ADF Serials Telegraph News

News for those interested in Australian Military Aircraft History and Serials

Volume 5: Issue 3: Spring 2015 *Editor and contributing Author: Gordon R Birkett, Major Article Contributor; Jeff Bennett*

Message Starts:
In this issue:

- **News Briefs** *by Gordon Birkett @2015*
- **Story: THE LAST THREE - Part 1** *Written by John Bennett @2015*
- **Story: RAAF Gift Aircraft: The Beginning of the story.** *Written by Gordon Birkett @2015*
- **Odd Shots: A spate of Wacketts** GRB Collection
- **Message Traffic Selections:** Please address any questions to: question@adf-serials.com.au in the meantime

Message Board – Current hot topics:
These boards can be accessed at: www.adf-messageboard.com.au/invboard/

News Briefs

- ***29th July 2015:*** The seventh C-17A Globemaster III aircraft, **A41-213**, arrived in Australia.

- **July 2015**: German Army to part out 18 early production EC665 Tigers. The German government and Eurocopter have come to an agreement on the number of Tiger and NH90 helicopters to be purchased for the German armed forces. Months of negotiations between the two parties came to an end with the signing of an agreement to purchase a reduced number of helicopters. As part of the deal, Germany will now buy 82 NH90s rather than 122 originally planned, while the number of EC665 Tiger UHT attack helicopters will fall to 57 from 80. The Tiger HAP / UHT is powered by two MTU / Turbomeca / Rolls-Royce MTR390 turboshaft engines rated at 960kW (1,285shp). Self-sealing crashworthy fuel tanks have explosion suppression and non-

return valves. Tiger HAD has two MTR390-E enhanced engines rated at 1,094kW (1,467shp) and will equip any further newer versions of France and Spain. The Australian and German Army version will remain powered by the earlier version at this stage.

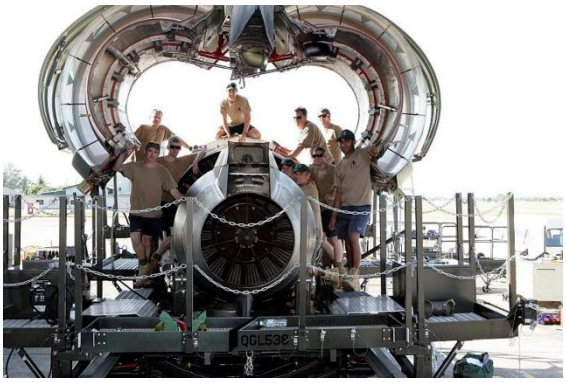
- **4th August 2015:** The Commonwealth Government has delivered a long-term plan for a strong and sustainable naval shipbuilding industry. Over the next 20 years the Government will invest over $89 billion in ships and submarines for the Navy.
    - Bringing forward the Future Frigate programme (SEA 5000) to replace the ANZAC class frigates. As part of this decision, they will confirm a continuous onshore build programme to commence in 2020. The Future Frigates will be built in South Australia, based on a Competitive Evaluation Process, which will begin in October 2015.
    - Bringing forward construction of Offshore Patrol Vessels (SEA 1180) to replace the Armidale class patrol boats by two years, with a continuous onshore build commencing in 2018 following a Competitive Evaluation Process.

- **1st July 2015;** No 35 Squadron C-27J Spartan **A34-001** lifts off from the RAAF Base Richmond runway

- **26th August 2015:** The Government of the United Kingdom has requested the remanufacture of fifty (50) United Kingdom (UK) WAH-64 Mk 1 Attack Helicopters to AH-64E Apache Guardian Helicopters with one hundred and ten (110) **T-700-GE-701D Engines** (100 installed and 10 spares), the refurbishment of fifty-three (53) AN/ASQ-170 Modernized Target Acquisition and Designation Sights (M-TADS) (50 installed and 3 spares), the refurbishment of fifty-three (53) AN/AAR-11 Modernized Pilot Night Vision Sensors (PNVS) (50 installed and 3 spares), the refurbishment of fifty-two (52) AN/APG-78 Fire Control Radars (FCR) (50 installed and 2 spares) with fifty-five (55) Radar Electronics Units (Longbow Component) (50 installed and 5 spares), fifty-two (52) AN/APR-48B Modernized Radar Frequency Interferometers (50 installed and 2 spares), sixty (60) AAR-57(V) 3/5 Common Missile Warning Systems (CMWS) with 5th Sensor and Improved Countermeasure Dispenser (50 installed and 10 spares), one hundred and twenty (120) Embedded Global Positioning Systems (GPS) with Inertial Navigation (100 installed and 20 spares), and three hundred (300) Apache Aviator Integrated Helmets. The original Agusta Westland Apache is a licence-built version of the AH-64D Apache Longbow attack helicopter for the British Army's Army Air Corps. The first eight helicopters were

built by Boeing; the remaining 59 were assembled by Westland Helicopters. The 67th and final Apache was handed over to the British Army in July 2004. The remaining WAH-64s held will be parted out. ***This article is included as it has a relevance on AAV MRH-90 Taipans. These <u>original WAH-64 Mk1s are powered by Rolls-Royce Turbomeca RTM322's</u>*** *which are derivatives as used on our MRH-90 Taipans. A major problem some years ago with our MRH-90's was compressor blade rubbing caused by the bending of a spool in the Rolls-Royce Turbomeca RTM322 engine due to uneven cooling after shutdown.*

- **<u>Retro Noteworthy News:</u> 12th July 2013?;** C-17A Globemaster **A41-209** was stranded in Butterworth, Malaysia after number 4 engine was deemed unserviceable and required replacement. *This was the first ever engine change performed on a Royal Australian Air Force C-17A Globemaster since accepting its first C-17A in December 2006!!!* ***Seven(7) Years!!!! RAAF News. <u>Can someone confirm date as I think its June 2009 or is it 2013?</u>***



