouflage.

Copies of six Narrative Reports (five from July 1945 and one from August 1945) provide some additional detail.

Form A123 Serial 46292 Report 7/1, for GOV14/8 Jul quotes: A59-99/ SF-K, A59-73/SF-F,[185]
A123 Serial 46292 Report 7/2 for GOV15/8 Jul quotes: A59-98/SF-T, A59-67/SF-O,[186]
A123 Serial 46294 Report 7/3 for GOV16/10 Jul quotes: A59-65/SF-Z, A59-67/SF-O,[187]
A123 Serial 46294 Report 7/4 for GOV17/10 Jul quotes: A59-101/SF-B, A59-71/SF-Q,[188]
A123 Serial 46294 Report 7/5 for GOV18/10 Jul quotes: A59-73/SF-F, A59-99/SF-K,[189] and
A123 Serial (not quoted) Report 8/1 for GOV19/02 Aug quotes: A59-72/SF-F.[190]

The recording of A59-65 as "SF-Z" matches previous evidence,
A59-67/SF-O matches photographic evidence,
A59-71/SF-Q matches previous evidence,
A59-72/SF-F matches previous evidence; re-joined 13SQN 05JUL45 and seems to have retained letter,
A59-73/SF-F possible duplicate letter; joined 13SQN 11JUN45 and set aside due to survey by September,
A59-98/SF-T fits with previously disassociated evidence,
A59-99/SF-K fits with previously disassociated evidence, and
A59-101/SF-B conveniently suggests an association for that gap.

With regard to A59-73 and the possible duplication of the letter "F" with A59-72 – *if* this was the case, such and error did have some precedence in the Squadron. One of the original PV-1s with 13SQN, A59-53, was coded "SF-W" and seems to have retained that letter for the entirety of its service with the Squadron. However, when it went to 14ARD for maintenance at the end of September, 1944,[191] a replacement aircraft, A59-84, was received on 25OCT and was allocated the absent but not vacant letter, "W".[192] A59-53 was returned to 13SQN on 10NOV. Both aircraft were slated to fly on operations the next day, A59-53 still as "W" and A59-84 with the new allocation, "N" – which it retained for the remainder of its service. The issue with regard to "SF-K" and "SF-M" during the April/May period might be another example. A59-99 was "M" and is known (as noted above) to have become "K". A59-77 was "SF-D" but some other sources claim that it was (later) "SF-M". Whilst it might actually have been (I'm not saying it wasn't), those sources don't supply any evidence to prove their claim. A particular image is often used (AWM P00590.004) to support the claim. However, whilst the image does indeed show a PV-1 with the codes "SF-M", it doesn't show the serial number.

The following aircraft served with 13SQN prior to its move to NWA but did not serve in that area and therefore fall outside the scope of this research:

A59-51,
A59-52,
A59-54 (accident 22NOV43, c-c),
A59-55 (accident 07DEC43, c-c),
A59-58 (accident 01JAN44, dbr), and
A59-66 (crashed 21AUG44)

Whilst the six aircraft in the above list fell outside the scope of my code letter to serial number research, it is known that A59-66 was "SF-Y" at the time of its demise (see also "Cooktown" column of the table at the start of this article.

The following aircraft did not serve with 13SQN:

A59-50,
A59-74,
A59-80, A59-82,
A59-87, A59-88,
A59-90 to A59-94 inclusive,
A59-96, A59-97, and
A59-102.

I have been aware of a very good and informative web site run by Ron Cuskelly (www.adastron.com) for some time and am aware of his pages therein regarding the Lockheed Ventura in RAAF service. One of the features of his Ventura pages is a list of those PV-1 aircraft operated by 13SQN with individual identification letters, names, dates on, dates off, etc.

Those of you with an interest will no doubt compare his listing with those that appear here and will note that not all of what Ron has listed (in terms of code letters) is corroborated here. I think that this article corrects the order of some of his listings (for example, A59-67 was "K" before "O" (and the "F" should probably be a "P") and A59-86 was "C" before "G") and perhaps fills in a gap or two. However, it will be noticed that his listing does contain a number of additional code letter allocations (for example his list adds "U" to A59-61, "T" to -62, "R" to -65, "W" to -69, etc and provides two code letters for A59-95). I'm am certainly NOT suggesting that there is any sort of error with his work, I'd just like to point out that during the course of my own research, I wasn't able to find the same result in those cases – bear in mind, though, the previously stated chronological limitations of my work.

Select Bibliography

Primary Sources
Aircraft Status Cards – Ventura A59-1 to A59-20, A59-50 to A59-104; NAA: A10297, BLOCK 376.
North Western Area Controller's Log; AWM66, 15/5/2.
RAAF Squadron Narrative Reports – 11, 12 and 15 Squadrons; NAA: A9652, BOX 13.
RAAF Unit History Sheets Number 13 Squadron Jun 40 – Dec 45; NAA: A9186, 35.

Secondary Sources
IPMS New South Wales, *In Miniature, the magazine of IPMS New South Wales*, Vol 18/3 (2004).
IPMS New South Wales, *In Miniature, the magazine of IPMS New South Wales*, Vol 18/4 (2004).
http://www.adastron.com/lockheed/ventura/13sqn.

Former RAAF Aerodromes along or near the Stuart Highway

Part 6, Daly Waters Region

Garry Shepherdson

This will be a fairly short edition and one without the usual area diagram since these airfields/proposals fall outside the geographical extent of the strip map that was reproduced at the start of the earlier parts.

Of the four listings, only one was an actual airfield, and a pre-war civil strip at that.

District	Name	Location	Position
Daly Waters	Turnbull (AKA Tyler)		16°09'S 133°25'E
	Daly Waters		16°16'S 133°22'E
	Fielder	5 miles S of Daly Waters	16°19'S 133°23'E
	Cuming	20 ½ miles S of Daly Waters	16°36'S 133°21'E {assumed}

The final part of this series, Part 7, will summarise the names of the airfields that have been included in the previous parts with a brief biography.

The original 1930 (Qantas) hangar at Daly Waters. [*Garry Shepherdson, 2015*].

TURNBULL
[Tyler]
16°09'S 133°25'E

Named after Flight Lieutenant J. Turnbull, Number 13 Squadron, RAAF, killed at Laha on an operational flight, 2nd January, 1942.[193]

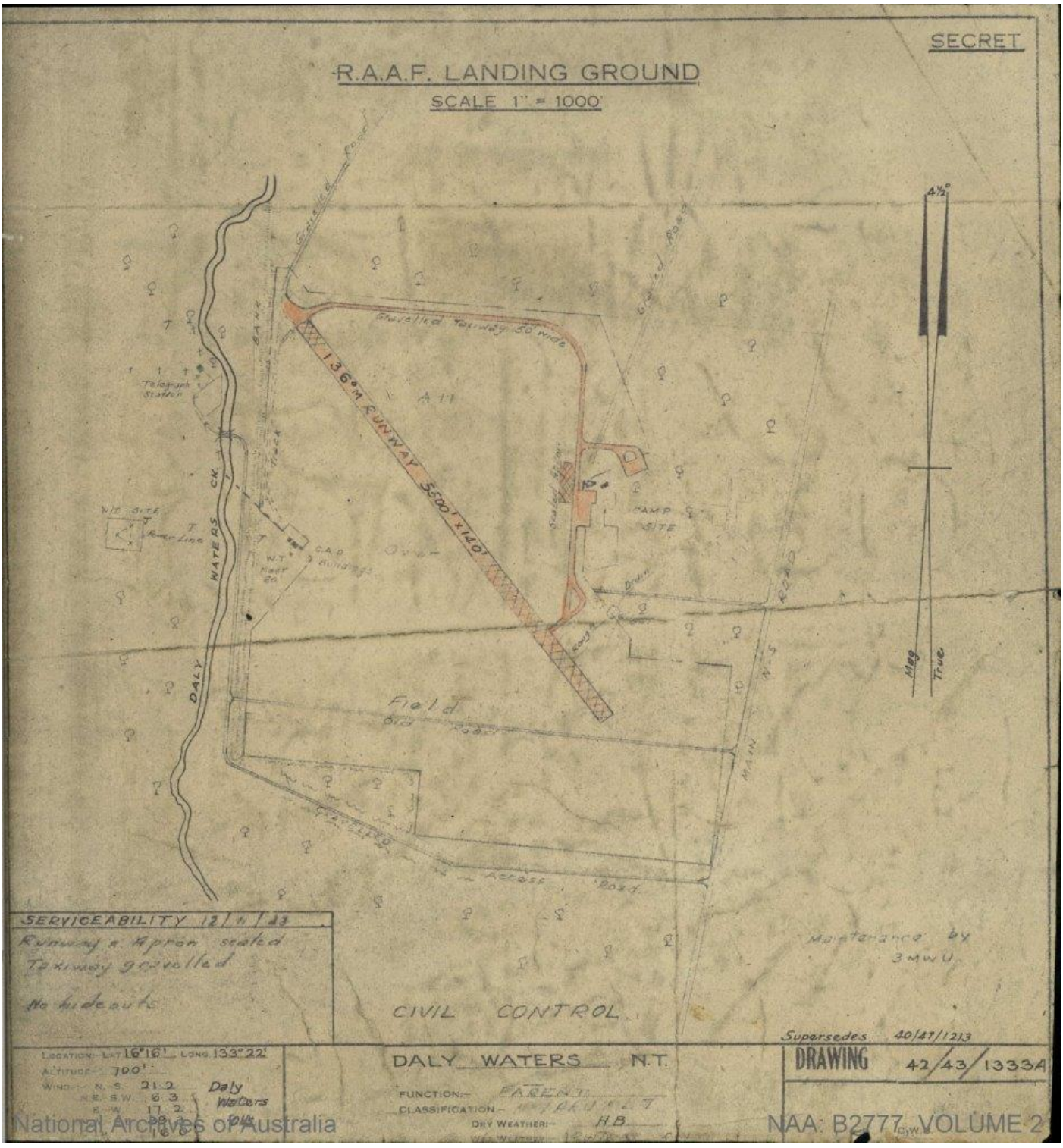
No. 13SQN's A51 records the date as 1st January. Flying Officer J Turnbull was captain of Hudson aircraft A16-29 which suffered an engine failure and crashed into the sea, killing three of the four crewmen aboard. The survivor, Sergeant B.E. Hack was seriously injured but luckily rescued by a Catalina.[194]

Scrub, a watering hole or two and cattle tracks in the area originally proposed for RAAF Landing Ground Turnbull, the nominated latitude and longitude here circled in red. [*Google Earth image as at 22nd June, 2020*].

Unfortunately, if an aerodrome layout diagram had been prepared, a copy of it hasn't been located. Aside from the aerodrome being named as a proposed site, no other details known.[195]

DALY WATERS
16°16'S 133°22'E

Daly Waters was an existing civil aerodrome which had been used since 1926 for commercial domestic and international flights as well as occasional RAAF use prior to 1942. However, with the first bombing raids on Darwin by the Japanese on 19th February, 1942, the "Commanding Officer No. 2 Squadron, (Wing Commander F. HEADLAM) was ordered to proceed to DALY WATERS to Command that Base. It had been decided that further heavy raids on DARWIN were probable and that the majority of Nos. 2 and 13 Squadrons aircraft and personnel would be based at DALY WATERS."[196]



Daly Waters. [*NAA: B2777, VOLUME 2*].

13SQN's "B" Flight remained at Darwin to support aircraft operations, but all other "non-essential" personnel on the Station were sent to Daly Waters.[197] 13SQN Headquarters finally moved to Daly Waters from Darwin on 5 March, "leaving "B" Flight at R.A.A.F. Station Darwin to man this base. This flight was to service all aeroplanes using Darwin Station."[198] Operations were still launched from Darwin but most aircraft were based either at Daly Waters (2 and 13SQN's) or Batchelor (12SQN).

Daly Waters, having been taken over by the RAAF, was elevated to the status of an RAAF Station on 18MAR42.[199] No.1 Repair and Salvage Unit (1RSU) was formed at Daly Waters on the same day,[200] followed by No.1 Medical Receiving Station (1MRS) on the 25th.[201]

2SQN was operating again from Darwin by 1st May[202] and 13SQN departed Daly Waters during the first week of May, when it moved to Hughes.[203] RAAF Station Daly Waters was down-graded when it was re-named Operational Base Daly Waters with effect 15MAY42.[204]

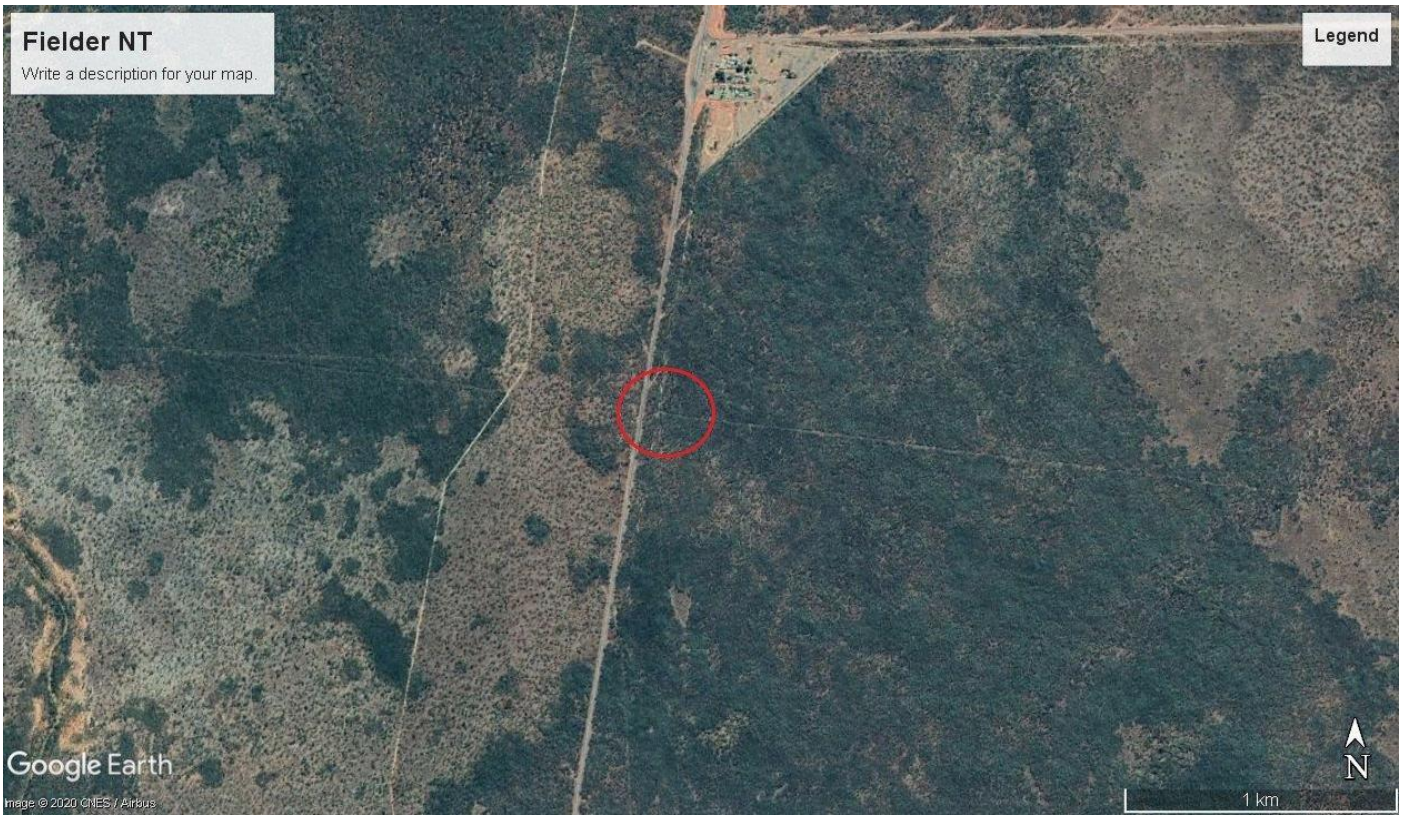
Daly Waters. I've used this image from 2004 instead of a more recent shot because traces of the war-time gravel taxiways were still evident. Here they have been shown in pale black (in an effort to allow you to still see the original – although the effect hasn't worked as well as hoped). The washed-out black rectangle on the western (i.e. left-hand) side of the north-south taxiway is the original (RAAF) sealed apron. The pale green ovals surround the very faint shadows of the small northern apron and – let's call it the – eastern apron; refer to the 1943 aerodrome diagram, reproduced on the previous page. On the western side, a post-war taxi-lane leads out from the runway directly to the civil apron area – which is, as it appears here, about twice the size it was when the RAAF moved in during February, 1942. The original, 1930's, hangar and some post-war buildings still exist there. [*Google Earth image from November, 2004, as at 22nd June, 2020*].

No.9 Stores Depot was formed at Daly Waters on 22AUG42,[205] but it was already clear that it wasn't going to be used as a major base. 1RSU moved to Manbulloo from 27AUG42[206] and 1MRS moved to Coomalie Creek on 14SEP42.[207] Operational Base Daly Waters become No.56 Operational Base with effect 30OCT42[208] and by early December, 1942, both 9SD[209] and No.2 Base Personnel Support Office[210] (2BPSO) had moved to other locations. 56OBU was reduced to a "number only basis" from 17JUL43,[211] which meant, in practical effect – with all personnel posted to other units, that the unit ceased to exist.

FIELDER
16°19'S 133°23'E

Fielder was the name given to a proposed airfield 5 miles south of Daly Waters who's reference point position was to be 16°19'S 133°23'E.[212]

It was to be named in honour of United States Army Second Lieutenant Arthur E. Fielder, 8th Pursuit Squadron, 49th Pursuit Group, who was killed in aircraft accident near Darwin on 22nd June, 1942.[213] 2Lt Fielder's P-40E-1, serial number 41-25185/48 "Sissy" crashed about 1 mile north east of its base at Livingstone.[214]



The area originally proposed for RAAF Landing Ground Fielder, the nominated latitude and longitude here circled in red. [*Google Earth image as at 22nd June, 2020*].

Unfortunately, if an aerodrome layout diagram had been prepared, a copy of it hasn't been located.

CUMING
(possibly) 16°36’S 133°21’E

Cuming was a proposed airfield 20 ½ miles south of Daly Waters with a quoted position of 16°16’S 133°22’E [sic].[215] **HOWEVER**, that latitude / longitude is the position of Daly Waters. At any rate, the proposed airfield was to be named after FLTLT R. W. B. Cuming, 2SQN, RAAF, killed at Koepang whilst taking off for operation against Namlea, 20JAN42.[216]

The unit history of No. 2 Squadron notes that many

> records for the months of December 1941 and January and February 1942 were either destroyed at KOEPANG, TIMOR, to prevent them from falling into enemy hands or subsequently lost when the Squadron Headquarters at DARWIN was totally destroyed by enemy action on the 19th February 1942.
>
> These circumstances combined with the fact that during the period in question the Unit was operating simultaneously from DARWIN, KOEPANG and NAMLEA and that the Commanding Officer was also Officer Commanding R.A.A.F. BASE KOEPANG make the compilation of accurate and detailed History Sheets most difficult.
>
> The following summary has been prepared by the Commanding Officer, Wing Commander F.HEADLAM mainly from memory and is in the form of a general record. Dates are approximate in many instances and details are lacking.[217]

That being the case, the unit history made a point of recording that:

> F/Lt. R.B. CUMMING as a Flight Commander was also outstanding. Both on the ground and in the air he showed great ability, devotion to duty, excellent judgement, dash and bravery and was an inspiration to every man under his command. F/Lt. CUMMING was recommended for the award of the D.F.C. but was later killed in an aircraft accident at KOEPANG.[218]

Given that the nominated lat / long for Cuming is actually that of Daly Waters, the intersection here widely circled in red marks a position approximately 20 ½ (nautical) miles south of Daly Waters as described above, specifically: 16°36’40”S 133°21’48”E. [*Google Earth image as at 22nd June, 2020*].

Unfortunately, if an aerodrome layout diagram had been prepared, a copy of it hasn’t been located.

Bibliography

Primary Sources
Air Force Confidential Orders and Index – 1942; NAA: A7674, 2.
Air Force Confidential Orders – Series A and B – and Index, 1943; NAA: A7674, 3.
North Western Area Aerodromes and Landing Strips (Existing and Projected) Named After RAAF and USAAC Pilots Killed or Missing During This War. NAA: A9695, 18
RAAF and Civil Official Lists of Aerodromes, Emergency Landing Grounds and Flying Boat Bases Australia and Territories. NAA: A9716, 1555.
RAAF Unit History Sheets Number 2 Squadron May 37 – May 46. NAA: A9186, 5.
RAAF Unit History Sheets Number 13 Squadron Jun 40 – Dec 45. NAA: A9186, 35.
RAAF Unit History Sheets – No 1 RSU Higgins Field NT [sic], Mt Druitt and Labuan, 1942-1945 – No 2 RSU Mt Druitt, 1942-1945 – No 3 RSU Aitkenvale, 1944 – No 4 RSU Laverton and Pell Field NT, 1942-1945. NAA: A9186, 372.

Secondary Sources
Heritage Notes, Aviation at Daly Waters via www.nt.gov.au/nreta/heritage/ntregister/declared/dwac/AviationDalyWaters.pdf.

Spitfire FR Mk.XIVe
in RAAF Service

Garry Shepherdson

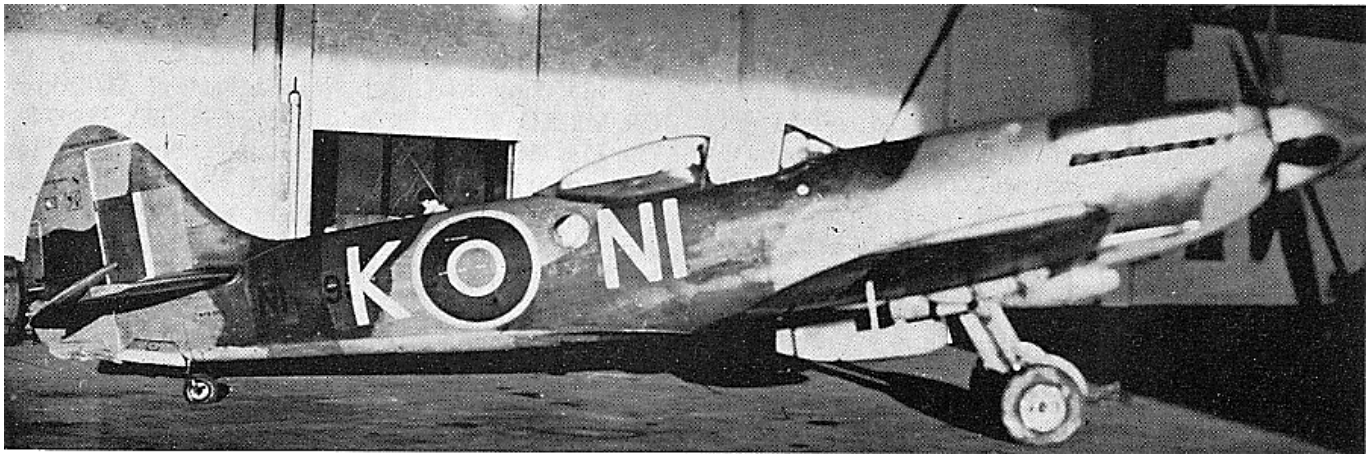
This isn't a "Notes Regarding" add-on or anything like that. I don't have any "previously unseen" operational documentation with which to prove an aircraft's individual code letter allocation and haven't made any specific or insightful inroads on the subject of 451SQN and/or 453SQN Spitfire FR Mk.XIVe aircraft. A comment on an Australian, but unrelated, website forum page, in relation to 453SQN Spitifre XIVs in Germany made the authoritative claim that, "I [the poster] do know [:] TZ-111 FU-R [and] TZ-312 FU-T". I [the writer of this article] felt that the second of those claimed associations was wrong. So, I thought I'd compile some information and see what I could pull together.

The information here has been collated from other people's research (not my own) found in several sources. Since the research isn't my own and, typical of most sources, hasn't been specifically referenced, I cannot vouch for the accuracy of the information. However, the main source that I've used here seems to have been derived in a similar fashion to our own site, i.e. from a source similar to our own aircraft status cards and it therefore highlights those serial numbers and blocks which contained Spitfire FR Mk.XIV and those that didn't as well as indicating which aircraft were delivered to 451 and 453 Squadrons.

All aircraft in the following tables are Spitfire FR Mk.XIVe aircraft unless otherwise noted and all of the information such as serial numbers, associated dates and remarks that appear in black has come from the online source, "airhistory.org.uk/spitfire". Entries in blue indicate information collaborated by photograph. In the "Remarks" column, entries in green indicate those serial numbers that also appear within the adf-serials page with specific information sourced from a magazine (see bibliography) in orange within square brackets.

451SQN

Serial	Date On	Code	Date Off	To Whom	Remarks
MV381	04OCT45				To BAF as SG-34 10MAR48.
NH640	04OCT45		17JAN46	443 Sqn	Listed in ADF-Serials.
NH754	03SEP45				To BAF as SG-56 24AUG48. Listed in ADF-Serials.
NH780	30MAR45				To BAF as SG-74 09DEC48.
NH791	03SEP45		23OCT45	Salvage	Listed in ADF-Serials.
NH792	06DEC45				Later 615 Sqn as RAV-W. Listed in ADF-Serials.
NH797	06DEC45				Former 453SQN. To BAF as SG-75 09DEC48.
NH833	25OCT45	[NI-N]			Listed in ADF-Serials. [CWD V2, I2, p33]
NH895	04OCT45	NI-K	19JAN46	39MU	[Photo]. Listed in ADF-Serials.
NH919	04OCT45				Listed in ADF-Serials.
NH922	04OCT45		17JAN46	443 Sqn	To BAF as SG-101 21JUL49. Listed in ADF-Serials.
NH923	04OCT45	[NI-W]	10OCT45		Flying accident. Listed in ADF-Serials.
RB184	29JUN45				Mk.XIV. Later RThaiAF as U14-3/93. Listed in ADF-Serials.
RM747	29JUN45				Mk.XIV. Later RThaiAF as U14-5/93.
RM858	29DEC44		18JAN45	610 Sqn	Mk.XIV.
RN206	22NOV45				Mk.XIV. Later RNethAF as H-96 22SEP47.
SM896			10AUG45		Accident, repaired on site. Listed in ADF-Serials as LF.XVI.
SM919			20JUL45		Flying accident (destroyed ?). Listed in ADF-Serials as LF.XVI.
SM935	04SEP45				Listed in ADF-Serials as LF.XVI.
SM938	04OCT45				To BAF as SG-9 03JUN47. Listed in ADF-Serials as LF.XVI.
TX989	03SEP45				To BAF as SG-88 08FEB49.
TZ122	03SEP45		20SEP45		Flying accident. Listed in ADF-Serials.
TZ139	03SEP45		07SEP45		Flying accident, repaired on site. Listed in ADF-Serials.
TZ141	17JAN46				Former 453SQN. Listed in ADF-Serials.
TZ142	03SEP45	NI-M			[Photo]. Listed in ADF-Serials.
TZ148	04OCT45		27NOV45		Flying accident. Listed in ADF-Serials.
TZ198	03SEP45	NI-A	17JAN46	443 Sqn	[Photo].

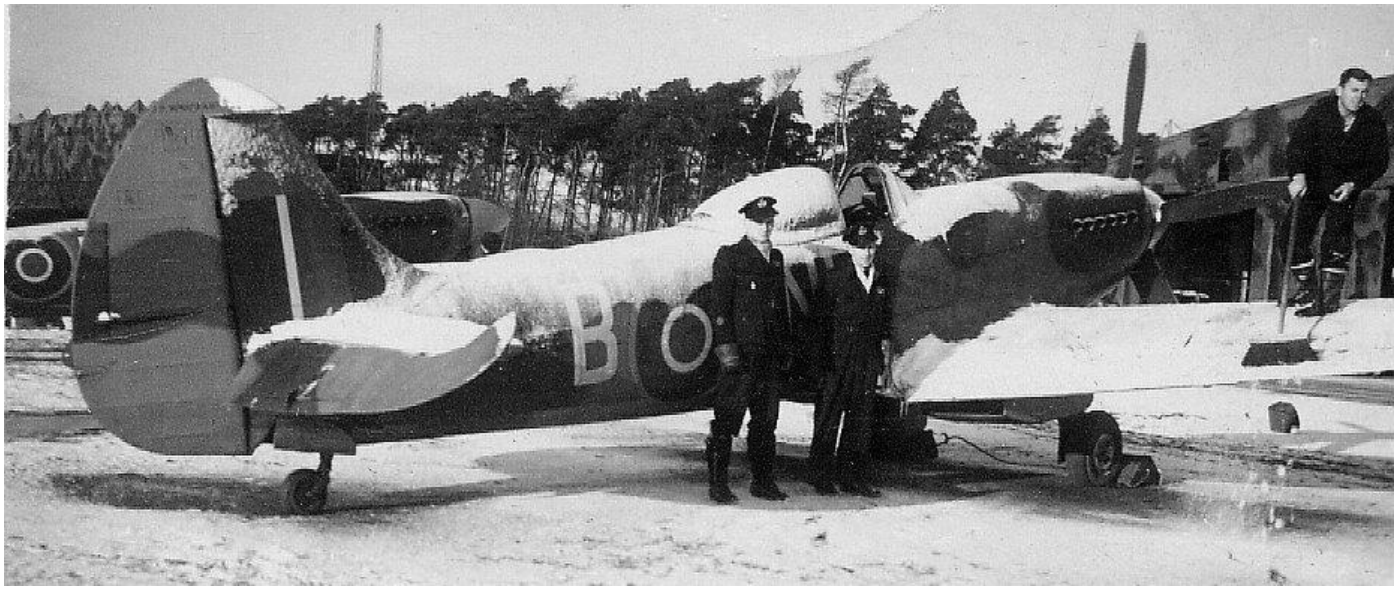


Nice profile shot of 451SQN's Spitfire FR Mk.XIV NH895/NI-K. The serial number has been partially obliterated however, the leading letter "N" is clearly visible, as is the second number "9" and the left-hand edge of the last number which is a "5" which means that the only suspect is "NH895". [*ADF-Serials gallery via Mike Mirkovic*].

451SQN Spitfire FR Mk.XIVe, TZ142/NI-M, Germany, second half of 1945. [*https://www.asisbiz.com/il2/Spitfire/RAAF-451Sqn/pages/Spitfire-FRXIV-RAF-451Sqn-NIM-TZ142-Gatow-Berlin-late-1945-01.html at 21AUG21*].

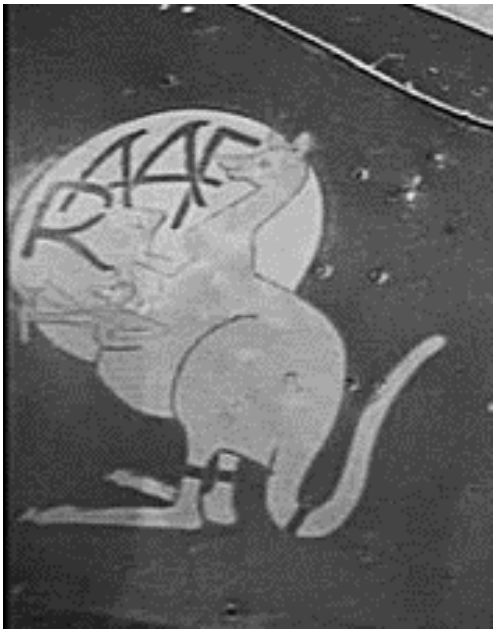
451SQN Spitfire FR Mk.XIVe, TZ198/NI-A, Germany, January 1946. [*https://www.asisbiz.com/il2/Spitfire/RAAF-451Sqn/pages/Spitfire-FRXIV-RAF-451Sqn-NIA-TZ198-Germany-Jan-1946-01.html at 21AUG21*].

With regard to images within the adf-serials gallery, the image reproduced below claims to be of TZ130 (serial not visible). The association has, no doubt, come from Halley (1988), which makes the claim in a table of representative serial numbers.[219] Unfortunately, working on the basis that the information from which these tables were compiled is actually correct and comprehensive, that serial number did not serve with 451SQN.



Captioned as being 451SQN Spitfire XIVe TZ130/NI-B. Whilst the "NI" codes are visible and the individual letter "B" is obvious, the serial number isn't. According to the tables compiled here, TZ130 was a 453SQN machine and did not serve with 451SQN. That, therefore, casts doubt as to the accuracy of the claim that the image depicts serial number "TZ130". [*ADF-Serials gallery via Mike Mirkovic*].

451s Spitfire FR Mk.XIVs carried a golden-yellow spinner(which I would suggest is probably the same Yellow as the ring around the national marking) and each had a symbol beneath the windscreen just forward of the access door:



The symbol depicts a kangaroo with a joey in its pouch (colours unknown, but I'd be inclined to think that they're probably a fawn-ish colour). The kangaroo seems to be indicating forward with its left paw and has a dark band around the tail and one around each ankle. The joey is holding a slingshot in its right paw and drawing the "string" to full extension with its left. This pair is in front of a disk (which I think is Yellow) with the letters "RAAF" upon it. Those letters and the bands around the ankles and tail seem to be the same colour (which I can't identify but, being air force, perhaps dark blue?). [*AWM image SUK14377*].

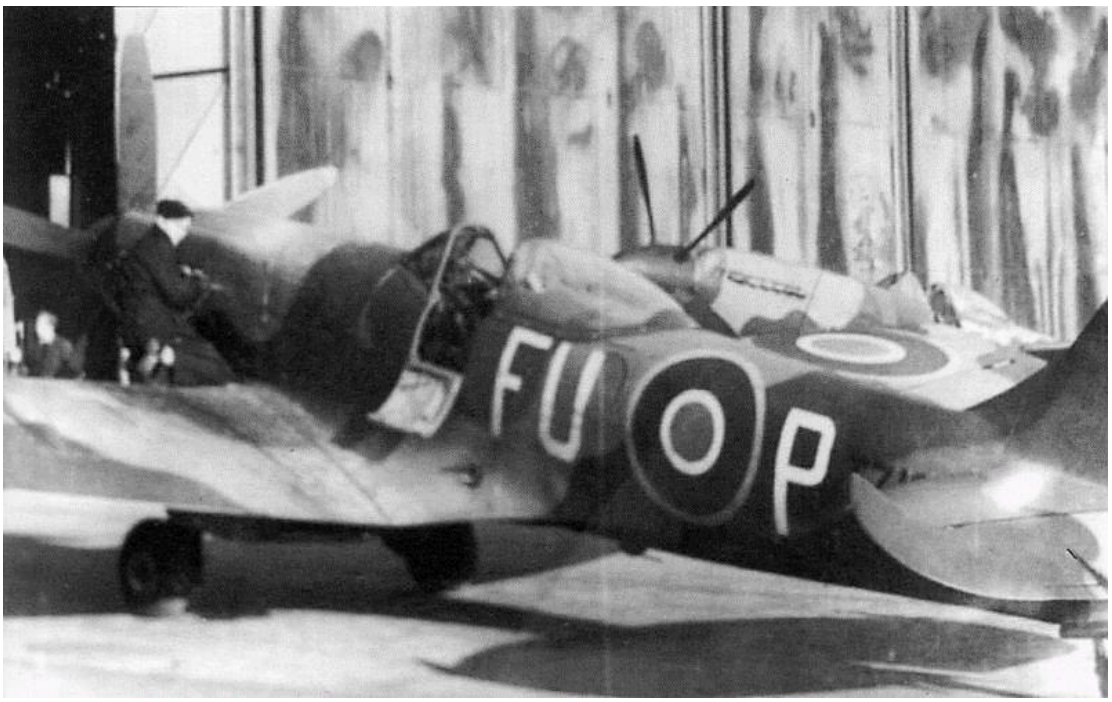
453SQN

Serial	Date On	Code	Date Off	To Whom	Remarks
MV312	06NOV45	FU-T	24APR46	29MU	[Photo]
MV353	04OCT45		28JAN46		Flying accident.
MV360	29JUN45		19JUL45		Damaged, repaired on site. Later sold to BAF.
MV362	29JUN45		20JUL45		Flying accident (damaged beyond repair?)
NH775	06SEP45	{FU-K}?			To BAF as SG-91 08FEB49. {Photo "FU-K" poss NH775 or NH797}
NH783	06SEP45			2 Sqn	
NH797	04OCT45	{FU-K}?	06DEC45	451SQN	To BAF as SG-75 09DEC48. {Photo "FU-K" poss NH775 or NH797}
NH892	06SEP45				To BAF as SG-65 05OCT48.
RM928	22NOV45		12MAR46	411 Sqn	Straight Mk.XIV.
SM826	22NOV45				Straight Mk.XIV. Listed in ADF-Serials as LF.XVI.
SM899	06SEP45	[FU-Z]			Listed in ADF-Serials as LF.XVI. [CWD V2, I2, p33]
TX995	06SEP45				To BAF as SG-49 10JUL48. Listed in ADF-Serials.
TZ106	28JUN45		06JAN46		Crashed nr Wichling, Kent. Pilot killed. Listed in ADF-Serials.
TZ111	06SEP45	[FU-R]			To BAF as SG-89 08FEB49. Listed in ADF-Serials.
TZ116	06SEP45		18OCT45		Flying accident. Listed in ADF-Serials.
TZ125	01JUL45	[FU-B]	17JAN46	443 Sqn	Listed in ADF-Serials. [CWD V2, I2, p33]
TZ127	06SEP45				To BAF as SG-81 18JAN49. Listed in ADF-Serials.
TZ130	25JUL45		[23NOV45]		Accident Lasham, repaired on site. Listed in ADF-Serials.
TZ131	06SEP45	FU-W	16JAN46	443 Sqn	[Photo]. Listed in ADF-Serials.
TZ132	06SEP45		16JAN46	443 Sqn	To BAF as SG-48 10JUL48. Listed in ADF-Serials.
TZ134	06SEP45				Listed in ADF-Serials.
TZ137	06SEP45		04OCT45		Flying accident, repaired on site. To BAF as SG-33 11FEB48. Listed in ADF-Serials.
TZ141	06SEP45	FU-D	16JAN46	443 Sqn	[Photo]. Listed in ADF-Serials.
TZ192	06SEP45				To BAF as SG-64 05OCT48.

For some reason this aircraft is often quoted as being "TZ312" – but it isn't. It is 453SQN's MV312/FU-T. [*ADF-Serials gallery via Mike Mirkovic*].

No argument about this machines identity – 453SQN's TZ131/FU-W. [*AWM image P09137.023*].

Or this one – 453SQN's TZ141/FU-D. [*ADF-Serials gallery via Mike Mirkovic*].



A 453SQN Spitfire FR Mk.XIV, TZ1nn/FU-P. Take your pick with this one – except that it can't be a TZ11n or TZ14n serial number; which doesn't really narrow the possibilities down very much. [*ADF-Serials gallery via Mike Mirkovic*].

With regard to potentially incorrectly captioned images within the adf-serials gallery, the image (below) of FU-K/NHnn7 via Mike Mirkovic claims to be serial "NH870" which cannot be correct if the preceding tables are accurate.

This 453SQN Spitfire FR Mk.XIV is captioned as being "NH870". That serial number doesn't appear in the preceding tables as having been with either 451SQN or 453SQN. The serial does indeed appear to start with "NH" which, if the tables are correct, means it is one of four possibilities. The number peeking out from behind the centre stub of the "F" looks to my eyes to be a "7". If that is the second number, then, according to the table, the serial is "NH775" – that being the only "NH" serial with a seven in the middle. If however, that seven is actually the last number, then the tables tell us that it must therefore be "NH797" – the only 453SQN "NH" serialled Spit XIV ending in "7". [*ADF-Serials gallery via Mike Mirkovic*].

453SQN Spitfire XIV aircraft seemed to carry a dark blue spinner. I'm not aware of any other special markings.

Badges of Number 451 Squadron (left) and Number 453 Squadron (right). 451SQN didn't have an official badge, the badge depicted is one of two unofficial designs (the other was in an RAF frame, rather than the RAAF frame). If this one was submitted as an official proposal, some changes would no doubt have been necessary. 453SQN's badge was an official badge which was granted in July, 1945. An obvious difference between the two is the heraldic crown. The 451SQN design has the Tudor (or Kings) crown, the 453SQN badge has the St Edwards (or Queens) crown. Readers may be interested in trying to obtain a copy of "Unit Badges of the Royal Australian Air Force" by Richard J Cluley for further information regarding unit badges. [*451SQN badge via clavework-graphics.co.uk/insignia/australia/RAAF-451_Sqn. 453SQN badge via*].

Of the 16 Article-XV squadrons formed by the RAAF (No's 450 through 467 (except 465) Squadron's), seven (eight?) were granted official badges (450, 453, 455, (459?), 460, 461, 463 and 464) and 451, 458 and 467 each had a proposed design. In addition, 451SQN and 454SQN also had a design in a standard RAF frame, but whether they were official proposals or not isn't known.[220] 452SQN and 462SQN have since been reformed and each now also has an official badge.

Good old "TZ312" which got me started on this turns out to not be associated with a Spitfire at all. In fact, it seems not to be associated with anything at all.[221] The adf-serials page is correct in not listing it.

There are quite a few additional serial numbers listed in the previous two tables compared to those listed as being Spitfire XIVs in the adf-serials listing. The six "SM" serial numbers listed above do appear in the adf-serials table, unfortunately they have been listed there as being LF Mk.XVI Spitfires (i.e. Merlin 266 engined), not Mk.XIVs (Griffon 65 engined).

Just to show that the 800 and 900 portions within the "SM" serial block were NOT Merlin engined Mark 16s. This is SM826 which went on to serve with 453SQN. [*John Roberts via rafcommands.com/database/serials/details.php?uniq=sm826*].

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AWM image P09137.023
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www.rafcommands.com/database/serials at 17AUG21.

Odd Shots: Wirraway Finals by Gordon Birkett@2020

Coverage of a single ex "Y" Squadron RAF aircraft and two 24 Squadron RAAF Wirraways captured by the Japanese, and the trio that made it to Japan in one piece after 1945, the last "combat" sortie of the RAAF Wirraway, yes in 1950 over Korea and Antarctica!

The first overseas deployment of the CAC Wirraway was with No 21 Squadron RAAF in the Army Co-operating Role. Of the total of sixteen aircraft sent, twelve in use equipment (UE) and the remaining four were Unit Reserves (IR). CAC Wirraway A20-63 had crashed in August 1941 which left fifteen airframes extant by November 1941.