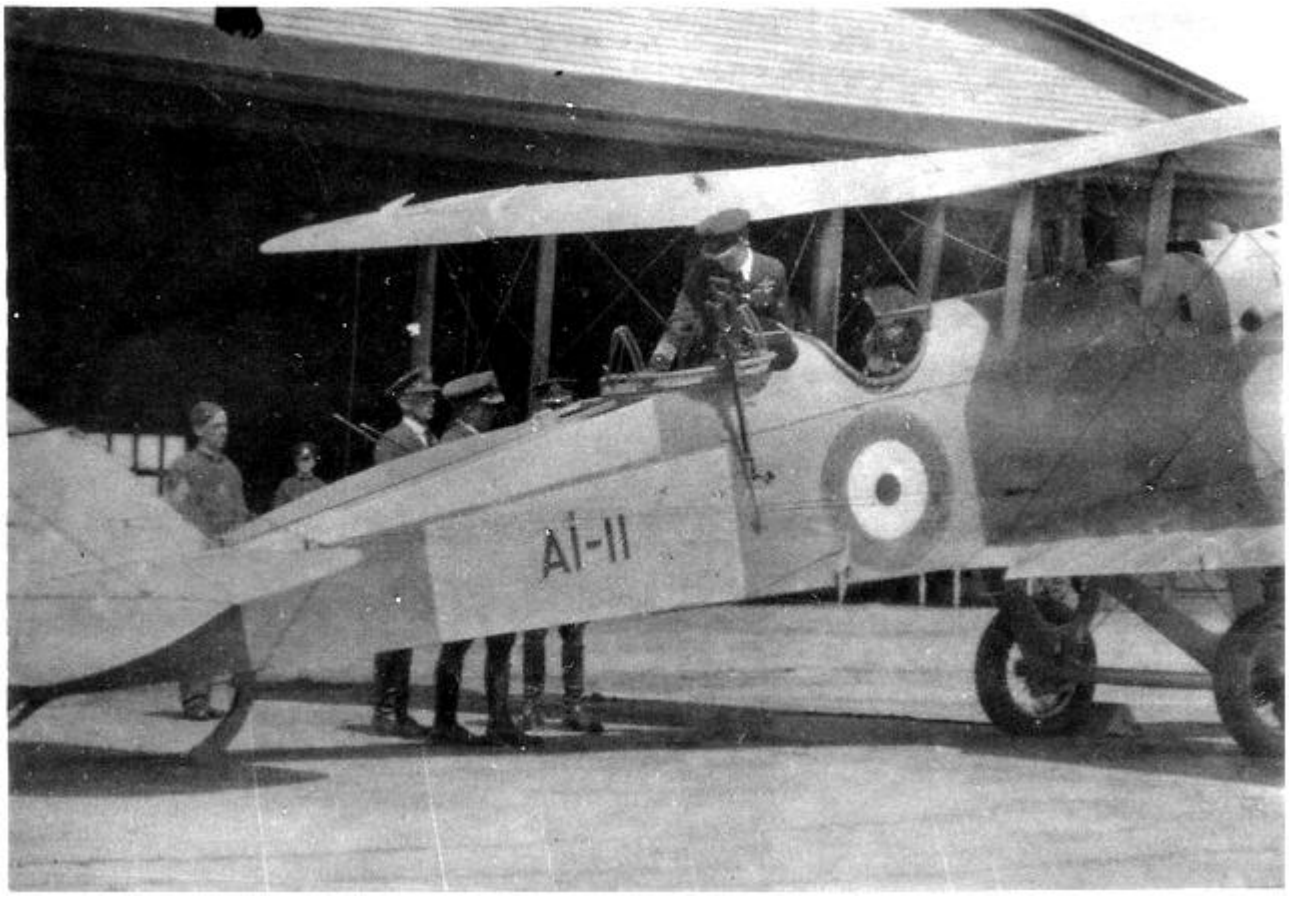
- **3rd September 2015:** Boeing has won a contract worth $1.49 billion to build 13 more P-8A maritime surveillance aircraft, and buy titanium and other materials needed for work on 20 further planes in coming years, the Pentagon announced on Thursday. The contract covers production of nine P-8A aircraft to be built for the U.S. Navy, and four aircraft for the Royal Australian Air Force, the Defence Department said in its daily digest of major weapons contracts. It also includes funding for titanium and other parts needed for the manufacture of 16 additional P-8A aircraft for the U.S. Navy and the four remaining ordered Australian Aircraft.
- **24th August 2015**: First RAAF F-35A, **A35-001**, pictured in formation with fellow Luke Air Force Jets. LM

THE LAST THREE - Part 1 Written by John Bennett @2015

how the RAAF and Army serial numbers have been derived

As we know, RAAF (and later Army) aircraft have been serialled in the Australian military "A" series since 1921. This system - which was very simple (but unduly became confused) and useful for identifying an aircraft type – has lasted almost a century and has gone through iterations of what we call the *three series* of "A numbers".

The First "A Series"



DH-9 ex E907, **A1-11**. *Ken Rowland ADF-Serials Collection*

In my book "The Imperial Gift", I have related how "A" was allocated to the group letter for aircraft in the stores identifier system. Group "B" was allocated to engines, "C" to motor transport, "D" to hand tools, "E" to armament, and so on. Those who served in the RAAF will remember going to L Group for their clothing – "L" was the stores group letter identifier for clothing. So the "A" identifier did not stand for Australia, as often suggested, but was purely an equipment identifier - unlike "NZ" which was applied across the ditch, or years later the RAN modifying the RAAF system by allocating "N" for Navy to their aircraft.

The "A" serialling had been recommended by SQNLDR Bain for the new RAAF in Air Board Agenda No.123 of 12th August 1921, and adopted by RAAF Technical Order No.32 in October that year. Copies of both documents are in "The Imperial Gift", pages 197 and 198. Within the "A" group was the section number allocated to an individual aircraft type – originally in 1921 "A1" for the D.H.9A, "A2" for the S.E.5a, "A3" for the Avro 504, etc.

Details of these aircraft are covered by the ***ADF- serials*** website under the "first series". An individual aircraft was then individually identified as A1-1, and by the aircraft serial it was obvious that the aircraft type was a D.H.9A. The US serialling system say of 41-12345, or the UK system of L6789, was not that obvious.

This two-part series will look into how the individual aircraft serial numbers have been derived over the past 94 years – not simply consecutively (as related in the above paragraph), but in any number of different combinations of "last three" numbers for a variety of reasons. I will explain why the "last three" were adopted, and why any single aircraft group identifier could contain different useful combinations of "last threes" as circumstances changed.

But before we start examining "last threes" in great detail, let's first look at the "A" aircraft series – what we refer to as the "first, second and third series" of the "A" numbers.

Did the First "A Series" End at A100?