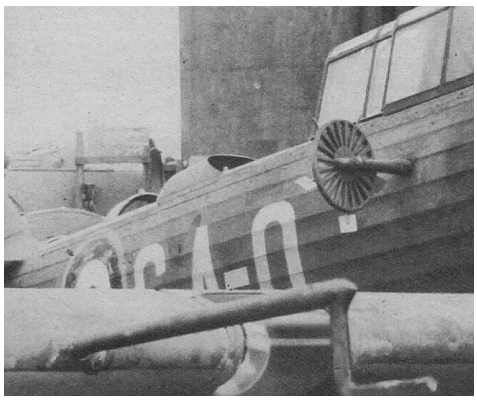
CAC Wirraways A20-48, A20-51, A20-84, and A20-85 were crated and returned to Australia by ship, arriving at 2AD on 16 December 1941. After returning some four airframes back to Australia, the remaining eleven airframes were handed over to 151 Maintenance Unit RAF for further use as Operational Training Unit Aircraft for all Buffalo Trainee Pilots at Kluang South Malaya.

One example of sixteen Wirraways that was sent on the 27 July 1940 was CAC Wirraway A20-63 seen here being loaded on troopship SS Orontes. But with Engine failure, it crashed on the 1 August 1941 while with 21 Sqn RAAF in Malaya. [GRB Collection *All pictures are GRB Collection unless advised otherwise]*

Let's get her ready for flight after re-assembly. Final checks being performed before flight.

A20-83 after its arrival in Malaya in Late 1940, and now coded as GA-X. Note CAC Wirraway behind now has the compiling RAF Type A1 Roundel, albeit a non-standard RAAF application that had been applied.

CAC Wirraway A20-83 GA-X pictured being moved.



A20-86 GA-O with Pilot under final instruction...right a worn GA-O with drone winch.

However, with the entry of Japan into the war, a decision was to place these OTU aircraft into frontline service within a new squadron, Y Squadron RAF. This Squadron was created on the 10 January 1942.

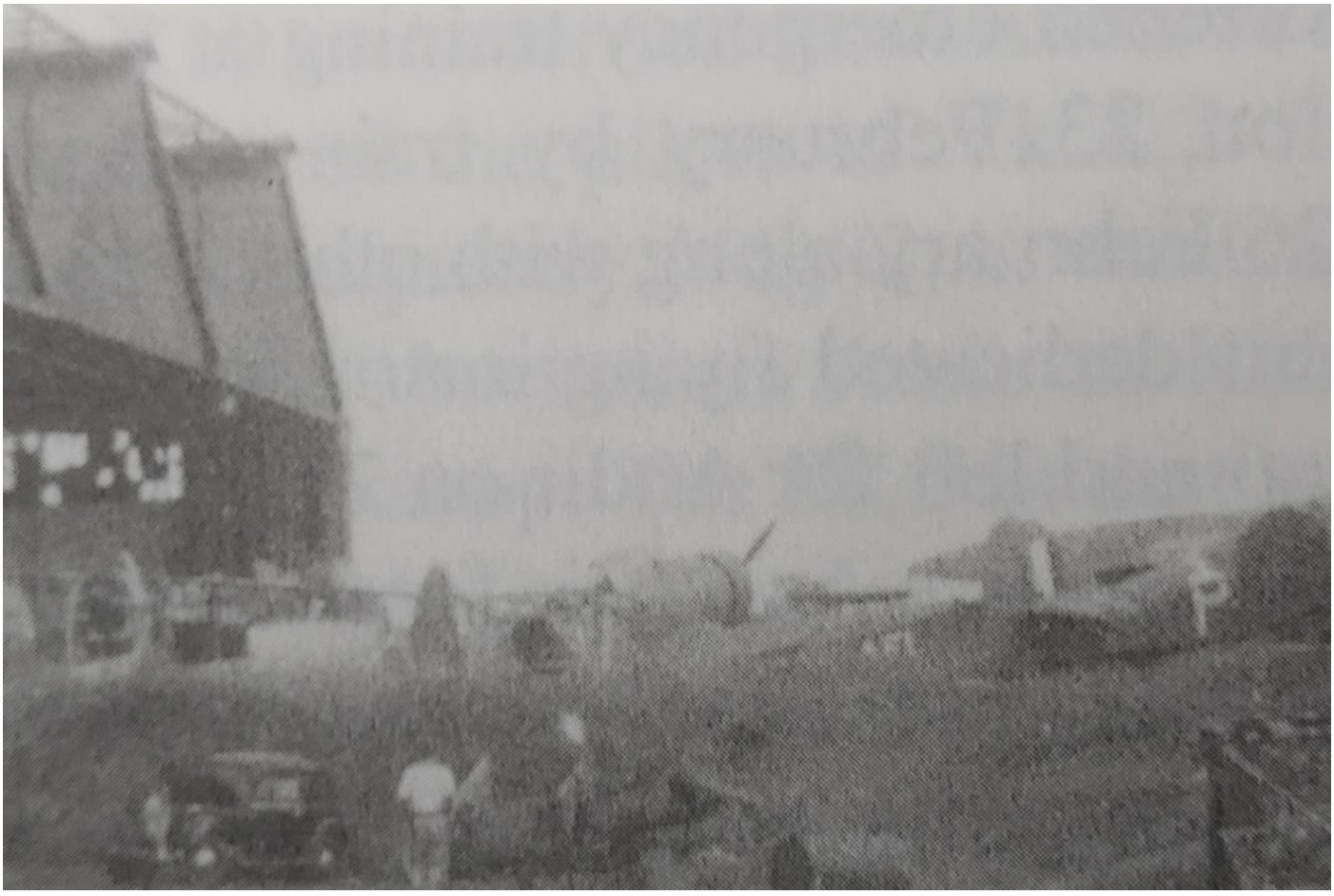
Only one known operational loss was recorded, and that was Wirraway A20-58 on 19 January 1942 when as part of a formation, was to attack river traffic in the Muar estuary and motor traffic on the Muar-Gemas Road. It sustained damage from ground fire with the pilot force landing in a jungle clearing some 5 miles west of Perit Sulong.

The crew, P/O Annand RNZAF and Sgt Tony Slater (WAG) RAAF were rescued by British troops and returned to Kluang.

2. In addition, the undermentioned aircraft which were operating in the Far East have been presumed lost and have also been struck off the records :-

No.1 Squadron	No.8 Squadron	No.151 Maintenance Unit
A.16-44	A.16-76	A.20-44
51	95	43
37	56	50
28	81	59
23	75	64
35	82	58
42	60	83
93	85	47
62	48	86
21	17	87
A.17-296	54	72
	A.17-293	A.17-297

It seems, despite the RAAF "Presumed" loss list above; at least one Y Squadron RAF CAC Wirraway had survived Malaya and was captured intact in Java as photograph below.



An intact unidentified ex Y Squadron RAF CAC Wirraway was captured in Java after surviving Malaya period, and above that particular airframe is seen "centre" with a variety of other airframes, including a Hurricane IIB and several Dutch types(Including a Fokker F.XII(PK-AFI)), at Andir, Java sometime late March 1942. [*Collection excerpt G J Tornij]*

Rabaul and No 24 Squadron RAAF

There was a Detachment of 4 Hudsons, including A16-13 and A16-91, at Rabaul. These were later reinforced with 12 Wirraways in mid-late December 1941 and 17 January 1942 from Townsville: A20-71/128/156/177/178/179/303/304/319/321/436 & 437.

Sadly in some published Sources like below, ring in aircraft haven't helped. First document proof of what serial that actually was there (Form C.F.)....A20-437...not A20-137,...a simple error of not checking facts.

Wirraway A20-137 of No 24 Squadron at Rabaul, flown by Flt-Lt Anderson, the first Allied fighter pilot to open fire on a Japanese aircraft in the South West Pacific on 6th January, 1942. The large letter "U" identified the squadron.

[Excerpt from Pentland RAAF Camouflage & Markings]

FORM C.F. R.A.A.F. Form A.108(A

SECRET

COMBAT (FIGHTER) REPORT

WIRRAWAY A20-437
UNIT: No. 24 Squadron.

Report No.

Pilot: F/Lt. B.H.ANDERSON.
Obs: P/O. C.A.BUTTERWORTH

Squadron: 24

Duty: Attempted interception.

Place: New Ireland.

Date 6 /1 /42

Time: 0830Z. hrs.

(1) Number, type and formation of our own aircraft taking part in attack:
Two WIRRAWAYS. No formation.

(2) Height when first sighting enemy:
Ground.

(3) Position of enemy (relative to own aircraft) when first sighted:
12,000 feet above aerodrome before take off.

(4) Type of enemy aircraft:
T97 Serial 43.
KAWANISI F/B.
Silver Colour.

(5) Number and formation of enemy aircraft:
7 in V.
2 in Box.

(6) Was own approach observed or unobserved:
Observed.

As for A20-137, it had already crashed on 10/04/41 at Tyalgum Creek near Murwillumbah QLD. *[RAAF Squadron narrative reports - Squadrons 75 and 76. NAA: A9652/Box21]*

Back to the story.....On the morning of 20 January 1942, the attack force, under command of Pearl Harbor Architect Commander Mitsu Fuchida, took off to attack the Australian installations at Rabaul in three Aircraft Groups.

After a one-sided air action, the two surviving Wirraways, A20-156 and A20-178, were flown out on 21 January 1942 to Salamaua PNG via Gasmata, New Britain. On 23 January 1942, they invaded. Those that remained, were either destroyed or in the case of several photos, captured such as A20-128 and A20-319.

CAC Wirraway A20-128 with Sqn Unit Code "U" above and later pictured at Vunakanau, February 1942 by the Japanese Navy.

A20-319, pictured above without Sqn Unit code "U" , has been stated by Historians over the last 78 years that it failed to return to Rabaul, and was believed to have been shot down by Japanese Zero's 20/1/42 as part of a 110 aircraft raid with its crew; SGT R.A. Blackman 402844 (Pilot) SGT S.E. Woodcroft 22630 (Observer) MIA. However, as seen above, it was left reasonably intact though damaged when captured, rather than being destroyed by enemy action, at Rabaul on the 23/01/42. There are no details per A20-128.

So, both were reasonably intact when captured, though one was sans wings, but both were on their undercarriages when photographed by the Japanese Navy.

So pictorial wise, at least three CAC Wirraways have been photographed in Japanese Hands by March 1942.

A few years on.....in Japan.

Coincidently, there were three BCOF Wirraways that arrived at Iwakuni in Japan on 26 March 1948.

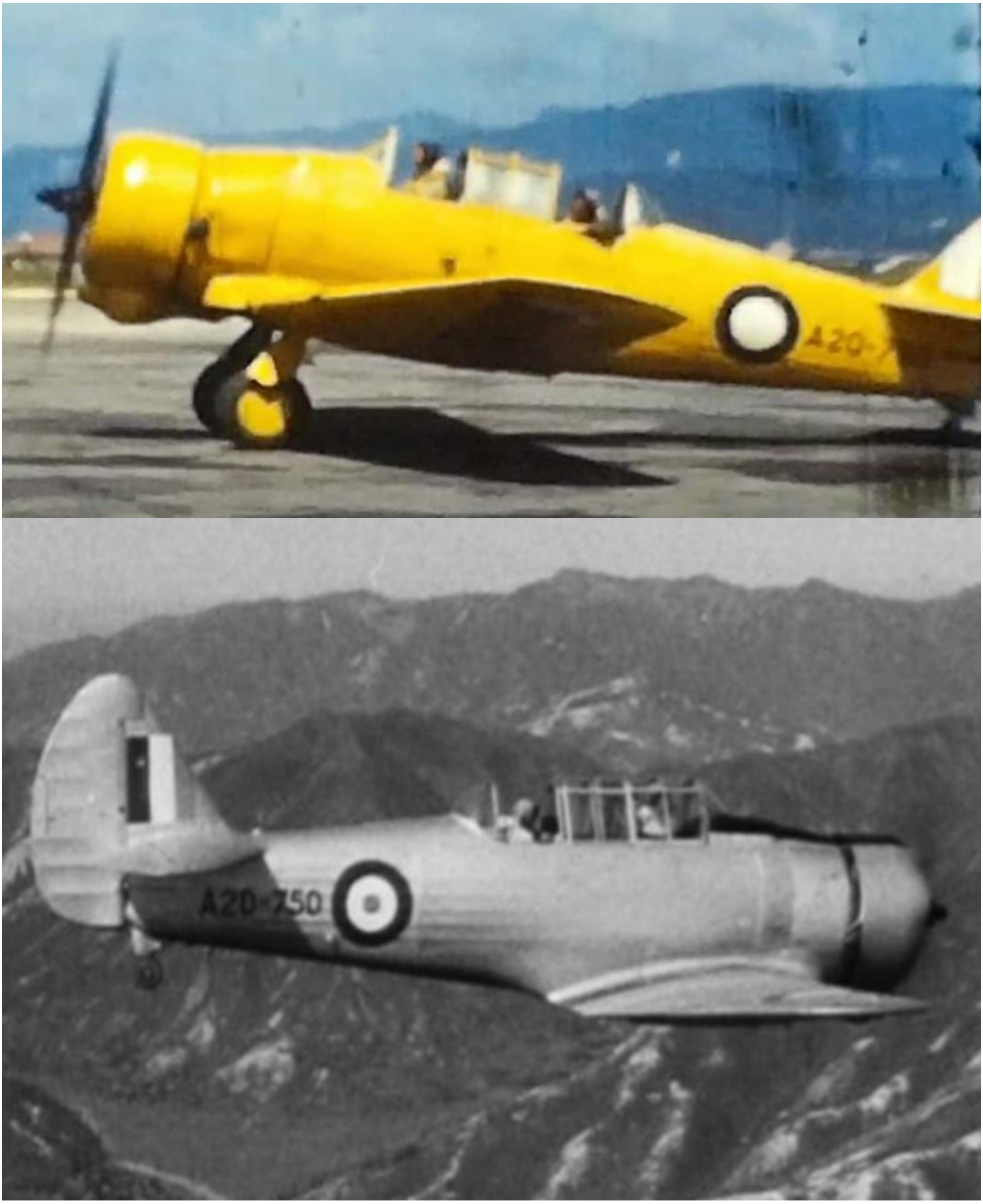
Prior, a further seven had been earmarked for BCOF Training Japan between 1946 and 1948.

Serial	BCOF Allotted
A20-573	Allocated BCOF Japan 11/07/46. Canc.
A20-595	BCOF (Japan) Pilot training per Orders QC1164 27/08/47
A20-707	BCOF (Japan) Pilot training per Orders QC1164 27/08/47.
A20-720	BCOF (Japan) Pilot training per Orders QC1164 27/08/47.
A20-723	BCOF (Japan) Pilot training per Orders QC1164 27/08/47.
A20-735	BCOF (Japan) Pilot training per Orders QC1164 27/08/47.
A20-737	BCOF (Japan) Pilot training per Orders QC1164 27/08/47.
A20-740	Rec 81 Wing RAAF BCOF Japan ex 2AD 26/03/48
A20-745	Rec 81 Wing RAAF BCOF Japan ex 2AD 26/03/48
A20-750	Rec 81 Wing RAAF BCOF Japan ex 2AD 26/03/48

Those shipped: **A20-740, A20-745 and A20-750**; all ended their RAAF careers there as follows:

A20-740 was received by 81 Wing RAAF BCOF Japan ex 2AD on 26 March 1948 and was eventually with 77 Squadron RAAF in Japan by late 1949. It was received by 91 Wing ex 77 Squadron RAAF on 7 December 1950. It remained in-service with 91 Wing RAAF Japan 1950-1956 within 30 Transport Unit (Later 36Sqn RAAF) in Japan. Approval was

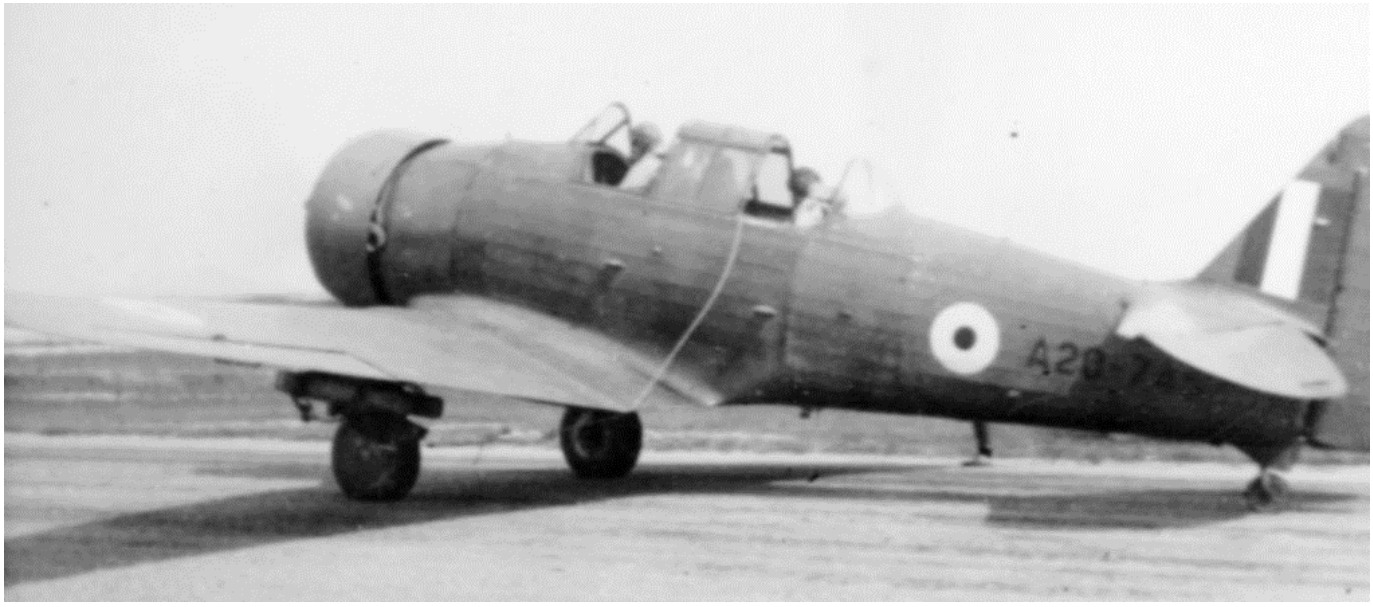
granted for her to be converted to components on 27th March 1956. SOC and its residue disposed locally in Japan by 23 April 1956.



A20-750 was received by 81 Wing RAAF BCOF Japan ex 2AD on 26 March 1948 and was eventually with 77 Squadron RAAF in Japan by late 1949. ***It was used to film a four aircraft Mustang Strike in South Korea, thus ending the combat use of the Wirraway in RAAF use as photographed at the time in B & W above.*** It was received by 91 Wing ex 77 Squadron RAAF on 7 December 1950. It remained in-service with 91 Wing RAAF Japan 1950-1952 with Transport Flight Japan. It suffered an accident on 20 July 1951 when the aircraft was forced landed at Sahaya, Japan (Lat 32'50" North

and Long 130' 05" East). The crew; F/O K J Blight Serv#031569 and Passenger W/O A W McEachum were injured. Approval was granted to convert to components on 15 December 1952. SOC and residue disposed locally on 17 March 1953. The colour photo: *FB_IMG_1635830849757 off ADF Serials Face Book*

A20-745 was received by 81 Wing RAAF BCOF Japan ex 2AD on 26 March 1948 and was eventually with 77 Squadron RAAF in Japan by late 1949. It was received by 91 Wing ex 77 Squadron RAAF on 7 December 1950. It remained in-service with 91 Wing RAAF Japan 1950-1952. It suffered an accident circa 1000 hrs 16 June 1952 when the aircraft struck power lines (at 80-90 feet) and crashed into the Hiji River near Nagahaka, (Shikoku) Japan. The crew; Sgt James Dargin Codd Serv#A33623 (30 (T) Unit RAAF) was seriously injured (Broken leg and fingers)and Cpl Raymond James Waddell Serv#A2638 would later died of injuries. The airframe was struck off Charge 15 July 1952.



At some time at Iwakuni, did Wirraway A20-745 wore a painted scheme before changing to its silver dope finish at the time of her accident? Or was this her getting tested at 2AD after storage in production Foliage Green/Or Trainer Yellow with new current 1947 markings in 1947?

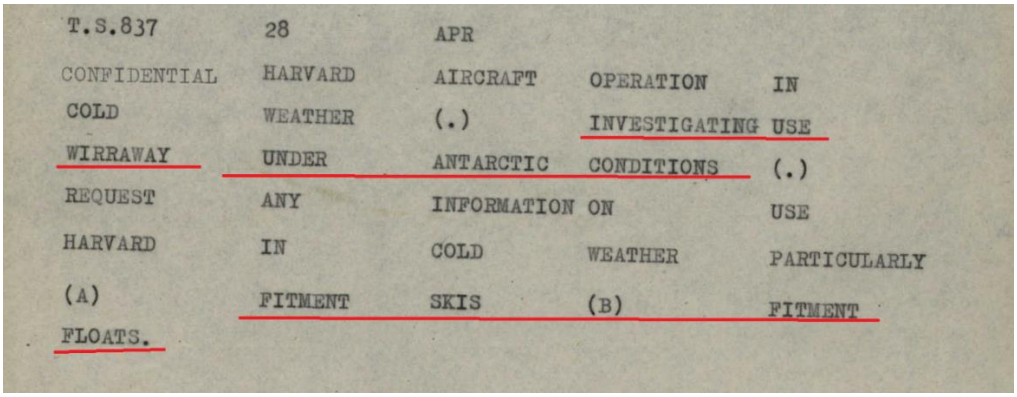
I say..." *Should have been Training Yellow ex CAC like her sisters, thus after arriving in Japan in all likelihood".* JB states *"doesn't look red to me - closer to the roundel blue. Roundel red is very dark. I would say Yellow." Yellow it is GRB*

Previous discussion Link per: Page 33
http://www.adf-serials.com.au/newsletter/ADF%20Telegraph%202018%20Autumn.pdf

A further Wirraway, A20-718 was said to arrive at Iwakuni, Japan, **but no, it was never allotted nor sent to BCOF**.