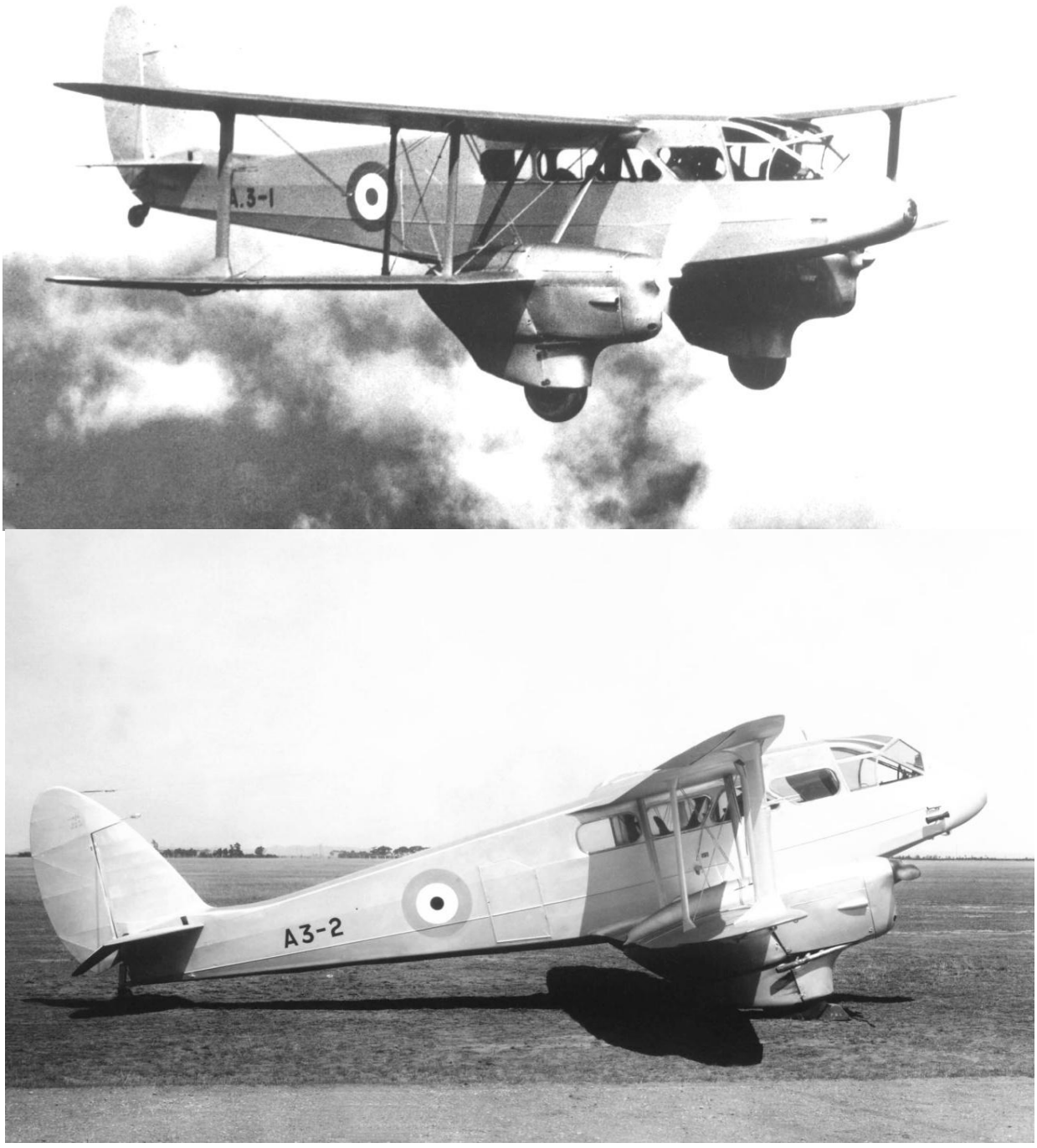
Warhawk, *aka Gordon Birkett,* recently discovered that the aircraft group designator A43 had originally been allotted to the Boomerang fighter in 1942. This was a fact unknown as we always have associated the Boomerang as A46, and Warhawk has uncovered this original record in his research, relating this in the ***ADF-Serials message board***. Also, he found that A10 had been considered for the Kittyhawk in early 1942 - before A29 was finally allocated. Now I can postulate how this could have occurred.

I subscribe to the Clive Lynch theory (Clive being a stalwart of the RAAF history movement since the 1960s and co-author of the book "Australian Air Force since 1911") which was published years ago in the Aviation Historical Society of Australia (AHSA) Journal. Unfortunately I no longer have a copy of his article, but he stated there were not three series of RAAF "A" numbers, as basically the "2nd Series" was never formally started. *Ergo*, the "1st series" did not end until A100. How could this be?

What occurred was the original concept of the "A" series as a stores identifying system for aircraft was intended as a "rolling", **but critically *reusable***, system of allocation of serial numbers.
- That meant after A1 group aircraft had all been withdrawn from service (WFS) and struck off charge (SOC), the A1 group would be used again. As A1 D.H.9As were all WFS in 1930, A1 was available for reallocation, and indeed was for the Hawker Demon in 1934.

Hawker Demon **A1-60** in flight. Note new patches that ruin the finish of the top wing roundels. *Batman Collection*

- A2 the same rules, with S.E.5a all WFS by 1930, this group was available for Seagull V in 1934.
- This was interesting with both A3 and A4. A3, being Avro 504 first time around, was second time picked up in 1935 by the D.H.89 Rapides acquired for survey work. Both Rapides had been WFS in 1938, so the A3 group was again vacant and was reallocated in 1939 to the CA-2/CA-6 Wackett trainers.



D.H.89 Rapides **A3-1** and **A3-2** pictured in 1938. *Batman Collection*

- A4 had been the Sopwith Pup first time, then after all were WFS in 1925, A4 was vacant and allocated to the first Tugan Gannet (A4-1) in 1935. Then an RAAF Equipment Officer register keeper realised "wait a minute, I have already allocated A4 to the Avro Anson and forgot to log it in the file", so Gannet was given a new allocation of A14 -1 as all the subsequent numbers were still in use, and A13 superstition ensured it was not to be used.

Pictured is Tugan Gannet A4-1 as marked. *Batman Collection*

Tugan Gannet A4-1's second RAAF Life. It was struck off charge as A14-1 and traded in to CAC in Dec 1937.Returned to RAAF Service as **A14-7** in 1940 with the Survey Flight.. A14-7, now a marked Ambulance Aircraft with 2AAU as seen here in November 1942. *GRB Buz Collection*

- As both A5 (Vimy originally, but reallocated to the Wapiti) and A7 (D.H.60 Moth) remained in service, these groups were not freed up during the war.
- There was a delay with A8, allocated to D.H.50A first time and one might be acquired again, it was held. (In the event, when another D.H.50A was acquired it was not until late 1942 and it was then allocated A10). So A8 had remained vacant...until someone realised that A8 was still empty, and so the Oz-production DAP Beaufighters were allocated A8, long after the UK-supplied Beaus had been allocated A19.
- A9 had been Seagull III, and when free was reallocated pre-war to the Beaufort which was to be produced in Australia by DAP, with the first production for the RAF in the Far East.
- A10, as related, for some reason had been kept vacant (the first series Fairey IIIDs had long gone) and so in early

1942 A10 may have been a logical choice for our quickly-acquired P-40Es, as recently discovered by Warhawk. But for some reason, A29 was then allocated to the P-40E, which left A10 still vacant. At the end of 1942 a D.H.50A was impressed, and although the D.H.50A type had been A8-1 in first usage (but of course a different airframe), it slotted into the vacant A10 allocation.