Rec 1AD ex CAC 14/08/45. Rec 7AD S/R 05/09/45. Cat B Storage 22/03/46. To be stored Cat E 29/07/46. Upgraded Cat C Special Reserve 29/07/46. Rec 1FTS ex Tocumwal CMU 21/04/49. Accident 1000 hrs 07/08/50 when aircraft stalled on approach striking starboard wing on landing during a precautionary landing at Point Cook. Pilot, Lt A G Cordell (RAN) not injured. Repaired. Accident 25/01/51 when aircraft suffered wing drop (Port) on landing at Laverton Aerodrome. Crew: Sqn Ldr W M Coombes Serv#021987 and T/Plt R Knight Serv#A33818 both not injured. Repaired. Tfr Point Cook Base Sqn ex 1FTS 01/03/51. Accident 1120hrs 08/05/57 when aircraft ditched following engine failure in flight a half mile south of mouth of Werribee River in Port Phillip Bay in 14 feet of water (Location Lat 37.59.15 S, Long 144.41 E). Pilot, PNA (P) Franklin, J R (RAN Serv#R52044) Eng#7937 at time of accident. Airframe hours of A20-718 at time of accident 1875.15 hours. Aircraft approved and used by Fire Section Point Cook for Fire Fighting Course 01/05/58.

Was its versatile use finished then? My goodness, Skis and Floats in 1954 for Antarctica!!!! It was considered.


T.S.837 28 APR
CONFIDENTIAL HARVARD AIRCRAFT OPERATION IN
COLD WEATHER (.) INVESTIGATING USE
WIRRAWAY UNDER ANTARCTIC CONDITIONS (.)
REQUEST ANY INFORMATION ON USE
HARVARD IN COLD WEATHER PARTICULARLY
(A) FITMENT SKIS (B) FITMENT
FLOATS.

Sources

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RAAF File: A20 Antarctica Ref 9/15/370
RAAF Squadron narrative reports - Squadrons 75 and 76NAA A9652/Box21
E/E-88 Cards Wirraway.
A50 History 91 Composite Wing Oct 50 - Apr 55 NAA: A9186,678
Research

The First RAAF Parachute Escape by Gordon Birkett@2021

A RAAF Bristol Bulldog Fighter during start-up *[ADF-Serials.com]*

Pilot Officer William Gordon Rae Serv#38 at the age of 25 years was assigned to the Fighter Squadron, Flying Training School located at Point Cook on 21 February 1930 from No 1 Squadron RAAF. He had enlisted as an Air Cadet on 11 June 1928 from being a Surveyor's Assistant for three years prior and was commissioned as a Pilot Officer on 15 March 1929 on graduation and assigned to No 3 Squadron RAAF.

As standard kit, following the mandatory introduction of parachutes for aircrew some two years hence, he left Point Cook RAAF Station's aerodrome at 1515hrs local in Bristol Bulldog A12-4, wearing one on the afternoon of Thursday 30 May 1930.

A half hour later, whilst performing an outside loop high above Geelong Road near Laverton Victoria, the pilot heard something snap. He was practically inverted and tried to right the aircraft. Realising that he had lost mechanical control of the aircraft, he had no option but to leave the stricken aircraft and use his parachute.

Ground witnesses stated at the time that as the pilot left the cockpit of his aircraft, the top wing then detached from the fuselage and lower wing causing the aircraft to enter an inverted flat spin from an altitude of 4000 feet.

With little wind evident, the pilot landed safely following his decent in a field some 200 yards from the road, near on two miles from Point Cook towards Laverton. The aircraft crashed not far from there with its nose and engine buried some 18 inches into the ground. The stated price of a Bristol Bulldog was then £3500Aus when it was issued to Fighter Squadron of No 1 Flying Training School just a fortnight earlier.

He was, as recorded, the first recorded Australian pilot (either civil or RAAF/Male or Female) to escape an inflight emergency by parachute in Australia.

Often when we write articles, seldom do we mention the afterlife of one's subject person. He was at Point Cook undergoing a Flying Instructor's Course from April to July 1930 at the time of the accident. He was married the following year.

As a Flight Lieutenant, with some 1366 hours of flight in his logbook, he would depart Australia later in December 1937 to attend a RAF Staff College Course (No 16) at Andover, in the United Kingdom and then remained in the United Kingdom on secondment until April 1941.

During the whole of 1939 after completing his studies in 1938 (following being promoted to Squadron Leader), he was on exchange duties with No 49 Sqn RAF flying Handley Page Hampden Bombers including three months after the war started as officer In charge of "B" Flight.

Following this he performed staff work in the operations room with the RAF from late 1939(RAF Station Hemswell) to January 1940.

On 19 March 1940 RAF Hemswell-based Handley Page Hampdens of No. 61 Squadron RAF were the first Bomber Command aircraft to drop bombs on German soil during the Second World War. The target was the Hörnum seaplane base on the northern Germany coast.

Following on from that, he performed Organisational Staff Duties with No 17 Group, based at Gosport. From August 1940 to October 1941, he was the second in charge of RAF Station Uxbridge. He eventually returned to Australia in September 1941 as an Acting Wing Commander. There he was assigned as the Commanding Officer of No 1 Service Flying Training School for November 1940 to May 1942 before being transferred to the School of Army Co-operation for two months from June 1942 to attend No 5 AC Course.

Thereafter he was assigned to Headquarters North-Eastern Area from August 1942 for three months to the Staff School and Senior Wing (Australia) at Duntroon before being sent to 1st Corps/1st Army as a Liaison/Planning Officer from 29 March 1943.

On 27 June 1943, he relinquished his commission after much disappointment of his experience in being underutilised, and retired from the RAAF on health grounds, and five days after reporting to No 3 Embarkation Depot located at RAAF Sandgate, Brisbane after flying up on the same day from No 1 Embarkation Depot located Ransford, Melbourne.

Thereafter the trail goes cold, until some years of decades later, he was residing in Canada in 1982 until his death.

He was not the first RAAF parachutist though as official parachute courses at Richmond RAAF Station had been undertaken since 1926.

THE GREAT ADVENTURE.—Flying Officer V. Augenson, the first member of the Richmond aerodrome class to descend in a parachute, climbing into the D149A. Inset: Flying Officer V. Augenson in a Sidcot suit.

The first jump 1926 for F/O V Augenson [Web per "The Sun" Newspapers]

As for Bristol Bulldog A12-4 above before delivery, the airframe was largely considered as destroyed, therefore a complete write-off. Certain components of the rear portion of the fuselage and the tail empennage were worth salvaging. These components were to be serviceable and economically repaired where possible and the remaining valueless material be destroyed*. [ADF Serials.com]*

Jupiter VIF Engine No 6807 would also be dismantled and inspected at the Air Depot at Laverton.

In a separate historical timeline, parachuting was an adventure pursuit in Australia, all male at that. significance, the first female parachute use was supposed to have happened on 22 March 1930.

A Miss Muriel Gilbert was to make the first female jump at Parafield South Australia in the promotion of the new film, "The Sky Hawk".

[Pin Interest]

However, the then Civil Aviation Department forbade it. Afterall, at that time of Australia, it was considered too dangerous for a lady at that time of history.

Sources

www.pinterest.com.au

RAE WILLIAM GORDON: Service Number - 38: Date of birth - 22 Sep 1904 NAA: A9300, RAE W G

Aviation [includes registers of aircraft, pilots, navigators, flying instructors and ground engineers; reports on aircraft accidents; permission for parachute descent] NAA: D1915/SA1012

Douglas DB-7A/B Bostons and A-20s: The first 5 months of 1942 in detail with the RAAF and NEIAF

By Gordon Birkett@2020

Factory picture of a Douglas built DB-7B, if it is #235 than that equates to being DB-7B AL902 which later went to the USAAF, along with AL903. This aircraft sequenced within the last MLD Batch from Douglas-Santa Monica. *[Douglas Aircraft Company]*

Further to the recent two-part article by Mark Harbor in a previous Telegraph in 2020, we'll provide a little more some more background on our DB-7A/Bs:

At the outbreak of the hostilities in the Pacific, the Netherlands East Indies (NEI) government made an urgent appeal upon the US government for Defence Aid for different types of aircraft, such as Douglas DB-7B Boston Light Bombers for the KON.MARINE MLD (Marine Luchtvaart Dienst). On 24 December 1941 the Netherlands East Indies was allocated 32 Douglas DB-7B Bostons by the US Government

Boston DB-7Bs were transferred December 1941 to NEI of which were eighteen Douglas built and fourteen were Boeing built, with one additional airplane delivered January 1942 as an attrition replacement; exported were seventeen Douglas built DB-7Bs plus eleven Boeing built DB-7As.

In any event by 27 February 1942, only six Douglas/Boeing Built DB-7B Boston Light Bombers were to arrive in Java before 8 March 1942 surrender, and they were on board the MV *Kota Baroe*. Two were eventually made flyable by the Japanese and then air tested; Douglas Built **DB-7B's AL904** and **AL906**.

Meanwhile, with other ships carrying another seventeen Douglas DB-7B Boston aircraft to Sydney and Melbourne, the MV Tosari, carrying a further three Boston aircraft, sailed into Geelong to off load her cargo after leaving Hobart Tasmania, where she had waited until the Dutch surrender was sorted out.

The problem now was what to do with these twenty-two refugee MLD DB-7B aircraft.

In the beginning

The RAAF was excited and wanted them, but so did the Dutch. The assembly of the first nine DB-7Bs was at North Shore Geelong as performed by the Erection and Test Squadron per 1AD Records.

No 22 Squadron's first Bostons, **A28-1/2/3/4** arrived at Richmond RAAF Station on 25 April 1942 after assembly and test flights from 1AD RAAF Station Laverton, and on the following day, so did **A28-6/7/8^{222}/9** arrive from 1AD. They replaced the CAC Wirraway officially on 4 May 1942, when most of those aircraft were allotted to 2OCU or 2AD.

Missing **A28-5** had an earlier accident on 12 April 1942 following a test flight after assembly and rigging, still in Dutch national markings as **D66**, when on landing at Laverton, damaged its landing gear. **A28-5** would arrive a few days later 30 April 1942.

Of interest, Pilot, F/Lt W J Meehan Serv# 270368 was not injured. He, as a flying instructor, had been borrowed from 1SFTS for the test flights (He would soon the following month command 76 (F) Sqn RAAF and later 86 (F) Squadron the year after).

A28-4 left, and unidentified aircraft right pictured at Laverton in April 1942. [*Neville Claude Dunlop RAAF Collection]*

Even before **A28-9** had carried RAAF markings and serial, whilst still marked as **D70**, it had a landing accident the following day 13 April 1942, at RAAF Station Laverton when the nose wheel blew out following landing tail down that caused a tail scrape, then over control of pushing stick forward in placing nose gear down hard on ground. Pilot; F/Lt Vernon William Morgan Serv#550, was not injured.

Later in May/June 1942: **A28-11/12/14/15/16/17**(SOC May 42)/**18/19/21/22** were delivered ex 2AD Richmond.

That would leave the Unit strength of No 22 Squadron in mid-June 1942 being eight aircraft as Immediate Equipment (IE) and four aircraft Immediate Reserve (IR) and would have included DB-7B A28- Serials as follows:

> Eleven aircraft per **A28-1/2/3/4/6/8/12/14/19/21/22** with a further aircraft, **A28-17** having been already struck off 3/6/42 following being substantially damaged because of overshooting the runway at Mascot on 18 May 1942. Pilot, P/O R F Fethers Serv#406834 was not injured, having only arrived 10 May 1942 from 1 OTU.

Those delivered to 2AD for assembly **A28-10/13/20** were held in reserve until later that year.

From July 1942 the Authorised strength was eighteen aircraft (12 UE/2 IR/ 4 Maintenance Reserve (MR)) with only thirteen DB-7Bs on strength and with only five serviceable. A Moth Minor was held on strength as well. *Serviceability rates even dropped lower to just three aircraft by mid August 1942*

A bit of No 18 NEI Squadron background

We move back to the equipping No 18 NEI Squadron from March 1942, which is required reading.

Twelve of eighteen recently arrived NPC Contracted B-25Cs were handed back to the USAAF in March 1942; No 18 Squadron NEI continued training on six held B-25Cs.

Somewhere during that time, from April 1942 it was decided to equip both No 22 Squadron RAAF (from 01 April 1942 and No 18 NEI Squadron (from late May 1942) with Douglas DB-7Bs and A-20As (the latter being the American version of the DB-7B, quite different in its American armament calibres (0.30cal and American bomb sight, Norden).

Per RAAF requirements, the original pathway was that the refugee DB-7B's was considered as a interim aircraft for No 22 Squadron RAAF, pending the emanate delivery of the Vultee/Northrop V-72 Vengeance Mk1 that up to that time. Delays would see these deliveries pushed back further until late 1942, early 1943.

By then of course from experience that they needed escorting by P-40s, after a limited service in PNG, they were withdrawn by early 1944 from operations, with that role largely replaced by the P-40N Kitty-bomber.[223]

As of 2 June 1942, the Air Board advised that the USAFIA (United States Army Forces in Australia) would provide all stores and equipment for No 18 (NEI) Squadron[224]

Further on 10 June 1942, RAAF Headquarters Edgecliff NSW was concerned regarding whether Canberra Aerodrome being suitable for the operation of Heavy Bombers.....No 18 N.E.I. Squadron have to date, used their B-25 aircraft for training and daylight flying only. They are now in the process of being re-equipped with 18 Boston aircraft which have similar take-off and landing characteristics to the B-25.....[225]

So, between somewhere from the 31 May 1942 to 12 June 1942, there was an expectation of some eighteen Bostons to arrive. There is only a week window of Boston/A-20 arrivals in theory.

Therein lays the issue of where were there such aircraft available? Refer Peter Boer Boston Research 2010[226]

As stated per No 22 Squadron numbers, there were just eleven aircraft in service in June period, three at 1AD (**A28-3/7/21** undergoing Fuel and Oil Tank modifications, along with Torpedo rack installations), two written off (**A28-2 at 2AD A28-17 SOC 03/06/42**) with the balance still being assembled (**A28-10/13/20**). The only odd girl out was **A28-6** which, though listed on strength in May 1942, was returned ex 1AD via Canberra on 08 June 1942. The balance of airframes, **A28-1/4/5/8/9/11/12/14/15/16/18/19/22** there were on strength, along with **A28-6**, per E/E-88 Card Histories during this period. No entries on any A28 Boston Cards refer to any NEI/18 NEI Squadron issues.[227]

The remaining B-25Cs were to be collected by nine USAAF pilots who arrived on 13 June 1942 to do such, but the commanding Officer of No 18 NEI Squadron, Wg Cdr B J Feldeldy, refused and referred the matter to the NEIAF Headquarters in regards to keeping the type, because of its longer range and application of hitting back at the Japanese occupied Netherlands East Indies (Timor), a feat that DB-7B and A-20As couldn't do with their shorter range.

Five DB-7Bs were ferried from Laverton by No 22 Squadron Pilots who arrived there on 4 June 1942 to collect them, with another three to be collected on 12 June 1942 from Richmond, with a balance made up of A-20As from the USAAF Stocks recently arrived in Australia.

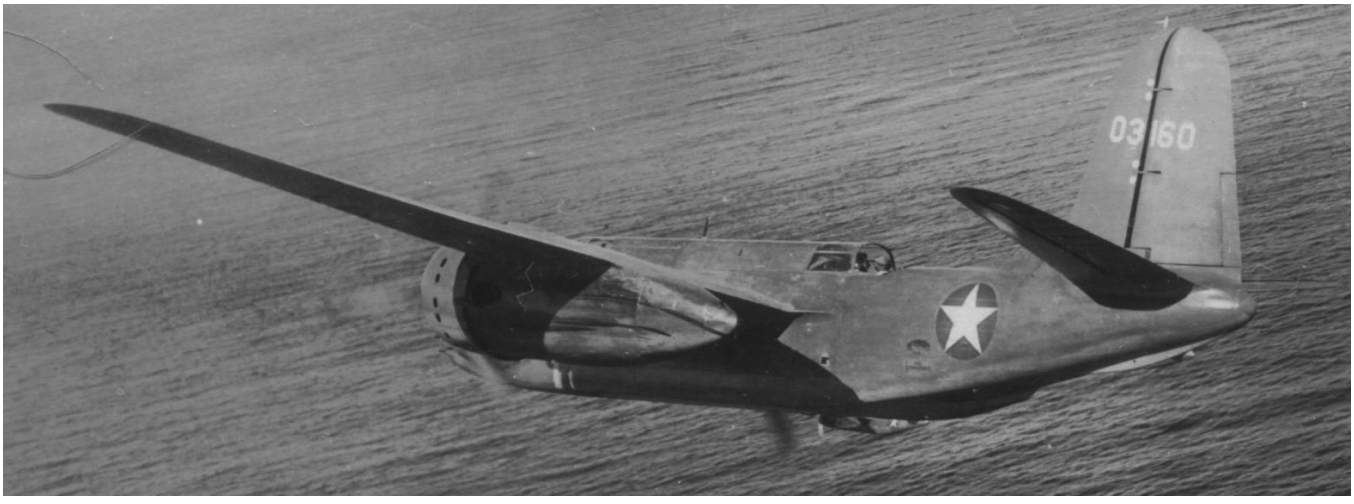
Three ex MLD Douglas DB-7B Bostons arrived at Canberra on 12 June 1942, with the first three USAAF A-20As arriving a few days later. These USAAF A-20As arrived ex Amberley RAAF Station via Richmond and had been flown by RAAF Crews; identified as **A-20A's 40-077 #45** *(later in 1943 to become **A28-36**),* **40-82 #15**, and **40-101 #22**.

*A total of eight A-20As aircraft were requested to ferry from Amberley to Canberra via Richmond per A50 History of No 22 Squadron RAAF on dates with five pilots leaving for Amberley on 10 June 1942 with four returning the next day at Richmond with four aircraft. On 12 June 1942, only three of these were ferried to Canberra (**40-077/082/101).***

That confirms the first three A-20As.

However, for some reason, on 16 June 1942, 1st Lt Henry J Rose ASN O-403809 left Canberra at 1000hr with USAAF Pilots and Crews to ferry these A-20As to Brisbane (**40-077/82/101)** then onto Charters Towers. No 18 NEI Squadron A50 Records show that by the 22 June 1942, that there were four B-25Cs (N5-132/134/136/151 and six A-20As on strength.

All USAAF **A-20As** available in country at that time of 31 August 1942, were **38 A-20As**: **40-077, 40-079 ,40-080, 40-082, 40-085,40-089, 40-090, 40-094, 40-101, 40-109, 40-110, 40-112, 40-118, 40-132, 40-139, 40-143, 40-144, 40-146, 40-155, 40-159, 40-162, 40-166, 40-167, 40-169, 40-170, 40-173, 40-175, 40-176, 40-3145, 40-3147, 40-3148, 40-3150, 40-3151, 40-3153, 40-3155, 40-3159, 40-3160 and 40-3161.**



Ex Loaned NEI A-20A 40-3160 photographed later in PNG. *[3rd Bomb Group Historical]*

That totals eleven ex 3rd BG A-20As that were in country, originally intended for use by the 8th Bombardment Squadron of the 3rd Bomb Group (Light). The other Squadron, the 89th Bombardment Squadron would get the balance.