- Similarly, A11 had been vacant since the withdrawal of the Southamptons in 1939, and was eventually reallocated to the Auster III in 1944.
- A12, the Bulldog from the first series, was retained in service as instructional airframes during WWII, and therefore the A12 group was not reallocated. Hence A12 appears as the Bulldog in the so-called "first" and "second" series.

So there were hic-ups with aircraft types in service with this **reusable** numbering system, and although some gaps were subsequently refilled, the system pressed on and after 1944 did not reallocate vacant group slots.

By 1961, A100 had been reached, and this is what we know as the "second series". But reflect on what happened: the series was started with aircraft group A1 in 1921; when that became vacant it was reused; it was a continuation of the original serialling system concept, not a conscious decision in 1934 with the Demon to say "let's not keep using the numbers above A12 and end the first series, and instead start a second series". It was the original concept of reusing the aircraft group designator when there was a vacancy, but it soon became apparent that this system of reallocation became confused. It was simply easier to press on with new allocations.

After the so-called "second series" ran its course to A100, a new series was started - not using the original concept of reallocating the numbers as a type was SOC, but continuing the simpler method of a new number for a new aircraft - this has become the "third series".

Now arguments could be mounted that the first series ran from A1 to A100, with multiple reusage as vacancies occurred, and therefore a "second series" did not start in 1934, but it started in 1960 when A100 was reached, followed by the use of A1 again. However, for the simplicity of displaying data on the aircraft across the "A" serialling system since 1921, the three series of numbers has been generally accepted – and indeed forms the basis of our ***ADF-Serials*** website.

Types of "Last Three" Numbering

After the aircraft group designator (i.e. the "A" group letter and the "section number") for an aircraft type, an identification number was allocated to an individual aircraft. All the aircraft type in the "first series" conformed to sequential numbering – i.e. A1-1, A1-2, A1-3 up to A1-30. But War brought many more aircraft types and large numbers of those types, and different numbering systems were devised within the group designator. These individual aircraft serial numbers are often referred to as the "last three", the last three digits of the aircraft serial (or "tail") number. These different methods of numbering used in the "second series" I have named below, and we will look at each individually:

- sequential numbering;
- block numbering;
- the 1000 numbers for prototypes;
- out-of-sequence aircraft group "A" numbers;
- scrambled (or random) numbering;
- the "century series"; and
- constructor's numbers (c/ns) as serials.

In the "third series", at least three of these combinations are currently in use in addition to a fourth, variations on the aircraft's previous identity - i.e. its previous USAF, USN or US Army serial number. But we will get to the third series in Part 2.

into the nitty-gritty

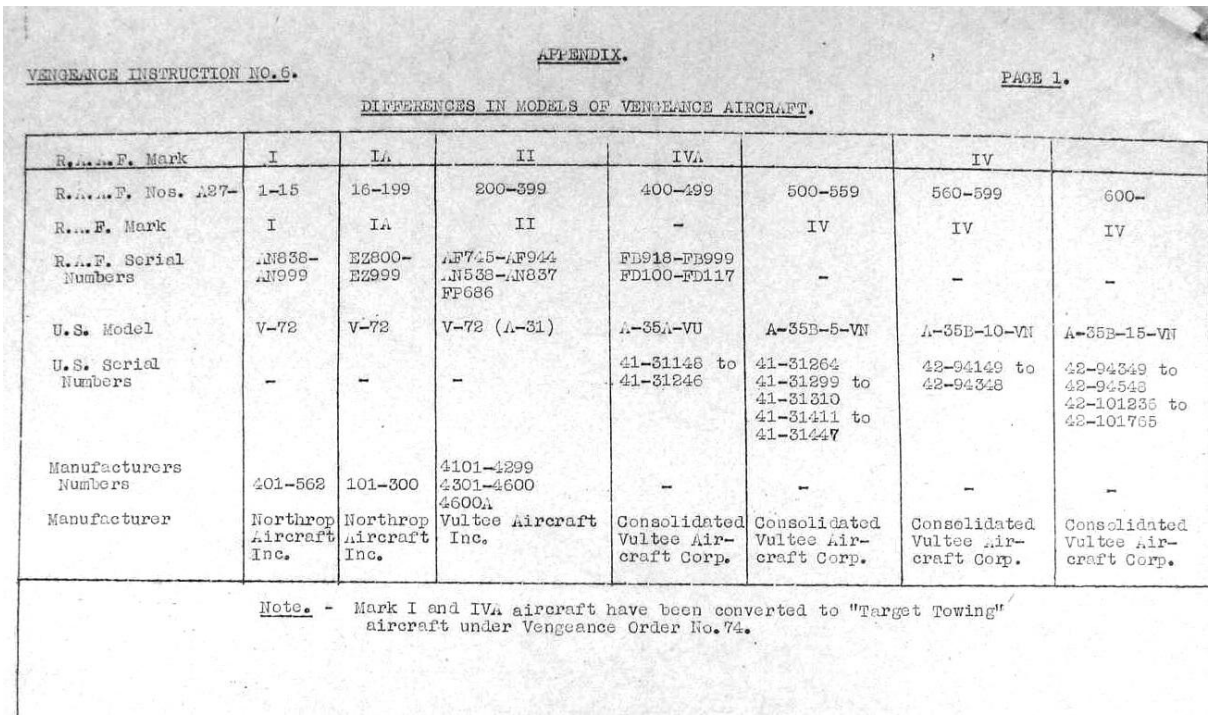
Sequential Numbering

Numbering the first aircraft of an aircraft type from the aircraft group identifier was simplicity itself, as related A1-1, A1-2, A1-3, etc. This **sequential numbering** was generally used up until 1942 when large numbers of different marks of an aircraft type were acquired.
Examples of these are covered in the Block Numbering system (e.g. A24, A27, A29, etc) which is covered below. But generally the process of numbering sequentially from "-1" held true. When civilian aircraft were impressed into service in WWII, all these aircraft were numbered from "-1" in the individual "A" aircraft group. These impressments ran from A30 (DC-2 and DC-3) up to A45 (Ford Trimotor).

So even with the Block Numbering system, it was still structured on sequential numbering right through till after WWII. An interesting later variation was for the sole Jet Provost trainer acquired in 1959 for evaluation, its number was A99-001, and this method of three-digit sequential numbering features prominently, but not exclusively, in the "third series".

Block Numbering
As different models of an aircraft type entered service in increased numbers, it was found useful for stores accounting to further break up the aircraft group designator into **block numbering** to show the aircraft model. Examples that were prominent in the "second series" are shown below.

- **A11** - Auster models. A11-1/A11-56 Mk III; A11-60/A11-61 Mk V; A11-200/A11-201 AOP.6; A11-301/A11-302 Autocar (for Navy). As can be seen, the Block Number created gaps between the serial blocks that were used.
- **A24** - Catalina models. A24-1/A24-114 model PBY-5 and PBY-5A; A24-200/A24-206 PB2B-1; A24-300/A24-309 PB-2B2; A24-350/A24-386 PB2B2R.
- **A27** - Vengeance models. A27-1/A27-99 A-31 Vengeance I/IA; A27-200/A27-321 A-31 Vengeance II; A27-400/A27-422 A-35A Vengeance IVA; A27-500/A27-549 A-35B-5-VN Vengeance IV; A27-560/A27-566 A-35B-10-VN Vengeance IV; A27-600/A27-640 A-35B-15-VN Vengeance IV.



APPENDIX.

VENGEANCE INSTRUCTION NO.6. PAGE 1.

DIFFERENCES IN MODELS OF VENGEANCE AIRCRAFT.

R.A.A.F. Mark	I	IA	II	IVA		IV	
R.A.A.F. Nos. A27-	1-15	16-199	200-399	400-499	500-559	560-599	600-
R.A.F. Mark	I	IA	II	-	IV	IV	IV
R.A.F. Serial Numbers	AN838-AN999	EZ800-EZ999	AF745-AF944 AN538-AN837 FP686	FB918-FB999 FD100-FD117	-	-	-
U.S. Model	V-72	V-72	V-72 (A-31)	A-35A-VU	A-35B-5-VN	A-35B-10-VN	A-35B-15-VN
U.S. Serial Numbers	-	-	-	41-31148 to 41-31246	41-31264 41-31299 to 41-31310 41-31411 to 41-31447	42-94149 to 42-94348	42-94349 to 42-94548 42-101236 to 42-101765
Manufacturers Numbers	401-562	101-300	4101-4299 4301-4600 4600A	-	-	-	-
Manufacturer	Northrop Aircraft Inc.	Northrop Aircraft Inc.	Vultee Aircraft Inc.	Consolidated Vultee Aircraft Corp.	Consolidated Vultee Aircraft Corp.	Consolidated Vultee Aircraft Corp.	Consolidated Vultee Aircraft Corp.

Note. - Mark I and IVA aircraft have been converted to "Target Towing" aircraft under Vengeance Order No.74.

Official RAAF Documentation of Block Numbering with A27 Vengeance. *GRB NAA Collection.*

- **A28** - Boston. A28-1/A28-40 DB-7A, A-20A and A-20C; A28-50/A28-78 A-20G.

- **A29** - Kittyhawk. A29-1/A29-205 P-40E, P-40K; A29-300/A29-389 P-40M; A29-400/A29-587 P-40N; A29-600/ A29-704 P-40N-20-CU; A29-800/A29-828 P-40N-25-CU; A29-900/A29-928 P-40N-30-CU; A29-1000/A29-1079 P-40N-35-CU; A29-1100/A29-1221 P-40N-40-CU. There were also "dual serials" issued to the late model P-40N, where two different serials were confusingly allocated to an aircraft, which Warhawk has solved and addressed in a previous article.

- **A52** - Mosquito. A52-1/A52-212 FB.40; A52-300/A52-327 PR.41; A52-500/A52-537 FB.VI; A52-600/A52-622 PR.XVI; A52-1002/A52-1015 T.III; A52-1050/A52-1071 T.43. Also the "prototype" A52-1001 serial was carried by an early F.II "pattern" aircraft delivered for Australian production, see below, "1000 Prototype" numbering.

- **A58** - Spitfire. A58-1/A58-185 Mk V; A58-200/A58-259 Mk V; A58-300/A58-550 Mk VII; A58-600/A57-758 HF.VIII.

- **A59** - Ventura. A59-1/A59-20 B-34; A57-50/A59-104 PV-1.

- **A68** - Mustang. A68-1/A68-200 Australian assembled CA-17 and constructed CA-18; A68-500/A68-583 P-51K; A68-600/A68-813 P-51D. Also the "prototype" A68-1001 serial was carried by an imported P-51D "pattern" aircraft to assist Australian production, see below, "1000 Prototype" numbering.

CAC-18 Mustang A68-121 picture in service with 77 F Sqn at Iwakuni Japan 1951. *Batman Collection*

- **A72** - Liberator. A72-1/A72-12 B-24D; A72-31/A72-198 B-24J/L/M; A72-300/A72-405 B-24J-5-NT. These were the last significant deliveries of WWII.

B-24D Liberator **A72-94** NV-C *GRB Collection*

- **A92** - Jindivik. A92-1/A92-12 Mk 1; A92-21/A92-124 Mk 2/102; A92-201/A92-276 Mk 2B/102B; A92-301/A92-310 Mk 3; A92-400/A92-532 Mk 3A/103A/203A; A92-601/A92-674 Mk 3B/103B/203B; A92-701/A92-752 Mk 103B/203B; A92-800/A92-816 Mk 4A/104A; A92-901/A92-918 Mk 4A.

Late model RAF Jindivik takes off at Lanbedr Wales . *GRB Collection*

So ends the block numbering, and we now move onto the other “last three” systems.

1000 Numbers for Prototypes

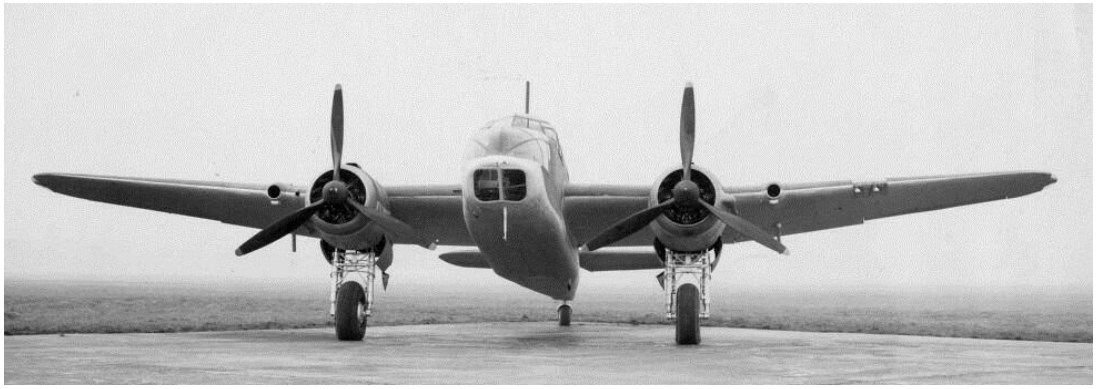
This **"1000 prototype series"** is more of a "last four", and was first implemented in 1940 for the CA-2 Wackett trainer prototypes, and followed on for other prototype and pattern aircraft

- **A3** - Wackett. The two CA-2 Wackett prototypes were serialled A3-1 and A3-2 in 1939. When the aircraft was put into production as the CA-6, it was desirable to have the production aircraft serialled sequentially A3-1/A3-200. Therefore the prototypes were reserialled as A3-1001 and A3-1002. This would have been sensible too for the Wirraway (A20), where the two US-supplied NA pattern aircraft should have become A20-1001 and A20-1002.