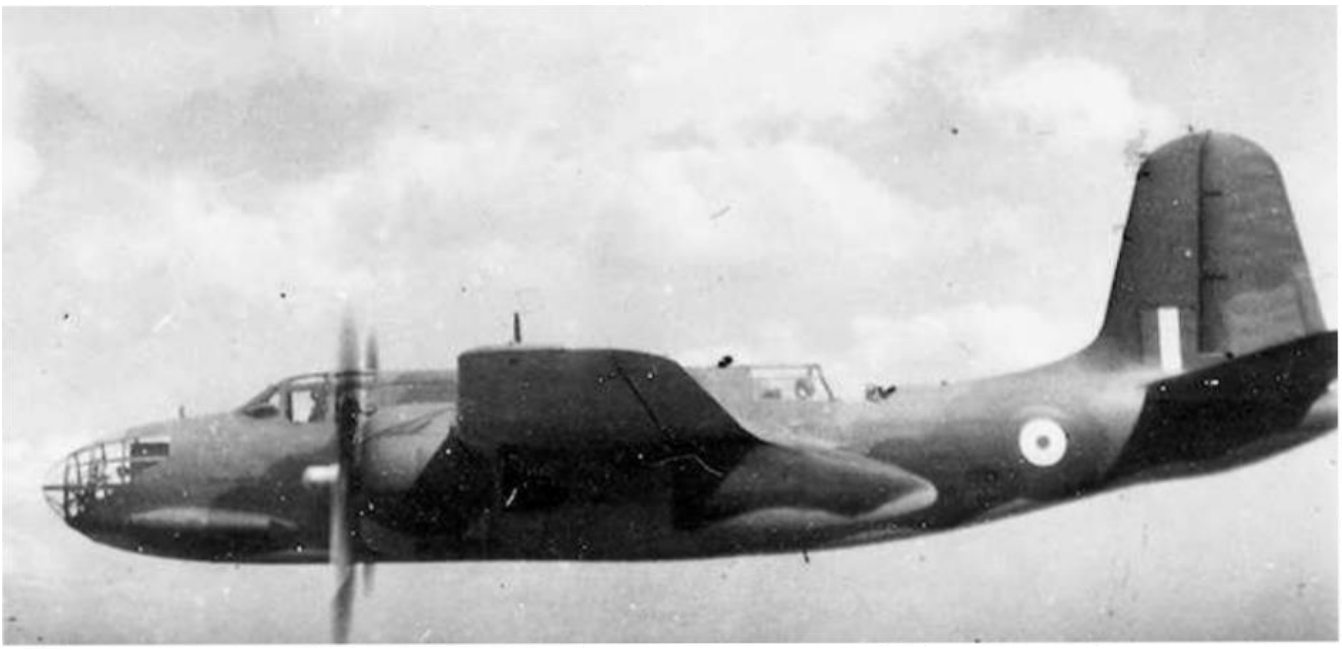
Note: *Peter Boer does confirm A-20A's* ***40-77/82/85/101/142/155/3160*** *being the transferred aircraft to the NEIAF.*

Our No 22 Squadron A50 Records shows that 10 A-20A aircraft being handed over to the RAAF to be ferry down south on 23 June 1942 by RAAF Crews. This would be the A-20A's totals that left on that day as referred by No 18 NEI Squadron's entry.

A few weeks on, after deciding to standardise on the B-25C in lieu of Douglas DB-7B Boston Light Bombers as originally planned for that squadron, they were picked up by the RAAF and the seven assigned A-20As were returned to the USAAF for use by the 8th Bombardment Squadron of the 3rd Bomb Group. Orders from NEI HQ stated that the Squadron was to retain B-25C as Unit Equipment and a flight of A-20A aircraft for training. That would mean four ex USAAF A-20As were retained.

On 18 June 1942, F/Lt D K McDonald 430 took delivery of **A-20A 40-155** at Canberra and ferried it to Richmond. The remaining six were used for general training.

On 22June 1942, ten A-20As (eight DB-7Bs and two A-20As) were handed back over to F/Lt Bell of No 22 Squadron RAAF and four RAAF piloted aircraft were ferried to 1AD Melbourne on 24 June 1942.



One of the first three MLD Bostons to arrive and be assembled in Australia, photographed during a test flight. On the nose there is still the text KON. MARINE and underneath the horizontal tail plane (not visible) the D serial of the MLD [Collection J. W. Smith, through J. L. Horsthuis]

Note: Peter Boer does confirm eight DB-7Bs had in fact arrived at Canberra; ***A28-5/7/9/11/15/16/18/22*** *from 6 June 1942, with all on strength deleted on 23 June 1942 and picked up the next day by RAAF pilots and crews.*

From this point, all ex Dutch DB-7A aircraft were consolidated within the RAAF, whilst No 18 Squadron NEIAF became a B-25 Squadron.

No 22 Squadron would have to make do with its surviving Bostons until 1943. *Mark Harbor in his past Boston articles published covered the history henceforth. Editor*

Sources:

A50 Histories: No 18Sqn/22Sqn/1AD/2AD/3AD
Boston Aircraft A28 RAAF File#452 A28
E/E-88 Cards
A28 Accident records
USAFIA (United States Army in Australia) Records held in Microfilm
Peter Boer Shared research

A Local Wartime Memento by Kevin Brooks

On October 9, 1942, an RAAF Douglas Boston III bomber, flying south, came in low over our property at Stanmore. My brother Mervyn who was astride his horse at the time, called to Mum, May Brooks, that it was going to crash.

Mum doubted him but it was low on fuel and continued its descent, crash landing in Cruice's paddock (near the Beerwah Turnoff on the Woodford- Kilcoy Road). As my Dad, Bill Brooks, said later, the pilot picked probably the best local area to land but didn't see a gully that was overgrown with grass. This gully unfortunately broke the plane's back.

My brother, clearing several fences on his horse, was one of the first on the scene. One of the Cruice Brothers used an axe to free the pilot and co-pilot (P/O Robert Alfred Wines 402432 (Later Missing with 1APU, 1944) and Flt Sgt Grove). *Editor: **A28-19** had departed Garbutt for Archerfield, to be modified with nose guns and records show it was Sgt W Addison 405707 who was the pilot who was under conversion perhaps[228].*

Mum and Dad hurried to the site (I'm told initially they couldn't find me, two years old, as I was playing in a box of bolts Dad had bought at a clearing-out sale). Records do not report the crew as being seriously hurt but one must have injured a finger, as In the cockpit of the plane, my mother found the top half of a signet ring. She didn't mention it to Dad who found the bottom half and threw it away!

A28-19 after its forced landing [*Author's collection*].

I'm told there was a mobile laundry located near where our Woodrow Road met Beerwah Road and the soldiers were left to guard the plane. Dad said they did more damage to the plane, souveniring, than was done in the actual crash!

When I was a boy, there was still a crumpled piece from the plane lying around our farm. It made great arrow heads!

I have kept the ring for 74 years and I am now donating it to the Woodford Museum. (In hindsight it would have been great to try to locate the crew members.

However, it has only been in recent years with access to computer information that I have been able to name the crewmen. I believe though that a Flight Lieutenant Robert Wines DFC, killed in a Mitchell bomber in 1944, was the same pilot. I have been unable to find what became of Flt Sgt Grove.

Curtiss Corner: P-40E-1s: A29-158, and where did A29-145 go?

Gordon Birkett@2021

USS Hammondsport (AKV-2) was built as SS Seatrain Havana in 1932 by Sun Shipbuilding & Dry Dock Co., Chester, Pennsylvania. After operating for Seatrain Lines, Inc. until 1941 she was acquired by the Navy through the Maritime Commission on a bare boat basis and commissioned at New York Navy Yard as the USS Hammondsport (APV-2) on 11 December 1941, with Commander P. R. Glutting in command. It was the second of a two classed Kitty Hawk Class Aviation Transport ship class.

The USS Hammonds Port. [Source *www.navsource.org*].

Designed to carry cargo and aircraft, the USS Hammondsport got underway 18 December 1941 for Chesapeake Bay, VA., and a short shakedown cruise. She continued to the Canal Zone, where she arrived 26 December 1941 and unloaded five PT boats transported from New York.

In Buffalo New York **P-40E-1 41-24861**, was accepted by the USAAF ex Curtiss Wright on the last day of 1941. Crated and dispatched by rail to San Francisco California across the United States with another 110 other P-40E/P-40E-1 aircraft to be shipped by sea to Project X (which was the theatre code for the United States Army Forces in Australia (USAFIA) at the time for the reinforcement of the Philippines).

The USS Hammondsport arrived at San Francisco on 7 January 1942 and began loading general cargo and assigned aircraft to be carried to SUMAC (**S**end **U**rgent **Mac**Arthur). Departing on 15 January 1942, she eventually steamed into Moreton Bay Queensland with her precious cargo of 111 P-40E/E-1s and 10 O-47 Observation Aircraft on 4 February 1942.

After berthing at Brett's Wharf at Hamilton, Brisbane on 6 February 1942, the unloading of the aircraft began. The two shipping crates for **P-40E-1 41-24861** along with 107 others were then transported by rail to Ipswich and then by road to Amberley RAAF Station.

There at Amberley, the erection of the 108 P-40E/E-1s were started in earnest by teams of USAAF and RAAF ground staff. The missing 3 P-40E/E-1 aircraft of the total had been redirected at Brett's Wharf for forward shipment direct to the Philippines on the US Army contracted blockade runner, the SS Anshui.

P-40E-1 41-24861 was one of the last of that shipment to be erected on 21 February 1942. For a few days it was tested, and its engine was slowed timed (run in) in several local flights around the area.

As aircraft were accepted as airworthy, they were issued to individual pilots to ferry down to assigned 49th PG squadrons from 22 February 1942 located at Mascot (7th PS), Bankstown (49th PG HQ Flt and 43rd MS) and Williamtown (9th PS) NSW and finally Canberra RAAF Station (8th PS) in the ACT from the 1 March 1942.

A week prior on 16 February 1942, all these units were advised that RAAF personnel were to train with USAAF personnel. This included giving dual refresher training in Wirraway aircraft and in return RAAF pilots to train on P-40Es.

Until the P-40E/E-1s arrived at Canberra, two Wirraways were used for conversion and currency training for the USAAF pilots; Wirraways **A20-497** and **A20-498**. A further aircraft type, a Fairey Battle for target drogue practice, was furnished also: Battle **L5694**.

By 6 March 1942 **P-40E-1 41-24861** was on the table of equipment of the 49th Pursuit Group USAAF, and assigned to the 8th Pursuit Squadron, based at Canberra RAAF Station.

On a separate line of history, Number 5 Squadron RAAF was formed at Laverton in January 1941 in an Army Co-operation role. Equipped with both Wirraway (12) and Moth (3) aircraft, it was still based there at Laverton in February 1942.

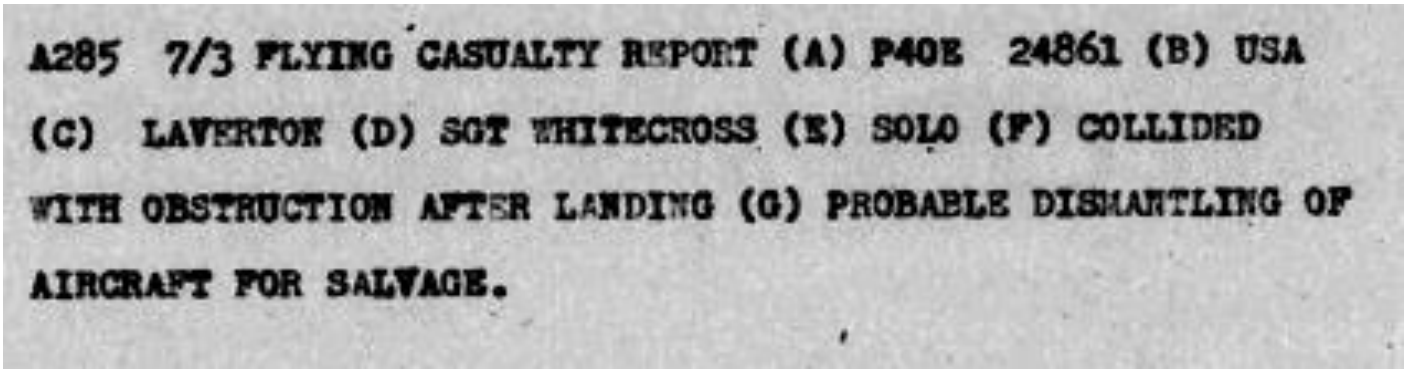
Its Wirraway pilots, including a Sergeant Robert McFarlane Whitecross Serv#405334 who joined the squadron in November 1941, were heavily involved in Army Co-operation flights, both day and night during February and March 1942.

On reflection of its Wirraway accidents during that period, two fatal accidents amongst them, it was an intense flying period.

On 3 March 1942, at Laverton, whilst preparing for such a sortie, his **Wirraway A20-288** caught on fire at Laverton when he was starting the engine causing slight damage to the airframe.

Two days later, because of a requirement to mount harbour and coastal patrols around the Melbourne Area, the 8th Pursuit Squadron (49th Pursuit Group) then based at Canberra RAAF Station, was ordered to move to Laverton RAAF Station on 5 March 1942.

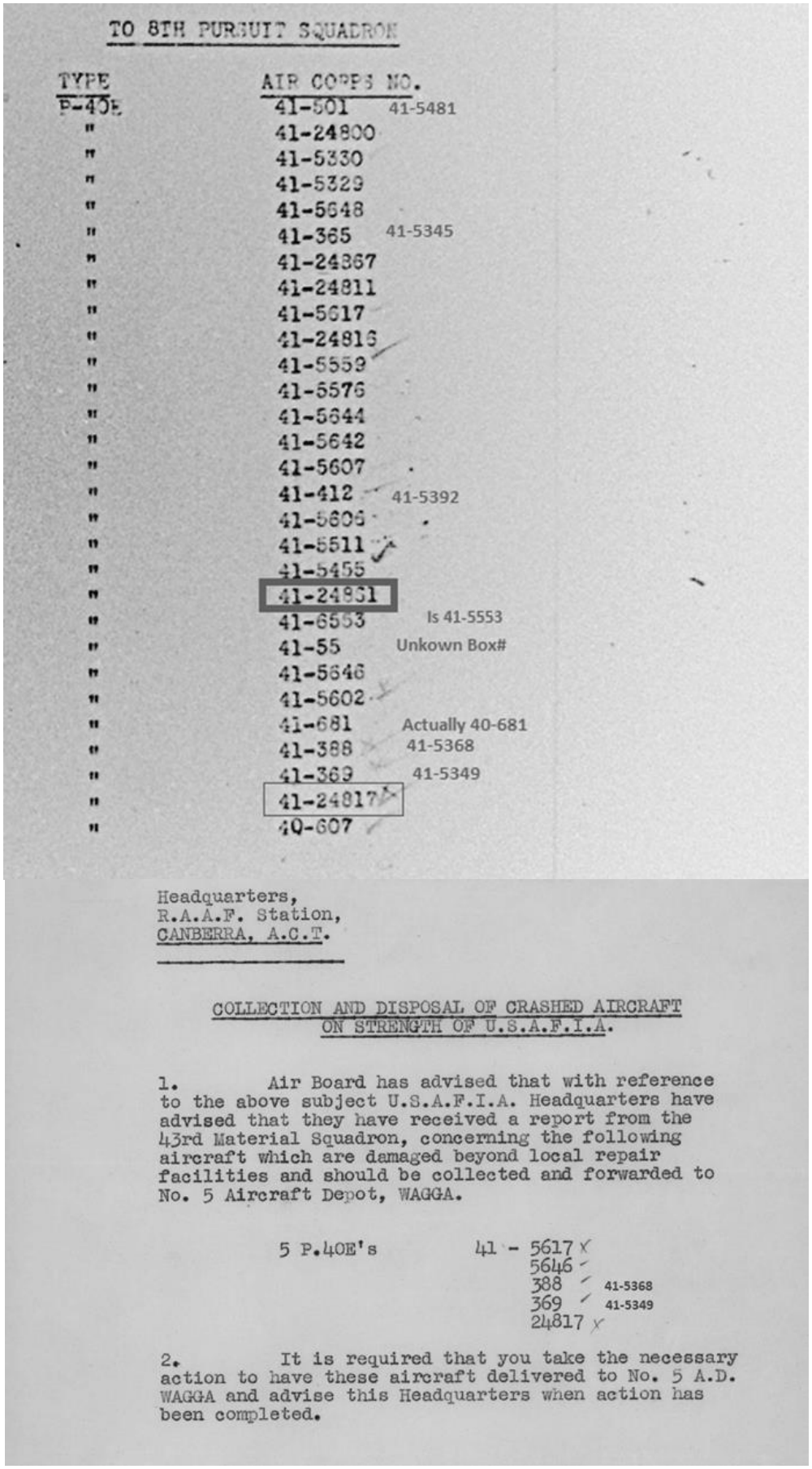
On 7 March 1942 Sergeant Robert McFarlane Whitecross had his first flight in a USAAF P-40E-1 which was one of the 8th Pursuit Squadron P-40s positioned and located at Laverton at this time. That aircraft was **P-40E-1 41-24861** as reported to the Air Board, repeated to Southern Area USAFIA Melbourne on 8 March 1942, it stated:


A285 7/3 FLYING CASUALTY REPORT (A) P40E 24861 (B) USA
(C) LAVERTON (D) SGT WHITECROSS (E) SOLO (F) COLLIDED
WITH OBSTRUCTION AFTER LANDING (G) PROBABLE DISMANTLING OF
AIRCRAFT FOR SALVAGE.

The cypher excerpt dated 08/03/42. [Author's *USAF AHRA Reels*].

This one of only a few examples where RAAF pilots had damaged or destroyed USAAF P-40E/E-1s (current count is 3 now) before receiving our own allotted Kittyhawks into RAAF Service as from 7 March 1942.

A month later, on 8 April 1942, the 8th Pursuit Squadron was ordered northwest to the Northern Territory with 5 less P-40E/E-1s that had been destroyed or crashed.



TO 8TH PURSUIT SQUADRON

TYPE	AIR CORPS NO.	
P-40E	41-501	41-5481
"	41-24800	
"	41-5330	
"	41-5329	
"	41-5648	
"	41-365	41-5345
"	41-24867	
"	41-24811	
"	41-5617	
"	41-24816	
"	41-5559	
"	41-5576	
"	41-5644	
"	41-5642	
"	41-5607	
"	41-412	41-5392
"	41-5606	
"	41-5511	
"	41-5455	
"	41-24831	
"	41-6553	Is 41-5553
"	41-55	Unkown Box#
"	41-5646	
"	41-5602	
"	41-681	Actually 40-681
"	41-388	41-5368
"	41-369	41-5349
"	41-24817	
"	40-607	

Headquarters,
R.A.A.F. Station,
CANBERRA, A.C.T.

COLLECTION AND DISPOSAL OF CRASHED AIRCRAFT
ON STRENGTH OF U.S.A.F.I.A.

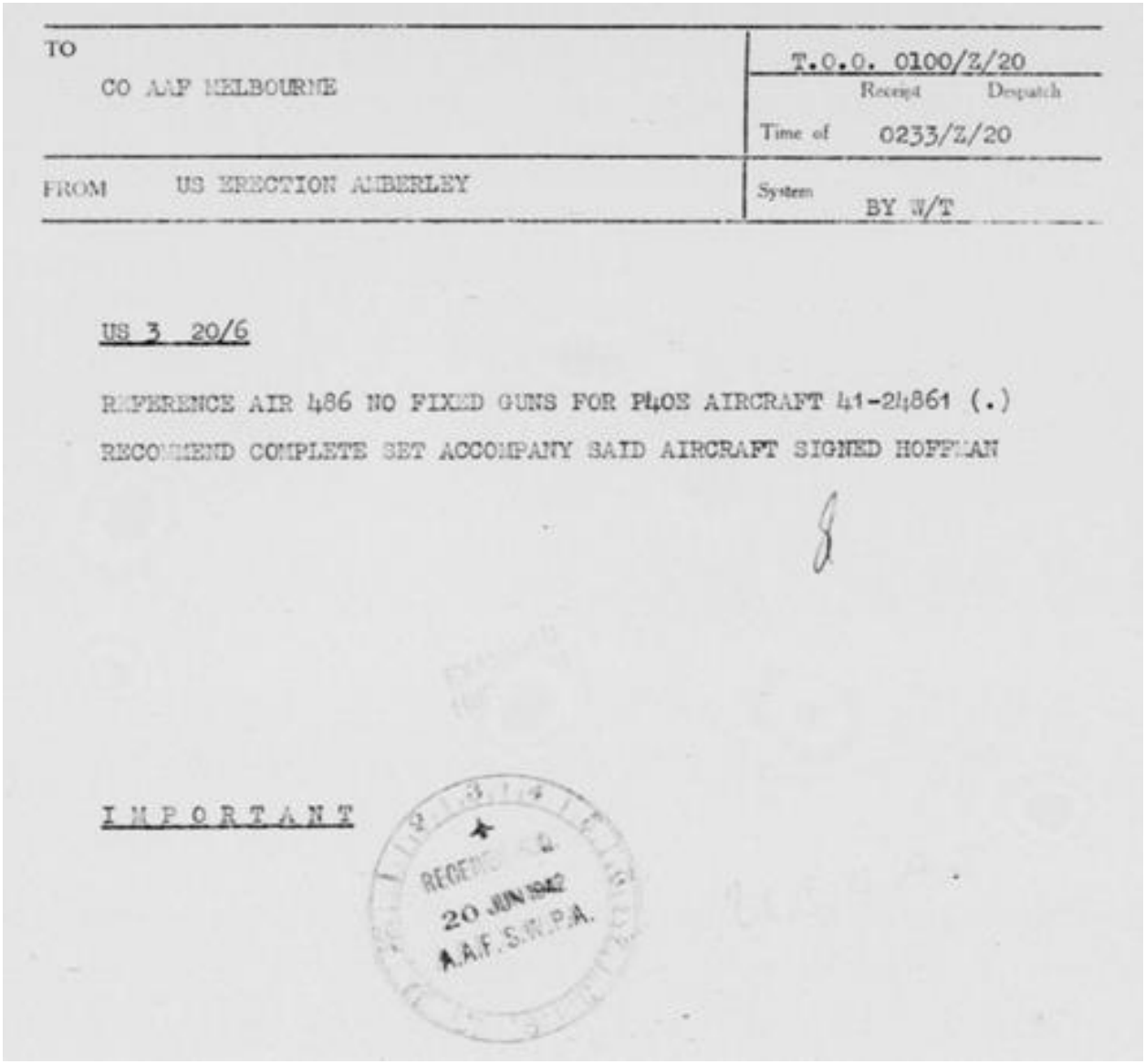
1. Air Board has advised that with reference to the above subject U.S.A.F.I.A. Headquarters have advised that they have received a report from the 43rd Material Squadron, concerning the following aircraft which are damaged beyond local repair facilities and should be collected and forwarded to No. 5 Aircraft Depot, WAGGA.

5 P.40E's 41 - 5617
5646
388 41-5368
369 41-5349
24817

2. It is required that you take the necessary action to have these aircraft delivered to No. 5 A.D. WAGGA and advise this Headquarters when action has been completed.

Two USAFIA documents above, the first dated 6 March 1942, separated by a month, listing all assigned P-40E/E-1s and those lost by the 8th Pursuit Squadron. Note #55 (41-55) was also lost later 31 March 1942 and CW# converted to FY41 Serials where required. [*Excerpt USAF AHRA Reels*].

Following on from the previous page of documents, it seems that **P-40E-1 41-24861** was not a write-off, for it did not become one of some 22 P-40E/E-1 aircraft held by the 43rd Material Squadron of the 49th Pursuit Group, nor on a Wagga Wagga Salvage list. However, having suffered substantial damage as eluded per *"probable dismantling of aircraft for salvage"* in the cypher dated 7 March 1942, it was not flyable. Therefore, it could be assumed that it languished at Laverton for some weeks before either being sent to Wagga Wagga or to Geelong (USAAF 4th Air Depot) for repairs. Thus, it missed out on its Northern Territory deployment with its parent unit.



TO CO AAF MELBOURNE

T.O.O. 0100/Z/20 Receipt Despatch

Time of 0233/Z/20

FROM US ERECTION AMBERLEY

System BY W/T

US 3 20/6

REFERENCE AIR 486 NO FIXED GUNS FOR P40E AIRCRAFT 41-24861 (.)

RECOMMEND COMPLETE SET ACCOMPANY SAID AIRCRAFT SIGNED HOFFMAN

IMPORTANT

RECEIVED 20 JUN 1942 A.A.F. S.R.P.A.

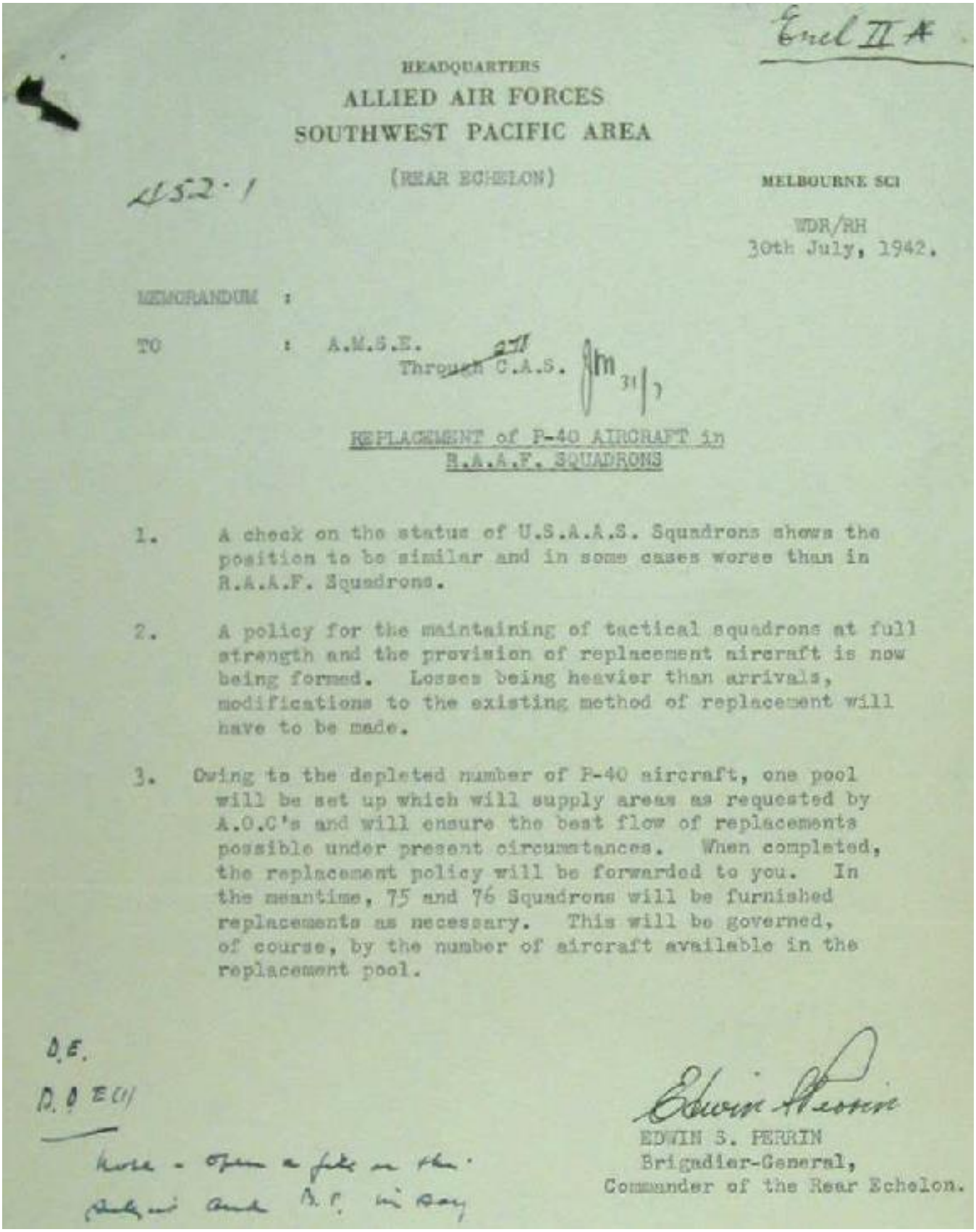
USAAF Erection centre at Amberley states P-40E-1 41-24861 is *sans* guns. [Excerpt *USAF AHRA Reel*].

On 20 June 1942, **P-40E-1 41-24861** resurfaces at the USAAF Erection Centre at Amberley *sans* guns. If it had been sent to 8th Fighter Squadron in May 1942 after repairs at Geelong or Wagga Wagga, it would not have arrived at Amberley, since all airframe or mechanical work of the 49th Fighter Group's assigned P-40E/E-1s were performed at Adelaide River in the Northern Territory by the 43rd Service Squadron.[229]

At this time the number of P-40E/E-1s on strength for the 49th Fighter Group had bottomed to just 68 aircraft on strength, with a further 10 new P-40E-1s (ex RAAF DA3 P-40E-1s being repaid) arriving two days later.

A further P-40E was returned to service by the 43rd Service Squadron the same day after previously considered a salvageable airframe from an earlier accident on 5 June 1942.

With limited new P-40E-1 coming in after this date drying up, it may have been decided to turn this troubled aircraft over to the Training and Replacement Pool based in Garbutt, Townsville later in June 1942.



Encl II A

HEADQUARTERS
ALLIED AIR FORCES
SOUTHWEST PACIFIC AREA
(REAR ECHELON)

452.1

MELBOURNE SCI

WDR/RH
30th July, 1942.

MEMORANDUM :

TO : A.M.S.E.
Through C.A.S.

REPLACEMENT of P-40 AIRCRAFT in R.A.A.F. SQUADRONS

1. A check on the status of U.S.A.A.S. Squadrons shows the position to be similar and in some cases worse than in R.A.A.F. Squadrons.

2. A policy for the maintaining of tactical squadrons at full strength and the provision of replacement aircraft is now being formed. Losses being heavier than arrivals, modifications to the existing method of replacement will have to be made.

3. Owing to the depleted number of P-40 aircraft, one pool will be set up which will supply areas as requested by A.O.C's and will ensure the best flow of replacements possible under present circumstances. When completed, the replacement policy will be forwarded to you. In the meantime, 75 and 76 Squadrons will be furnished replacements as necessary. This will be governed, of course, by the number of aircraft available in the replacement pool.

D.E.
D.D.E.(I)

Edwin Perrin
EDWIN S. PERRIN
Brigadier-General,
Commander of the Rear Echelon.

Establishment of a joint Pool of USAAF/RAAF P-40E/E-1s at Townsville. [*NAA 9/42/53*].

The last direct supply of eight P-40E-1s had only arrived just over a week prior on 20 August 1942, ending with P-40E-1 **41-36249**(**A29-150**). Most of these had had some limited service with the 49thFG after being delivered in June 1942 and could not be considered "new". *One of those P-40E-1* ***41-36240*** *(**A29-145**), crashed on delivery when the pilot forced landed the aircraft on its ferry flight 30th August 1942 at Charleville Qld on route to 3AD Amberley. Repaired it was reissued to the 9th FS/ 49thFG[230] as #73 and later reissued again with the 8th FS/49thFG as #42.*

RECORD CARD—AIRFRAMES, AERO ENGINES, MECHANICAL TRANSPORT AND MARINE CRAFT. R.A.A.F. Form E/E.88. (June, 1938.)

Type KITTYHAWK No. A29-145 Chassis / Airframe / Engine } Fitted ALLISON No.

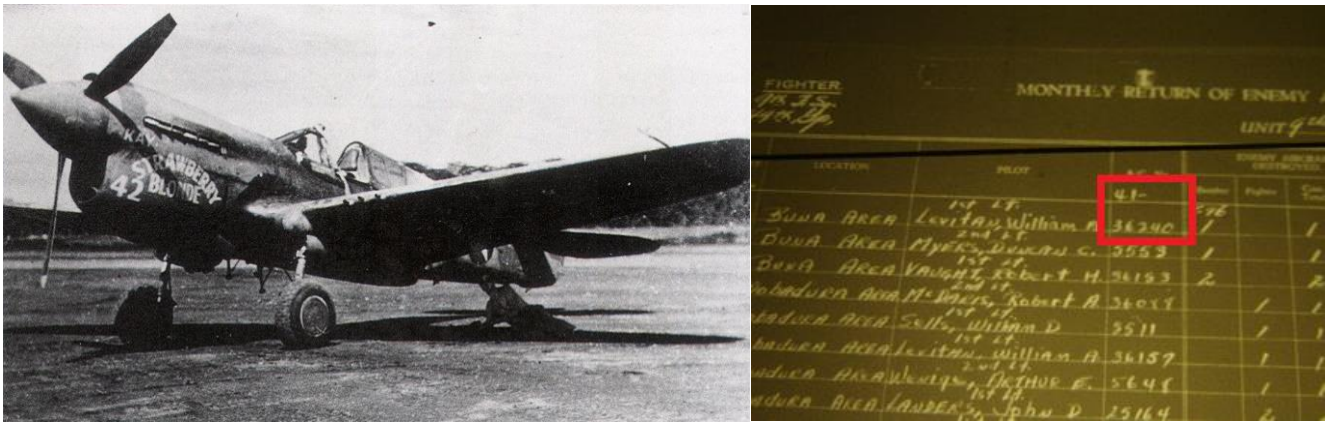
Order No. LATE 41/36240

Received from U.S.A.A.S. Date Received 20/8/42.

HISTORY (MOVEMENTS, CASUALTIES, Etc.) 5M—3.42 3903

Date.	Details.	Authority.	Date.	Details.	Authority.
20·8·42	Allotted R.A.A.F. ex U.S.A.A.S.	Q.O. 686 20/8			
21·8·42	" 76 SQD	NEAQ 119 21/8			
30·8·42	a/c dod not arrive ex US Pool Charleville	NEAQ 488 30/8			
	a/c crashed while en route RAAF & consequently not received. Next P40E a/c assigned RAAF to be renumbered A29-172				

E/E-88 Card for A29-145, note statement saying renumber the next one as A29-145! [*NAA 9/42/53*].



P-40E-1 41-36240 ex A29-145 at Doburaba PNG 3/43 now with 8thFS, and right is a 9thFS Report 12/42. [*Author's collection*].

Thus, no A29-145 ever served in the RAAF, nor was it replaced by a second as requested on E/E-88Card. That supply of seven aircraft ended the supply of new Redirected RAF DA3 P-40E-1 aircraft held by the USAFIA to the RAAF at a total of 67 new P-40E-1 airframes that supplied in total.

On 28 August 1942, the RAAF requested a further minimum 9 replacement aircraft following heavy losses at Milne Bay from the USAAF. This had already followed an original request of six aircraft initially a week earlier, followed then by an addition seven aircraft attrition requirement by 25 August 1942. The Pool of new P-40E-1s was drying up fast.
On 2 September 1942 the 49th FG were advising the RAAF that from the 43rd Material Squadron based at Adelaide River, some 8 reworked and overhauled P-40E/E-1 aircraft were being ferried from Batchelor to Townsville by RAAF pilots. They were leaving on 3 September 1942, led by F/Lt Stark.

Two of these crashed on take-off from Batchelor, P-40E-1s **41-24818** and **41-24876**. But no further details available until on 2 September 1942 when a ninth aircraft, **P-40E-1 41-24861,** was received by 12 Repair and Salvage Unit (12RSU Det G) RAAF based detachment at Garbutt North Queensland from the USAAF Pool based also at Garbutt, Townsville. That would signify that it was part of the then Fighter Training Pool located there at this time and explains why there

is little information or history within the 49th Fighter Group on this subunit of 5th Fighter Command. *Mind you, that is not unusual, to say the least, with most of the Group was still in the Northern Territory.*

As part of a Pooling Arrangement reached a month prior in August 1942 for reinforcement P-40E/E-1s held in reserve by the USAAF, losses by the RAAF at Milne Bay needed replacements.

RECORD CARD—AIRFRAMES, AERO ENGINES, MECHANICAL TRANSPORT AND MARINE CRAFT. R.A.A.F. Form E/E. 88. (June, 1938.)

Type KITTYHAWK No. A29-158 Chassis / Airframe / Engine Fitted ALLISON No.
Order No. LATE 41/24861
Received from U.S.A. Date Received 7/9/42

HISTORY (MOVEMENTS, CASUALTIES, Etc.).

Date.	Details.	Authority.	Date.	Details.	Authority.
7.9.42	Rec 12RSU ex USAFIA	NEAQ807 7/9	26-10-42	Serv at 76 SQ	76Q09 26/10
10-9-42	Allotted 76 Sqd ex 12RSU	NEA Q895 10/9	14-11-42	allotted 43 Mat SQ ex 76 SQ Repair	NWAQ0433 14/11
11.9.42	Est. ready 10 days at 12RSU	ERP. 11/9	23-11-42	above allotment cancelled	NWAQ0481 23/11
14-9-42	U/S at 12RSU	TQ020 14/9	22-11-42	Issued 3AD ex 76 SQ	76Q037
18.9.42	Est. ready 3 days at 12RSU	ERP. 18/9	19.11.42	Rec. 3AD ex 76SQ.	ERP 19/11
				Serv. modif. at 3AD	
21-9-42	U/S at 12RSU Garbutt	12Q027 21/9	26.11.42	" " " "	ERP 26/11
25.9.42	Rec. 12RSU Charters Towers ex	12RSQ03 25/9	13-11-42	allotted 3AD ex 76 SQ	HQ0232 13/11
	12RSU Garbutt		3.12.42	Serv. modif. at 3AD	ERP 3/12
25.9.42	Est ready 3 days @ 12RSU C.Towers.	ERP. 25/9	14-12-42	Est. ready 10-21 days at 3AD	" 14/12
1.10.42	Allotted 76 SQ ex 12RSU.	HQ Q0337 1/10	21-12-42	" " 3 days at "	Q075 21/12
28.9.42	Issued 76SQ ex 12RSU Ch. Towers	12RSQ06 28/9	26.12.42	Iss. 76 SQ ex. 3.A.D.	26/12
7-10-42	Recd 76 SQ 12RSU C.T.	76Q102 7/10	31-12-42	Recd 76 SQ ex 3AD	76Q011 31/12
7-10-42	Held at 76SQ ~~Batchelor~~	76Q102 7/10	25-1-43	allotted 4RSU ex 76 SQ Exchange	24 NWAQ01138 25/1
12-10-42	u/s at 76SQ	76Q211 12/10	27-1-43	Issued 4RSU ex 76 SQ	76Q0147 27/1
19-10-42	u/s at 76 SQ	76Q01 19/10	27-1-43	Rec. 4RSU ex 76 SQ	4RSQ006 27/1
			14-2-43	Allotted 76SQ ex 4RSU.	Q0260 14/2

5M—12.41 1404 KITTYHAWK A29-158

Per its RAAF Form E/E-88 Card, that P-40E-1 41-24861 became A29-158 in RAAF Service. [*NAA 9/42/53*].

Its first three weeks in RAAF service showed that it was unserviceable until flown from 12RSU Det G (Garbutt) to 12 RSU Charters Towers on 25 September 1942. It would be finally issued to 76 (F)Sqn RAAF who had arrived ex Milne Bay at Batchelor on 30 September 1942. A29-158 was received on 7 October 1942 at Batchelor Strip, Northern Territory. Again, A29-158 went unserviceable until 26 October 1942. Meanwhile the rest of the Squadron had relocated their aircraft to Strauss Field further up the road to Darwin on 9 October 1942.

On 11 November 1942, it was allotted to the 43rd Service Squadron USAAF at Adelaide River, but this was cancelled with the aircraft Issued and received by 3AD RAAF at Amberley Queensland on 19 November 1942. It must have had quite a few problems. On 31 December 1942 it was received back at No 76 (F) Squadron. Within weeks, it was received by No 4 RSU on 27 January 1943. It was allotted 14 February 1943 back to No 76 (F) Sqn.

Per 76 Squadron records, the aircraft was deployed to Potshot and Onslow Strips in Western Australia during February to May 1943 before converting to P-40Ms. Here is the last two months use of A29-158 with them:

- 06/04/43 F/Lt Lovell
- 08/04/43 P/O Loudon
- 10/04/43 Sgt Booth
- 20/04/43 F/Lt Lovell
- 0205/43 Sgt Weidenbach (Potshot to Perth)
- 05/05/43 Sgt Weidenbach (Perth to Kalgoorlie)
- 06/05/43 P/O Loudon (Kalgoorlie to Port Pirie)
- 07/05/43 F/O Harrison (Port Pirie to Mildura)

A29-158 was received officially by 2OTU (Operational Training Unit) at Mildura on 9 May 1943, some two days after it was delivered there from Western Australia.

At 2310hrs on 4 August 1943, whilst making what was described as an excellent landing at Mildura, the starboard oleo leg retracted after a landing run of 200 yards, causing the aircraft to swing off the strip on its starboard wing. The Pilot, F/Lt K H Cooper Serv#400078 was not injured. It, as there are scant details on the E/E-88 card, appears that the aircraft was repaired in unit.

F/Sgt Frank Donald Piggott Serv#13480 ex 2BAGS Staff pilot arrived at 2OTU on 8 August 1943 for conversion to P-40s.

F/Sgt Frank Donald Piggott in 1941. [*NAA: 166/32/200*].

Initially he was instructed in Wirraways after not flying one for a year, commencing the following day in A20-159 with his instructor, F/O Robert "Bob" Crawford of 75 Squadron fame. The following day on a second dual flight in A20-403 with Bob Crawford, he went solo. There on, his instructors included future and past P-40 and Spitfire pilots such as Cundy, Bowes, Spence, Watson and Kimpton over the next few weeks in September and October 1943.

A selection of P-40E/E-1s aircraft included: ***A29-23/A29-28/A29-33/A29-35/A29-58/ A29-66/A29-80/A29-101/A29-102/A29-107/A29-138/A29-146/A29-155*** *and* ***A29-162****. His last successful flight was on 5 October 1943 in* ***A29-28.*** *He also regularly flew P-40E-1 A29-90 up to four times prior in September 1943, which survives this day and is being restored at this time after years being wrongly identified as P-40E* ***A29-28****. A weird coincidence of history in this story it seems.*

On his next flight the next day, at 0820hrs Eastern Standard time, while performing a series of normal aerobatic exercises, he was observed at 5000 feet doing a series of slow rolls, when on the third such roll, whilst on his back, the nose appeared to drop and he appeared to spin vertically, turning slowly, but losing height rapidly.

The aircraft impacted and exploded into flames 3 miles northwest of Mildura Aerodrome, killing the pilot instantly. P-40E-1 **A29-158** was noted on its E/E-88 Card with AMSE Approval to Write-off per File#9/16/1140 23/10/43, with Allison V1710-39 Engine #5689 also being written off. Frank had up to this flight some 50.30 hours logged on Kittyhawks.

A burial service was performed the following day with F/Sgt Frank Donald Piggott Serv#13480 being interned in grave C.A.14 at Mildura War Cemetery.

Sources:

NAA Title [RAAF Station - Canberra] - Eighth Pursuit Squadron US Army Air Corps Operations at Canberra Series number A8666 Control symbol 3/215/AIR Item ID 3493864

NAA Title AMSE [Air Member of Supply & Equipment] - Replacement of P40 aircraft - policy file A705 Control symbol 9/42/53 Item ID164534

NAA Title PIGGOTT, Frank Donald - (Flight Sergeant); Service Number - 13480; File type - Casualty - Repatriation; Aircraft - Kittyhawk A29-158; Place - Mildura, Vic; Date - 6 October 1943

NAA RAAF A50 History Files

- Amberley SHF
- Laverton SHF
- 1AD Laverton
- Number 3 Aircraft Depot
- Number 5 Squadron
- Number 76 Squadron

USAF AHRA Microfilm Reels ACR18 to ACR 29 IRC Reels/ A7000-8000series per excerpts

- 5th Air Force
- USAFIA

Collective research by Buz Busby and myself

11 years on, is this the end of the ADF-Serials Telegraph?