Wackett Prototypes;**A3-1** and **A3-2**. Note prototype engine type, inline 6 cylinders verses production radials. *Batman Collection*

Wackett A3-7 in final 1942 production guise. *GRB Collection*

- **A9** - Beaufort. One UK-produced Beaufort was imported as a pattern for Australian DAP production. This aircraft was numbered A9-1001.



Beaufort L4448, ala A9-1001, pictured on re-assembly in Australia. Note Taurus Engines. *GRB Collection*

DAP Beaufort Mk2 **T9540** was built as a British Contract A/c but received the serial **A9-1** in RAAF Service. *GRB Collection*

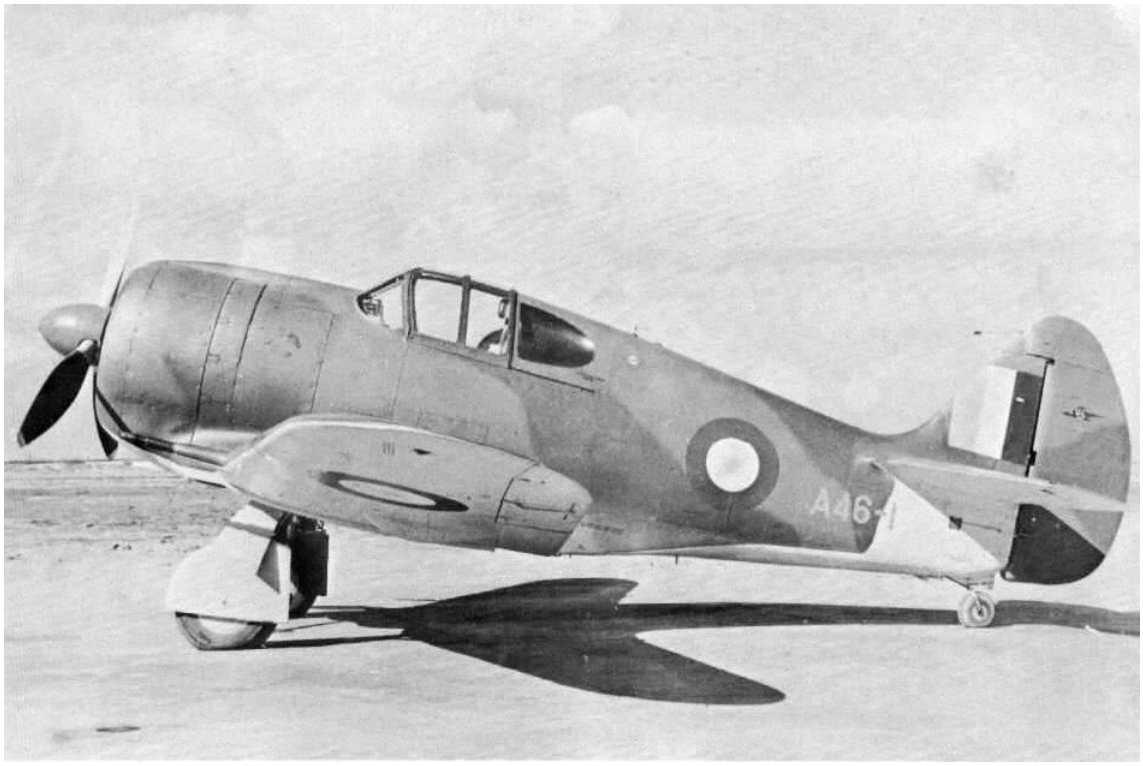
DAF Beaufreighter **A9-705** with 9 Comms Unit , was ex Beaufort **A9-672,** converted. *GRB Collection*

- **A23** - CA-4. The prototype Wackett bomber was numbered A23-1001 in 1941. The first C-11 Woomera production aircraft was A23-1, but further production was cancelled.

Woomera A23-1001 pictured at Laverton Vic 1941 *GRB Collection*

- **A46** - Boomerang. A46-1001 was the prototype CA-14. Production CA-12/CA-13/CA-19 Boomerangs were numbered sequentially A46-1/A46-249.

Pictured here is **CAC Boomerang A46-1001** prototype from the port side, post late 1943. *Batman Collection*



Boomerang **A46-1, was the first prototype of the type,** pictured during trials August 1942. *GRB Collection*

- **A52** - Mosquito F.II. A52-1001 delivered in 1942 as a pattern aircraft for Australian production, but appears to have been used primarily for training.
- **A57** - DHA Glider. There were two DHA-designed EG1 prototype gliders constructed, A57-1001 and A57-1002. Production G2 aircraft were numbered sequentially from A57-1.
- **A62** - CA-15. The sole CA-15 fighter prototype was A62-1001.
- **A68** - P-51D Mustang. One US-supplied P-51D was imported in 1945 as a pattern for CAC production. Other Mustang aircraft are covered by Block Numbering.

NA Mustang IV A68-1001 at CAC in 1945. *GRB Collection*

- **A94** - CA-26 Sabre. The CAC-produced CA-26 Sabre prototype was numbered A94-101 – perhaps it was considered A94-1001 would not fit on the rear fuselage! Production CA-27 Sabres are covered in the Century Series numbering.