Whilst we *Editors x 3* are leaving the building for a while or perhaps permanently, *I for one need to get my orphaned P-40E/K/M research done* and in doing so, hopefully getting a refresh of excitement that has been long missed.

Thus, it may well be a long time before another ADF-Serials Telegraph Issue is ever considered and published in the foreseeable future. Until then, from me (Gordy), JB and Shep, we say ciao and thank you.

End Notes

Honourable Target Lost Face

[1] The flying squadrons of the 90th Bombardment Group were the 319th, 320th, 321st and 400th Bombardment Squadrons.
[2] Under the Southern Cross, p59.
[3] CMD/G2/16 Jan (1943) in RAAF Command Operational Signals 29.12.42 To 12.8.45.
[4] CMD/G2/17 Jan (1943), ibid.
[5] Under the Southern Cross, pp52, 53.
[6] FEN/MS1/4 Feb.
[7] FEN/MS1/5 Feb.
[8] Under the Southern Cross, p59.
[9] Australia's Liberators, p9.
[10] FEN/MR1/2 Mar. Livingstone identified this aircraft as 41-23753 "*Lady Millie*": Under the Southern Cross, p59.
[11] DA/G1/20 Dec.
[12] FEN/MS1/21 Dec.
[13] FEN/MS2/21 Dec.
[14] FEN/MS2/21 Dec.
[15] This is 9 x 500-lb bombs short of the planned load which means that duty 6, the aircraft that RTB'd and was allegedly replaced and one of the six aircraft which was supposed to carry that load-out, did not reach the target.
[16] FEN/B1/21 Dec.

Sabre Jet: The Final Years

[17] A total of 112 CAC Avon Sabres had been built by mid July 1961.

- 1 x Prototype (A94-101: ff 03/08/53)
- 22 x Mk30 (A94-901 – A94-922 Ordered 1951 and delivered Aug 1954 to Jul 1955)
- 20 x Mk31 (A94-923 – A94-942 Ordered 1951 and delivered Jul 1955 to Sept 1956)
- 28 x Mk32 (A94-943 – A94-970 Ordered 1951 and delivered Sept 1956 to Jul 1957)
- 20 x Mk32 (A94-971 – A94-990 Ordered 1955 and delivered Jul 1957 to Dec 1958)
- 21 x Mk32 (A94-351 – A94-371 Ordered 1957 and delivered Oct 1959 to Dec 1961)

[18] Breakdown of the actual **27** Indonesian Assigned ex RAAF/RMAF aircraft to TNI-AU

Serial	Last Unit	Class (*) date	2OCU/ISAU	3AD	Indonesia	TNI-AU#
A94-352	2OCU/BS WlmT	(C8)25/06/71	2/05/1972	Oct 70	Dam/Ret Aus/ARDU 17/04/73 PRF 2OCU 03/04/73	N/A
A94-356	2OCU	(C6) 05/08/71	2/05/1972	Nov 72	**RMAF**	7/02/1974
A94-361*	5OTU/2OCU	Was earmarked RMAF 19/08/69	29/08/1972	Jan 73	7/03/1973	F-8601
A94-366	5OTU/2OCU	(C6) 05/08/71	2/05/1972	Nov 72	5/10/1973	F-8602
A94-368	5OTU/2OCU	(C8) 05/08/71	2/05/1972	Nov 72	7/03/1973	F-8603
A94-370	2OCU/BS WlmT	(C8)25/06/71	28/04/1972	???	7/12/1972	F-8618
A94-945	5OTU/2OCU	(C8) 05/08/71	2/05/1972	Nov 72	7/03/1973	F-8604
A94-949	5OTU/2OCU	(C8) 05/08/71	2/05/1972	Nov 72	7/03/1973	F-8605
A94-952	2OCU	(C8) 05/08/71	2/05/1972	Dec 72	7/03/1973	F-8606
A94-955	5OTU/BS WlmT/2OCU	(C8)25/06/71	2/05/1972	Nov 72	9/11/1973	F-8617
A94-957	BS WlmT	(C8)15/03/71	2/05/1972	Dec 72	7/03/1973	F-8607
A94-963	5OTU/BS WlmT	(C8)25/06/71	2/05/1972	Dec 72	7/03/1973	F-8608
A94-968	5OTU	(C8)16/07/71	2/05/1972	Oct 72	7/03/1973	F-8609
A94-969	ARDU/WlmT	(C7)20/09/71	2/05/1972	Oct 72	7/03/1973	F-8610
A94-971	5OTU/BS WlmT	(C8)25/06/71	2/05/1972	Oct 72	7/03/1973	F-8611
A94-972	5OTU	(C8)16/07/71	2/05/1972	Nov 72	7/03/1973	F-8612
A94-975	2OCU	(C8) 05/08/71	2/05/1972	Dec 72	7/03/1973	F-8613
A94-980	5OTU/BS WlmT	(C8)25/06/71	2/05/1972	Dec 72	7/03/1973	F-8614
A94-988	5OTU	(C6)27/07/71	2/05/1972	Nov 72	7/03/1973	F-8615
A94-990	5OTU/BS WlmT/2OCU	(C8)25/06/71	2/05/1972	Jan 73	7/03/1973	F-8616
A94-369	RMAF	19/08/1969				F-8619
A94-978	RMAF	8/12/1971				F-8620

A94-979	RMAF	8/12/1971				F-8621
A94-353	RMAF	19/08/1969				F-8622
A94-987	RMAF	8/12/1971				F-8623
A94-922	Engine only					
A94-941	Engine only					

*Was originally earmarked RMAF 19/08/1969(Air Spare) Canc 26/09/1969 2OCU 29/08/1972, then 14Sqn TNI-AU 07/03/1973

RAAF WWII IN COLOUR No.13 – RAAF Venturas

[19] Lockheed Ventura (e-monsite.com)
[20] J M Andrade, *US Military Aircraft Designations and Serials Since 1909*, Midland Counties, Leicester, 1979, p.7.
[21] A Pearcy, *Lend-Lease Aircraft in WWII*, Airlife, Shrewsbury, 1996, p.159.
[22] NAA A1695 7/205/EQ Pt.2 M.140 30 DEC 1943; A1695 6/205/EQ Pt.2(151A) 14 JUL 1943 and (171A) 21 MAR 1944.
[23] B Robertson, *British Military Aircraft Serials 1878-1987*, Midland Counties, Leicester, 1987, p.125.
[24] Robertson, p.128.
[25] Andrade, p.237.
[26] RAAF A59 E/E.88 Aircraft Status Cards.
[27] RAAF L/L B-34 acquisition details per MAC Air Case 126 Indent 927A Air Project # DA-152, covered by NAA A1695 7/205/EQ Pt.2. RAF B-34 L/L acquisition was Mk.IIA requisition 41018, Contract DA-152, in Pearcy p.159.
[28] NAA A10207/B24 Attachment 'A', 6 APR 1944.
[29] NAA A705/9/57/2 Pt.2, AUSTAIR WASH message X.183, 4 APR 1943.
[30] NAA A1196 1/501/519(1A), AUSTAIR WASH WL789, 28 JAN 1944; NAA A1695 7/205/EQ Pt.2 (156A), 25 JAN 1944.
[31] The twenty RB-34s were delivered in three batches of 10, 7 and 3 aircraft. Although the aircraft were delivered to Australia in random USAAF serial order, RAAF serials were issued in sequence with the USAAF serials in each batch. VENTURA - The Lockheed File (adastron.com)
[32] A59 E/E.88 Status Cards, it appears at least a further five were store at Tocumwal.
[33] NAA A1196 1/501/519(1A), AUSTAIR WASH WL789, 28 JAN 1944.
[34] NAA A1695 7/205/EQ Pt.2 (174B), 19 FEB 1944.
[35] Pearcy, p.86.
[36] Andrade, p.237.
[37] Robertson, p.126.
[38] Pearcy, p.137.
[39] I K Baker, *Aviation History Colouring Book 53, Hudson Camouflage Special*, Queenscliff Vic, 2004, AHCB #53, p.5.
[40] Mark Harbour, email to author, 10 OCT 2021.
[41] I K Baker, *Aviation History Colouring Book 51, P-40 Camouflage Special*, Queenscliff Vic, 2003, AHCB #51, p.5.
[42] Lockheed Ventura (e-monsite.com)
[43] Pearcy, p.13.
[44] ADF Serials - Ventura (adf-serials.com.au)
[45] Lockheed PV Ventura/Harpoon by Jack McKillop (microworks.net)
[46] Lockheed Ventura (e-monsite.com) claims 108 went to Canada and 64 to South Africa, and with ten crashing before delivery, only ***ten*** reached the RAF. This cannot be possible, as the *adf-serials* listing gives at least 30 serving on 464SQN in the Feltwell Wing. Robertson, p.126, gives ***41*** serving on RAF units.
[47] AHCB #51, p.3, addressed this. Gordon Birkett had the signal from Archives: NAA A8666 3/215/AIR (54A) HQUSAFIA message 2342 of 28 MAR 1942.
[48] R D & V G Archer, *USAAF Aircraft Markings & Camouflage 1941-47,* Schiffer, Atglen PA, 1997, p.70.
[49] M Laird, *Classic Warbirds – Pacific Twins*, Classic Warbirds No.8, Ventura Pubs, Wellington NZ, 2002, p.60; vencol (hobbyvista.com)
[50] I K Baker, *Aviation History Colouring Book No.51*, 'P-40 Camouflage Special', Queenscliff, 2003, p.7, provides details of Du Pont colours and equivalents. *Sky* was difficult to match, and colours such as *Aircraft Gray* and *Pastel Blue* were used. Bell Vol.1, p.95 gives the FS equivalents to the standard USAAF camouflage colours, stating *Dark OD* 41 is FS34087, but is slightly redder tending towards 34086.
[51] B-17 and Ventura art of Randy McCraw (wordpress.com)
[52] C L Scrivner & W E Scarborough, *PV-1 Ventura in Action,* Squadron/Signal No.48, Carrollton TX, 1981, p.6.
[53] Andrade, p.52. Although all Reverse Lend-Lease Venturas back to the USAAF were known by Lockheed as 'Model 137s', they were referred to by the USAAF as the 'Model 37' or Lexington. The USAAF Restricted 'R' prefix letter was in use from 1942 until 1947; Andrade, p.7.
[54] Lockheed Ventura (e-monsite.com)
[55] 'M' Midland, TX; Bombardier-Navigator Flying Training (fuselagecodes.com). 'E' indicated Eglin in FA; Flexible Gunnery Schools (fuselagecodes.com)
[56] 1941 USAAF Serial Numbers (41-30848 to 41-39600) (joebaugher.com)
[57] Pearcy, p.13.
[58] Bombardier-Navigator Flying Training (fuselagecodes.com)
[59] Flexible Gunnery Schools (fuselagecodes.com)
[60] NAA A1695 7/205/EQ Pt.2 (202A), 25 APR 1944. This document also refers to some Vengeances as the "RA-31", and to the Shrike as the "RA-25A".
[61] NAA A1695 7/205/EQ Pt.2 (M.140), 30 DEC 1943.
[62] NAA A1695 7/205/EQ Pt.2 (126A), 11 DEC 1943.
[63] NAA A10207/B24, unnumbered folios dated 31 DEC 1943 and 6 APR 1944.
[64] 1941 USAAF Serial Numbers (41-30848 to 41-39600) (joebaugher.com)
[65] NAA A1695 7/205/EQ Pt.2 (143A), 3 JAN 1944.
[66] Laird, pp.32-33.
[67] NAA AA1966/5 377, RAAF Manual ACD 2005(2) of JUN 1945.
[68] ADF Serials Telegraph (adf-serials.com.au)
[69] 1AD A.50 Unit History, JUL 1943.
[70] 5AD A.50 Unit History, NOV 1943-APR 1944.
[71] The E/E.88s of two 3CU Ansons are marked for "radar calibration". These aircraft AX237 and EF417 did not undergo the 5AD ASV modifications, so radar trials work may be of a different nature in radar development.
[72] RAAF list "Distribution of Anson Aeroplanes fitted with ASV Mk.II (Aust) as at 14 APR 1945" gives the serials of 25 Ansons, but an earlier 71SQN aircraft AX619 had its ASV swapped over to DJ330 in NOV 1943.

[73] NAA A11093 452/A59(37A) of 5 MAY 1944, p.3.
[74] 13SQN A.50 Unit History, DEC 1943-MAY 1944.
[75] NAA A11093 452/A59(48A) of 21 MAY 1944.
[76] K Gogler, *We Never Disappoint, A History of 7 SQN RAAF 1940-1945*, Air Power Development Centre, Canberra, 2012, pp.105-6.
[77] D Vincent, *The RAAF Hudson Story Book One*, self-published, Adelaide, 1999, p.25; Andrade, p.34.
[78] Scrivner & Scarborough, p.5.
[79] Andrade, pp.7, 53.
[80] Archer & Archer, p.106.
[81] J M Elliott, *The Official USN & USMC Aircraft Colour Guide Vol 2 1940-49,* Monogram, Sturbridge MA, 1998, p.70.
[82] Lockheed Ventura (e-monsite.com)
[83] D Bell, *Air Force Colors Vol.1 1926-1942*, Squadron/Signal, Carrollton TX, 1995, p.95.
[84] R J Francillon, *The RAAF & RNZAF in the Pacific*, Aero Pictorials 3, Aero Publishers, Fallbrook CA, 1970, p.8.
[85] B F Hussey, "The USN and the Neutrality Patrol, and Atlantic Fleet". US Naval Academy Annapolis, Maryland, 1991. apps.dtic.mil ADA 245396
[86] www.norpacwar.com/pv-1-painting-schemes
[87] Archer & Archer, p.8; Elliott pp.70-76.
[88] PV-1 losses | norpacwar
[89] Elliott, pp.76, 81.
[90] Scrivner & Scarborough, p.5.
[91] Andrade, p.208.
[92] Scrivner & Scarborough, p.7.
[93] Lockheed PV Ventura / Harpoon by Jack McKillop (microworks.net)
[94] Scrivner & Scarborough, p.7.
[95] Laird, p.30.
[96] www.201squadronassociation.com/ *"Remembering the Kipper Fleet, RAAF Coastal Command in WWII",* 21 JUN 2014.
[97] J C Stanaway, *Vega Ventura – The Operational Story of Lockheed's Lucky Star*, Schiffer, Atglen PA, 1996, p.24.
[98] Scrivner & Scarborough, p.27.
[99] "Flying the Empire Express", www.usni.org/magazines/naval-history-magazine/2017/february/flying-empire-express
[100] Good sources of information on the USN North Pacific PV-1 operations can be found at the *norpacwar* sites: Hedron | norpacwar; VB-136, 1st tour | norpacwar; VB-135 1st tour | norpacwar; PV-1 losses | norpacwar
[101] Scrivner & Scarborough, p.27.
[102] Scrivner & Scarborough, pp.32-33.
[103] Stanaway, p.52
[104] *Units of the RAAF, A Concise History, Vol.3 Bomber Units*, AGPS, Canberra, 1995, pp.135-139.
[105] *Units of the RAAF, A Concise History, Vol.4 Maritime & Transport Units*, AGPS, Canberra, 1995, pp.104-110.
[106] This was changed by Air Ministry Order **(AMO) A.664/42** of 2 JUL 1942. J Tanner, *British Aviation Colours of World War Two*, Arms & Armour Press, London, 1986, p.21. When this AMO was amended by **AMO A.1092** on 8 OCT 1942, para 2(iv) added: "American types of aircraft will be seen in both USAAC [sic] and USN Air Corps [sic] camouflage and colouring schemes carrying British markings. British types of aircraft will be seen in British camouflage and colouring schemes carrying American markings." Tanner, p.26.
[107] US Navy and US Marine Corps BuNos--Third Series (30147 to 39998) (joebaugher.com)
[108] Scrivner & Scarborough, p.14.
[109] US Navy and US Marine Corps BuNos--Third Series (21192 to 30146) (joebaugher.com)
[110] www.norpacwar.com/pv-1-painting-schemes
[111] Scrivner & Scarborough, p.7.
[112] Elliott, pp.190-194.
[113] 1000aircraftphotos.com
[114] B-17 and Ventura art of Randy McCraw (wordpress.com)
[115] The *Red* surround of the USN star and bars was only briefly in force over 28 JUN 1943 until 31 JUL 1943; Elliott, p.70.
[116] http://www.usaaf-noseart.co.uk/plane
[117] Elliott, pp.190-194.
[118] I K Baker, *Aviation History Colouring Book 32, USN Camouflage & Insignia, 1941-47*, Queenscliff Vic, 1997, p.18.
[119] Elliott, p.35.
[120] Laird, p.60.
[121] Elliott, p.35.
[122] Welcome to ADF Serials (adf-serials.com.au)
[123] US Navy and US Marine Corps BuNos--Third Series (30147 to 39998) (joebaugher.com)
[124] Laird, pp.56-57.
[125] Laird, p.32.
[126] WT Live // Camouflage by Aotea (warthunder.com)
[127] B-17 and Ventura art of Randy McCraw (wordpress.com)
[128] RAF ADM.332 (*Issue 3*) filed as RAAFHQ 150/4/852(12), and also referenced as CD44/41.
[129] P Lucas, *Camouflage & Markings No.2, Scale Aircraft Monographs*, Guideline, Luton, Beds, 2000, p.9.
[130] RAAFHQ file 1/501/329(53A), SAS.9984 also listed as DTS 368/41, of 23 DEC 1941. This message also directed that RAAF *Earth Brown* (K3/178) and *Foliage Green* (K3/177) be used instead of RAF *Dark Earth* and *Dark Green*. RAAFHQ file 1/501/329(63A), SAS.7396 also listed as DTS 280/42, of 18 JUN 1942
[131] RAAFHQ Aircraft General Instruction No.C.11 (*Issue 4*), Appendix I, of 31 JUL 1942.
[132] Australia House London letter AB.2426 700/27, filed as RAAFHQ 1/501/281(25A), of 4 DEC 1939.
[133] Australian DAP production of the Beaufort was unique – odd serial-numbered aircraft were built at Fisherman's Bend, the even numbers at Mascot. Also Fisherman's Bend aircraft had the A.D.1159 'A' pattern, and Mascot aircraft had 'B' pattern, with both schemes retained into 1943 production, until replaced by overall *Foliage Green* in 1944. These 1942 listings of course do not include the Ventura.
[134] In this RAAF 1941 list, of course, neither the Kittyhawk nor Vengeance were listed.
[135] Air Ministry Directorate of Technical Development (DTD) Air Diagram 1159, undated c JUN 1936, illustrates the Blenheim as the example for this pattern, which was adopted in the RAAF by the Beaufort, Beaufighter, Anson, Hudson and ultimately the Ventura. While AHCB #53 pp.1-4, mentions this as the 'B' scheme, this is in variance to the DTD Diagram, which AHCB #14, p.2, identifies as the 'A' scheme.
[136] J Goulding & R Jones, *Camouflage & Markings RAF Fighter Command 1936-1945*, Doubleday, New York, 1971, foreword; Lucas p.85.