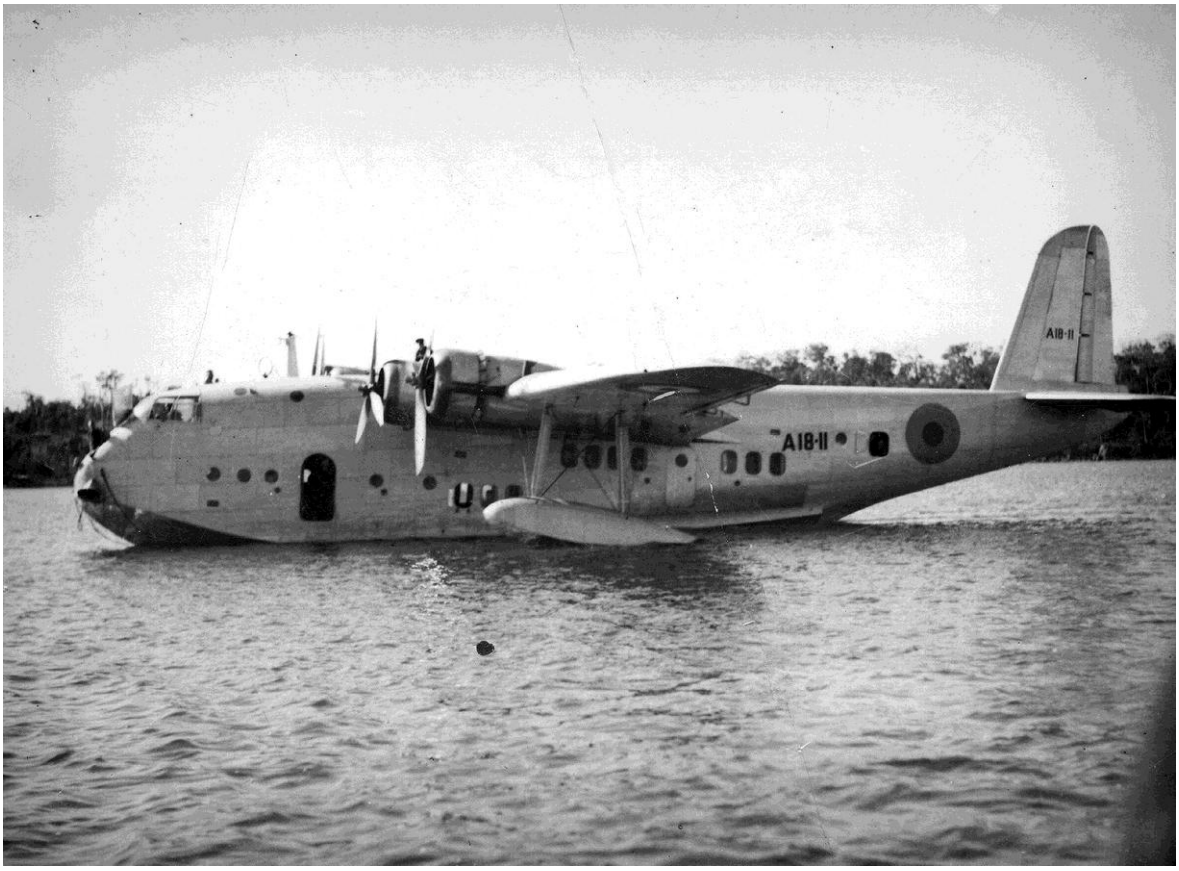
Out-of-sequence Aircraft Group "A" Numbers

Perhaps any rules are made to be broken and even a simple system will have **anomalies**. Such hic-ups in the allocation of early "A" numbers have been mentioned already:

- **A3** - after the Avro 504, was reused for the DH.89, then reused again for the CA-2/CA-6;
- **A4** - after the Pup, was mistakenly allocated (and painted on) the first Tugan Gannet, but then reused for the Anson.
- **A5** - originally allocated to the Vickers Vimy in 1921 but never used, so reallocated in 1928 to the Wapiti, and with a final batch delivered in 1938, it remained in service on second-line duties and as instructional airframes during WWII. So this was considered as part of both the "first series" and "second series" of "A" numbers – and the same applied to the A12 Bulldog.
- **A7** - D.H.60 Moth. The Cirrus Moth had originally been acquired for evaluation in 1926, and different variants were later acquired, as well as civilian impressments. In the main these were Gipsy Moths, and remained in service through WWII, thereby being considered "first" and "second series" aircraft.
- **A8** - Beaufighter Mk 21. The DAP-produced Beaufighter 21 was allocated A8 in 1944, long after the UK-delivered Beaufighters had been allocated A19 in 1942. The A8 group had remained unused, so it was determined to use again this vacant A8 allocation, even as the main series of allocations at that stage had reached A60.
- **A10** - D.H.50A. Allocated to the D.H.50A in late 1942 - and had been vacant and available in early 1942 when the first P-40Es were received (which subsequently became A29).
- **A11** - Auster. Covered above in the group numbering series, the Auster was delivered from 1944, as like A8, some vacant groups were discovered in 1944 and reallocated. At this stage, a similar-roled aircraft the Vultee Vigilant had just been allocated A64.

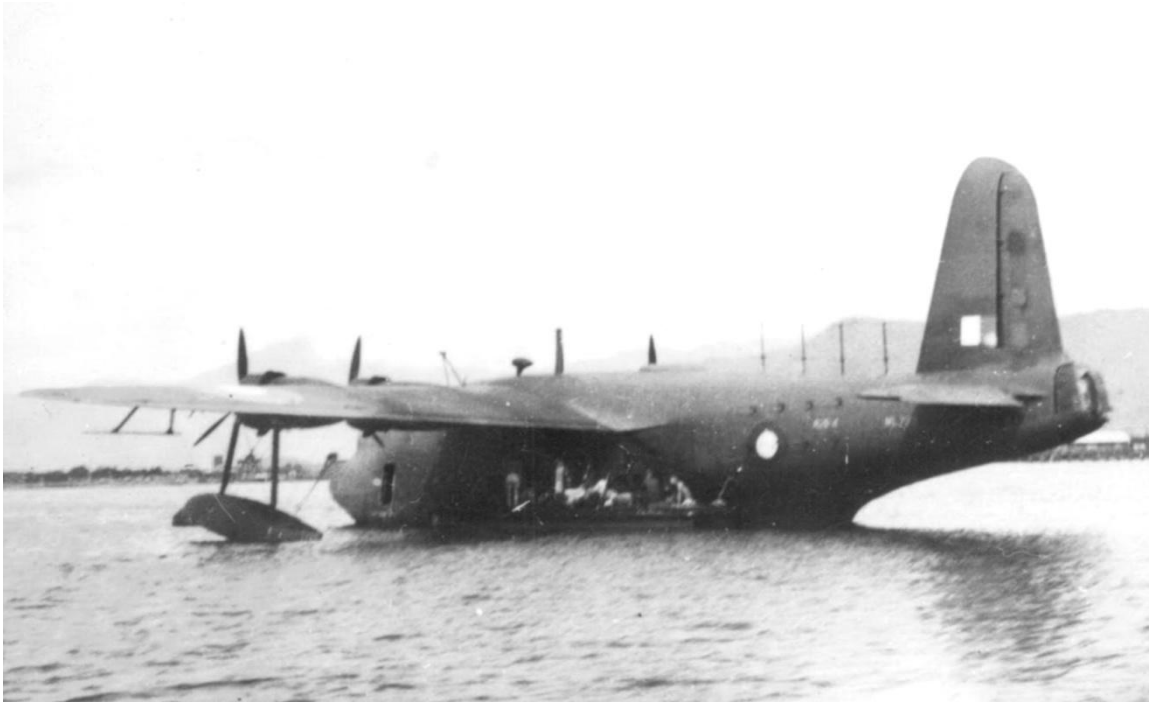
Auster A11-7 ex MZ162 at Morotai with 17AOP, *GRB Collection*

- **A18** - Sunderland. In 1939 RAAF acquired the nine Sunderlands in UK for 10 SQN, but these ended up staying in UK for the War with RAF serials, and A18-1 to A18-9 serials were allocated and not used. Shortly afterwards, Short S.23 Empire flying boats were impressed, and numbered from A18-10. When Sunderlands eventually did arrive, they became A26. Why?