[137] Lucas, p.79. The MAP 33B/ stores reference series are stock numbers with the last three digits identifying the size of the paint can – so on the RAF Directorate of Technical Development (DTD) 314 scale, *Dark Green* 33B/201 was for a half-gallon can of varnish, 33B/202 a one-gallon can, and 33B/203 a five-gallon container. Similarly the various size cans for *Dark Earth* were 33B/198 to 33B/200. The DTD specifications for compliance were DTD 314 (matt pigmented oil varnishes), DTD 308 (matt cellulose finish), or DTD 83A (aeroplane doping schemes); *Aircraft Design Memorandum No.332 (Issue 3),* CD44/41, para.4, of 15 NOV 1940, filed on RAAFHQ 150/4/852(12).
[138] Goulding & Jones, p.12.
[139] Equivalent colour references provided in Goulding & Jones, p.48; and Lucas, pp.85-88.
[140] Bell, *Vol.1,* p.84; Lucas, p.88.
[141] www.norpacwar.com/pv-1-painting-schemes
[142] RAAFHQ AMEM D/DTS 1/501/329 SAS 13552 of 8 JUL 1943, specified 32" *Blue* roundel, 12" *White*, i.e. 3:8 (approx 2:5); fin flash 24" (high), 16" wide (8" each colour). If hurriedly repainted, the type-C flash would be asymmetric with 13" *White*, 11" *Blue*.
[143] Elliott, p.34.
[144] USN roundels, or cockades, were sized in 5" increments. Elliott, p.67.
[145] *Units of the RAAF, A Concise History, Vol.3 Bomber Units*, AGPS, Canberra, 1995, pp.38-41.
[146] RAAFHQ Memo 392/44, Ref 25/2/32 of 6 APR 1944, filed as 1/501/329(143A).
[147] 13SQN A.50 Unit History, 31 MAY 1944.
[148] These marking dimensions obtained by mensuration.
[149] Elliott, p.76.
[150] VENTURA - The Lockheed File (adastron.com)
[151] Elliott pp.76, 81.
[152] USN directive SR2c dated 5 JAN 1943 and effective from 1 FEB 1943, cited in Elliott, p.69.
[153] The spaniel was sketched by Disney animator Joe Grant in 1937, based on his own dog called 'Lady'. Grant envisioned a short cartoon about a dog, and by 1940 Walt Disney had imagined expanding the short into a feature and adding a mongrel who might be named Homer or Rags or Bozo, but decided to just go with Tramp. In 1943, Walt read Ward Greene's short story "Happy Dan: The Cynical Dog" in Cosmopolitan magazine, the tale of a stray who revels in his ability to manipulate humans all over town into giving him free meals. Disney bought the film rights, but it took another eight years to merge the dog tales into the *"Lady and the Tramp"* screenplay. In 1953, Walt had Greene expand his story into a novel, so that moviegoers would be familiar with the tale by the time the movie came out in 1955.
[154] Navy ALNAV12 of 28 JUN 1943. Elliott, pp.70-76; and Army AN-I-9b of 14 AUG 1943, Archer & Archer p.153.
[155] It is unlikely the RAAF roundel was applied on reassembly in Hawaii, before the ferry to Australia, as it appears aircraft were delivered in US markings. However, the incorrect tail flashes might have been applied at this stage, as it is unlikely that 2AD would have reversed the flash colours to *Blue* leading!
[156] Laird, pp.39, 56.
[157] Elliott p.76.
[158] Gogler, pp.105-6.
[159] I K Baker, *Aviation History Colouring Book 79, RAAF Colour Schemes & Markings Part 13b*, Queenscliff Vic, 2014, p.11.
[160] Laird, p.47.
[161] RAAFHQ T.O. AGI Part 3, Section (c), Instruction No.1, *Camouflage Schemes and Identification Markings*, dated 26 MAY 1944, filed as 1/501/5056(1A).
[162] A59-89 E/E.88 Status Card.
[163] A59-102's radar equipment (with the exception of the IFF) was also removed in NOV 1944. A705 231/9/1656 Pt.1 (74A), RAAF HQ postagram TJ.375 (PGM) to RAAF Command and 4CU, of 24 NOV 1944.
[164] VENTURA - The Lockheed File (adastron.com)
[165] W Green & J Fricker, *The Air Forces of the World*, Macdonald, London, 1958, p.22. This 1948 total of 3000 comprised 76 Boomerangs, 307 Kittyhawks, 164 Mosquitoes, 199 Mustangs, 399 Spitfires, 300 Beaufighters, 329 Beauforts, 27 Hudsons, 207 Liberators, 32 Mitchells, 228 Vengeances, 52 Venturas, 52 Catalinas, 12 Kingfishers, 12 Mariners, 450 Ansons, 270 Oxfords, 195 Tiger Moths, and 380 Wirraways. The E/E.88 cards provide different the classes of storage.
[166] US Navy and US Marine Corps BuNos--Third Series (39999 to 50359) (joebaugher.com)
[167] The Monegeetta Monster - The Lockheed File (adastron.com)
[168] The Ventura Ambulance - The Lockheed File (adastron.com)
[169] LOCKHEED VENTURA A59-96 (qam.com.au)
[170] Email to author from Ron Cuskelly QAM, 30 OCT 2021.
[171] www.goodall.com.au/warbirds-directory-v6/lockheed.pdf
[172] A59-73 - The Lockheed File (adastron.com)
[173] www.goodall.com.au/warbirds-directory-v6/lockheed.pdf
[174] www.goodall.com.au/warbirds-directory-v6/lockheed.pdf; US Navy and US Marine Corps BuNos--Third Series (30147 to 39998) (joebaugher.com)
[175] Laird, p.30.
[176] Warbird Registry - Lockheed PV-1 Ventura - A Warbirds Resource Group Site
[177] 1941 USAAF Serial Numbers (41-30848 to 41-39600) (joebaugher.com); Microsoft Word - LOCKHEED.doc (goodall.com.au)
[178] Stanaway, p.5.

Notes Regarding No. 13 Squadron PV-1s

[179] Most of the Cooktown allocations have come from a list inside the front cover of 27OBU's Control Officer's Watch Log and from NEA cypher "out" log book entries for July and August, 1944.
[180] A59-78 returned to 13SQN during mid-September, 1945, after a period with 14ARD. It had been "SF-J" and may have also been re-coded, but due to its return being after wars end, I have chosen to exclude that portion of its service as being outside the scope of this work. A59-81, the former "SF-A" returned to 13SQN in early March, 1945.
[181] RAAF Form E/E.88 Record Card – Airframes, Aero Engines, Mechanical Transport & Marine Craft for A59-95, Aircraft Status Cards – Ventura A59-1 to A59-20, A59-50 to A59-104; NAA: A10297, BLOCK 376.
[182] RAAF Form E/E.88 Record Card – Airframes, Aero Engines, Mechanical Transport & Marine Craft for A59-98, Aircraft Status Cards – Ventura A59-1 to A59-20, A59-50 to A59-104; NAA: A10297, BLOCK 376.
[183] RAAF Form A15, Control Officer's Watch Log, entry of 1740 hours, 20 March, 1945, quotes "A59-86 is VMZFMG" in North Western Area Controller's Log; AWM66, 15/5/2.
[184] RAAF Form E/E.88 Record Card – Airframes, Aero Engines, Mechanical Transport & Marine Craft for A59-86, Aircraft Status Cards – Ventura A59-1 to A59-20, A59-50 to A59-104; NAA: A10297, BLOCK 376.
[185] RAAF Form A123 Serial No. 46292, Report No. 7/1, Narrative Report for GOV14/8 Jul (1945) in RAAF Squadron Narrative Reports – 11, 12 and 15 Squadrons; NAA: A9652, BOX 13 [p853/927].

[186] RAAF Form A123 Serial No. 46292 Report No. 7/2, Narrative Report for GOV15/8 Jul (1945) in RAAF Squadron Narrative Reports – 11, 12 and 15 Squadrons; NAA: A9652, BOX 13 [p864/927].
[187] RAAF Form A123 Serial No. 46294 Report No. 7/3, Narrative Report for GOV16/10 Jul (1945) in RAAF Squadron Narrative Reports – 11, 12 and 15 Squadrons; NAA: A9652, BOX 13 [p900/927].
[188] RAAF Form A123 Serial No. 46294 Report No. 7/4, Narrative Report for GOV17/10 Jul (1945) in RAAF Squadron Narrative Reports – 11, 12 and 15 Squadrons; NAA: A9652, BOX 13 [p918/927].
[189] RAAF Form A123 Serial No. 46294 Report No. 7/5, Narrative Report for GOV18/10 Jul (1945) in RAAF Squadron Narrative Reports – 11, 12 and 15 Squadrons; NAA: A9652, BOX 13 [p790/927].
[190] RAAF Form A123 Serial No. (not quoted) Report No. 8/1, Narrative Report for GOV19/2 Aug (1945) in RAAF Squadron Narrative Reports – 11, 12 and 15 Squadrons; NAA: A9652, BOX 13 [p789/927].
[191] RAAF Form E/E.88 Record Card – Airframes, Aero Engines, Mechanical Transport & Marine Craft for A59-53, Aircraft Status Cards – Ventura A59-1 to A59-20, A59-50 to A59-104; NAA: A10297, BLOCK 376.
[192] RAAF Form E/E.88 Record Card – Airframes, Aero Engines, Mechanical Transport & Marine Craft for A59-84, Aircraft Status Cards – Ventura A59-1 to A59-20, A59-50 to A59-104; NAA: A10297, BLOCK 376.

Former RAAF Aerodromes along or near the Stuart Highway, Part 6, Daly Waters Region

[193] North Western Area Aerodromes and Landing Strips (Existing and Projected) Named After RAAF and USAAC Pilots Killed or Missing During This War. NAA: A9695, 18.
[194] RAAF Form A51, Unit History Sheet, Details of Operations by No. 13 Squadron, entry for LAHA, 1.1.42 in RAAF Unit History Sheets Number 13 Squadron Jun 40 – Dec 45. NAA: A9186, 35.
[195] RAAF and Civil Official Lists of Aerodromes, Emergency Landing Grounds and Flying Boat Bases Australia and Territories. NAA: A9716, 1555.
[196] RAAF Form A.50 Operations Record Book of No. 2 G.R. Squadron, entry for DALY WATERS Feb.20 – 28 (1942) in RAAF unit History Sheets Number 2 Squadron May 37 – May 46; NAA: A9186, 5.
[197] RAAF Form A.51 Unit History Sheet, Detail of Operations by No. 13 Squadron, entry for 21.2.42 in RAAF Unit History Sheets Number 13 Squadron Jun 40 – Dec 45; NAA: A9186, 35.
[198] RAAF Form A.51 Unit History Sheet, Detail of Operations by No. 13 Squadron, entry for DARWIN 5.3.42 in RAAF Unit History Sheets Number 13 Squadron Jun 40 – Dec 45; NAA: A9186, 35.
[199] AFCO 59/1942, Formation of R.A.A.F. Station Daly Waters, N.T., 22.4.42, in Air Force Confidential Orders and Index – 1942; NAA: A7674, 2.
[200] AFCO 61/1942, Formation of No.1 Repair and Salvage Unit, 22.4.42, in Air Force Confidential Orders and Index – 1942; NAA: A7674, 2.
[201] AFCO 60/1942, Formation of No.1 Medical Receiving Station, 22.4.42, in Air Force Confidential Orders and Index – 1942; NAA: A7674, 2.
[202] RAAF Form A.50 Operations Record Book of No. 2 Squadron, entry for DARWIN 1/5/42 in RAAF unit History Sheets Number 2 Squadron May 37 – May 46; NAA: A9186, 5.
[203] RAAF Form A.51 Unit History Sheet, Detail of Operations by No. 13 Squadron, entry for 2.5.42 in RAAF Unit History Sheets Number 13 Squadron Jun 40 – Dec 45; NAA: A9186, 35.
[204] AFCO 108/1942, Re-naming R.A.A.F. Unit at Daly Waters, N.T., 6.6.42, in Air Force Confidential Orders and Index – 1942; NAA: A7674, 2.
[205] AFCO 228/1942, Formation of No.9 Stores Depot, 22.8.42, in Air Force Confidential Orders and Index – 1942; NAA: A7674, 2.
[206] RAAF Form A.50 Operations Record Book of No. 1 R.S.U. entry for DALY WATERS 1942 Aug in RAAF Unit History Sheets No. 1 RSU (etc); NAA: A9186, 372.
[207] AFCO 274/1942, Move of No.1 Medical Receiving Station, 19.9.42, in Air Force Confidential Orders and Index – 1942; NAA: A7674, 2.
[208] AFCO 315/1942, Numbering of Operational Bases, 30.10.42, in Air Force Confidential Orders and Index – 1942; NAA: A7674, 2.
[209] AFCO 381/1942, No.9 Stores Depot – Change of Postal Address, 3.12.42, in Air Force Confidential Orders and Index – 1942; NAA: A7674, 2.
[210] AFCO 382/1942, No.2 Base Personnel Staff Office – Change of Postal Address, 3.12.42, in Air Force Confidential Orders and Index – 1942; NAA: A7674, 2.
[211] AFCO B272/43, No.56 Operational Base Unit – Reduction to Cadre, 28.7.43, in Air Force Confidential Orders – Series A and B – and Index, 1943; NAA: A7674, 3.
[212] RAAF and Civil Official Lists of Aerodromes, Emergency Landing Grounds and Flying Boat Bases Australia and Territories. NAA: A9716, 1555.
[213] North Western Area Aerodromes and Landing Strips (Existing and Projected) Named After RAAF and USAAC Pilots Killed or Missing During This War. NAA: A9695, 18.
[214] Information supplied by Gordon Birkett in email of 0837 hours, 15AUG21.
[215] RAAF and Civil Official Lists of Aerodromes, Emergency Landing Grounds and Flying Boat Bases Australia and Territories. NAA: A9716, 1555.
[216] North Western Area Aerodromes and Landing Strips (Existing and Projected) Named After RAAF and USAAC Pilots Killed or Missing During This War. NAA: A9695, 18.
[217] RAAF Form A50, Operations Record Book of No. 2 G.R. Squadron, notation on sheet number 80 in RAAF Unit History Sheets Number 2 Squadron May 37 – May 46. NAA: A9186, 5.
[218] RAAF Form A50, Operations Record Book of No. 2 G.R. Squadron, entry for NAMLEA 12th onwards in RAAF Unit History Sheets Number 2 Squadron May 37 – May 46. NAA: A9186, 5.

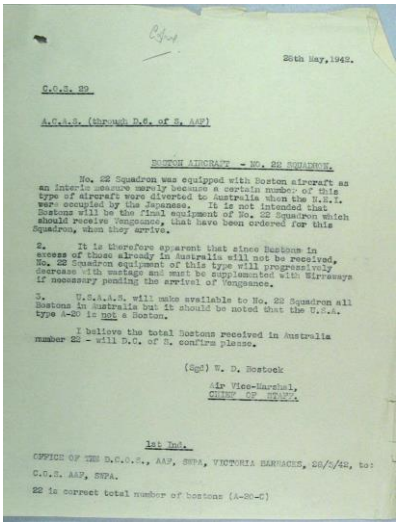
Spitfire FR Mk.XIVe in RAAF Service

[219] Entry for No. 451 Squadron, RAAF, Representative Serial, Halley James J, *The Squadrons of the Royal Air Force & Commonwealth 1918-1988* (1988) 474.

[220] Cluley Richard J, *Unit Badges of the Royal Australian Air Force* (nd c1990).
[221] Search of rafcommands.com/database/serials at 17AUG21.

Douglas DB-7A/B Bostons and A-20s: The first 5 months of 1942 in detail with the RAAF and NEIAF

[222] A28-8 ex Boston AL907 was the 240th and last DB-7 aircraft of the original French order for the Douglas DB-73The first batch of 240 (AL263/AL502) were built by Douglas-Santa Monica, but the second batch of 240 (AL668/AL907) were built by Boeing-Seattle.

223 

28th May, 1942.

D.C.S. 89

A.C.A.S. (through D.C. of S. AAF)

BOSTON AIRCRAFT - NO. 22 SQUADRON.

No. 22 Squadron was equipped with Boston aircraft as an interim measure merely because a certain number of this type of aircraft were diverted to Australia when the N.E.I. was occupied by the Japanese. It is not intended that Bostons will be the final equipment of No. 22 Squadron which should receive Vengeance, that have been ordered for this Squadron, when they arrive.

2. It is therefore apparent that since Bostons in excess of those already in Australia will not be received, No. 22 Squadron equipment of this type will progressively decrease with wastage and must be supplemented with Kittyhawks if necessary pending the arrival of Vengeance.

3. U.S.A.A.F. will make available to No. 22 Squadron all Bostons in Australia but it should be noted that the U.S.A. type A-20 is not a Boston.

I believe the total Bostons received in Australia number 22 - will D.C. of S. confirm please.

(Sgd) W. D. Bostock

Air Vice-Marshal,
CHIEF OF STAFF

1st Ind.

OFFICE OF THE D.C.O.S., AAF, SWPA, VICTORIA BARRACKS, 28/5/42, to:
C.G.S. AAF, SWPA.

22 is correct total number of bostons (A-20-C)

[224] Refer NAA Title Formation, organisation and movement Number 18 (NEI) HB Squadron Contents range1942 - 1946 Series numberA705 Control symbol 151/2/324 Access status Open Barcode166558 Page 153

[225] Formation, organisation and movement Number 18 NEI HB Squadron Page 150 Reference NAA A705, Control symbol 151/2/324

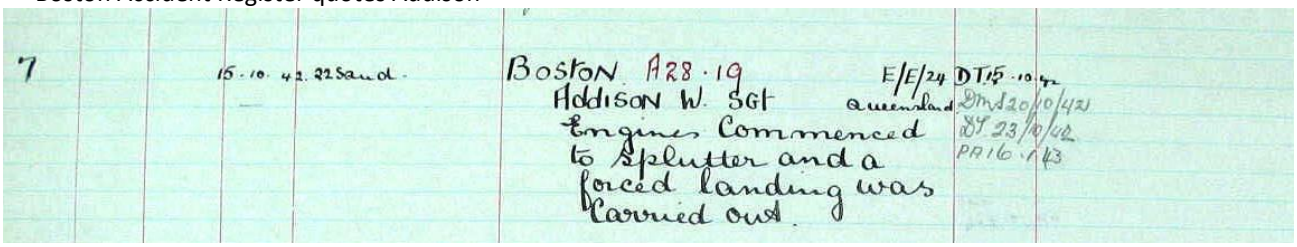
[226] Per **The story of the Douglas DB-7B Bostons of the Dutch Naval Air Service (and the Army Aviation Corps of the Royal Netherlands East Indies Army)** By Dr. P.C. Boer (© P.C. Boer, August 2010, revised and updated September 2011, February 2012) per entry [56] Letter Chief of Staff Brett to GHQ SWPA 15 May 1942 (ANA, location Canberra, File 11093), p.104 (confirms that the plan to temporarily equip 18 Sq with A-20s was unacceptable for the NEI
authorities); Memo RAAF Command filing date 22 June 1942 (ANA, location Canberra, File 151/2/324), p. 5 (confirms the delivery of 15 aircraft to 18 Sq before the deliveries were terminated).

[227] Note: Peter Boer does confirms eight DB-7Bs had in fact arrived at Canberra; **A28-5/7/9/11/15/16/18/22** from the 6th June 1942, with all on strength deleted on the 23rd June 1942 and picked up the next day by RAAF pilots and crews. Exampled by **A28-7** which was at 1AD during that time being modified with Torpedo, W/T and Auxiliary Oil and fuel tanks I am sceptical of these airframes being on strength with No 18 NEI Squadron. However Entry 4/06/42 Sheet #75 five pilots departed to ferry aircraft from Laverton to Canberra No 18 (NEI) Squadron. It does not state the type. However, and since by that time some 12 USAAF A-20A had arrived by ship and assembled by USAAF 4AD at Geelong from March to May 1942. IE: MV Horace Luchenbach (1 x A-20A **40-112**) MV Andre Luchenbach (17 x A-20As), SS West Portal (7 x A-20As) and a earlier delivery by the MV Torrens 05/03/42 Brisbane (3 x A-20As **40-079/110/162**). It was stated that some 48 x A-20s were being sent to SWPAC (SUMAC/LEFT) by December 1942. Totalling 27 A-20As by the end of May 1942

Serial	May-42	Jun-42	Jul-42	Remarked
A28-1	22Sqn	22Sqn	22Sqn	Rec 1AD ex 22Sqn 02/08/42
A28-2	22Sqn	2AD	2AD	Acc 19/05/42 22Sqn to 2AD 27/05/42 SOC 31/08/42
A28-3	22Sqn	1AD	22Sqn	Rec 1AD 16/06/42 ex 22 and rec 22 ex IAD 14/07/42.
A28-4	22Sqn	22Sqn	22Sqn	In service
A28-5	22Sqn	22Sqn	22Sqn	In service
A28-6	**22Sqn**	**22Sqn**	**22Sqn**	**11/05/42 C 22Sqn Rec 22 Sqn 08/06/42. ex Canberra & 1AD**
A28-7	1AD	1AD	22Sqn	Rec 1AD ex 22Sqn 17/05/42.Fitment of Torpedo equipment, extra fuel and oil tanks , W/T Issued 22Sqn ex 1AD 09/07/42
A28-8	22Sqn	22Sqn	22Sqn	E Star at 22Sqn 18/5/42 C at 22Sqn 15/06/42 Rec 1AD 17/07/42
A28-9	22Sqn	22Sqn	1AD	E Star at 22Sqn 4/5/42 C at 22Sqn 15/06/42 Rec 1AD 20/07/42
A28-10	2AD	2AD	2AD	Unserviceable 2AD 11/05/42 to 04/09/42
A28-11	22Sqn	22Sqn	1AD	To 1AD 17/07/42 Rec 22Sqn 31/07/42
A28-12	22Sqn	22Sqn	1AD	To 1AD 20/07/42 Rec 22Sqn 09/08/42
A28-13	2AD	2AD	2AD	Rec 22Sqn 14/01/43 after 2AD then 3AD
A28-14	22Sqn	22Sqn	22Sqn	In service
A28-15	22Sqn	22Sqn	22Sqn	In service
A28-16	22Sqn	22Sqn	22Sqn	In service
A28-17	22Sqn	SOC	SOC	SOC
A28-18	22Sqn	22Sqn	1AD	To 1AD 13/07/42 Rec 22Sqn 30/07/42
A28-19	22Sqn	22Sqn	1AD	To 1AD 13/07/42 Issued 22Sqn ex 1AD 24/07/42
A28-20	2AD	2AD	2AD	Issued 22Sqn ex 2AD 23/08/42

A28-21	22Sqn	1AD	22Sqn	To 1AD 16/06/42 rec 22Sqn Ex 1AD 14/07/42
A28-22	22Sqn	22Sqn	22Sqn	In service

[228] Boston Accident Register quotes Addison



Curtiss Corner

[229] Please note, from May 1942, all Pursuit Units were renamed Fighter Units and all Material Units renamed Service Units.

[230] Later when with the 9thFS when 41-36240 #73 was flown by Lt Bill Levitan, he managed shooting down one G3M Bomber on 07/12/42.Back to the 8th FS as #42, then flown by Lt Moose 03/03/43 and by F/O Pierce 11/04/43 as #50.