A18-11 picture in 1940. *GRB Collection*

- **A26** - Sunderland. Originally having been allocated A18, when in 1944 the Sunderlands did arrive, this coincided with the 1944 purge to use vacant aircraft groups (as per A8 and A11 above). A26 had been kept unused - originally in early 1942 it had been allocated to 143 B-17E Fortress bombers, the order for which was eventually cancelled – so A26 was vacant for use.



A26-4, aka ML733, still wearing both RAF and RAAF Serials in Cairns. *GRB Collection*

Scrambled Numbering

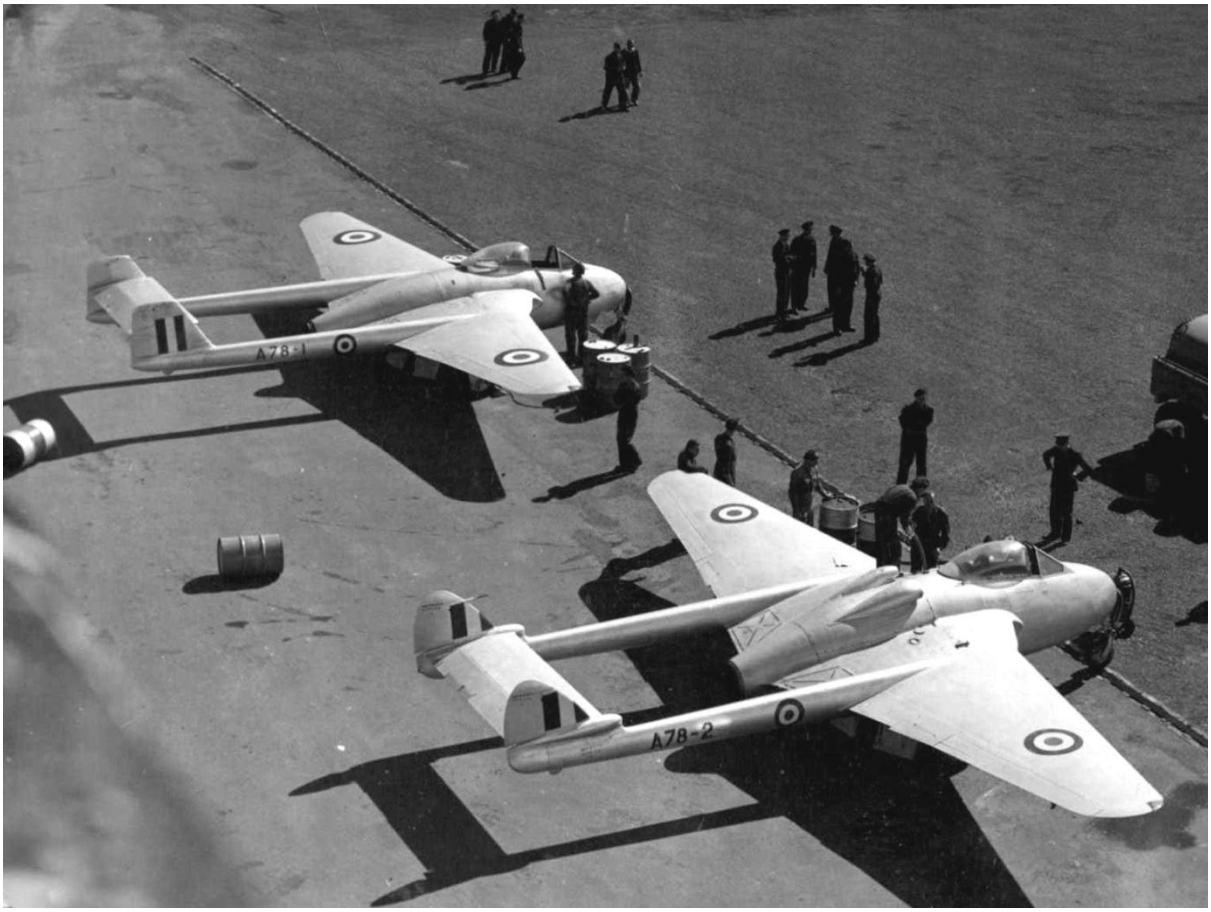
At the time of the Korean War, it was felt the "A" series numbering system was too simple, and an enemy could potentially resolve the numbers of aircraft in service by a study of the serialling system. Accordingly, a more secure **"scrambled"** system was developed, whereby aircraft serialled by an "A" aircraft group number would receive a "last three" individual number randomly, with no connecting sequence. The aircraft types affected by this system are given below, and the examples provide an illustration of the random method in allocating numbers.

- **A77** - Meteor fighter and trainer. Randomly numbered between A77-1 and A77-982. Aircraft were later reserialled in the "century series".

A77-879 freshly reserialled at Iwakuni Japan. *GRB Collection*

- **A79** - Vampire fighter. Randomly numbered between A79-1 and A77-996. Some aircraft were later reserialled to deconflict "last threes" from those Vampire trainers numbered in the "century series".

Vampire **A79-215** with 25 Sqn CAF *ADF-Serials Collection*



UK Built DH100 Vampire **A78-1** and **A78-2** at Amberley. Australian Production a/c were serialled A79. *GRB NAA Collection*

- **A80** - S-51. The three S-51 helicopters acquired were serialled A80-1, A80-374 and A80-636.
- **A84** - Canberra. A84-125 and A84-307 were two UK B.2 pattern aircraft to aid Australian production. Production Canberra were numbered in the "century series".
- **A85** - CA-22 Winjeel. A85-364 and A85-618 were the two CA-22 Winjeel prototypes. Perhaps A85-1001 and A85-1002 would have been more appropriate. The CAC production CA-25 Winjeels were numbered in the "century series".
- **A89** - P2V-5 Neptune. The 12 P2V-5 Neptunes were delivered with scrambled numbers between A89-225 and A89-983. These were soon numbered in the -300 "century series" (below).

The Century Series

This unique method of **"century"** numbering replaced scrambled serials and enabled an aircraft to be identified by its "last three", irrespective of its "A" aircraft group designator. It was introduced post-Korean War, but was largely abandoned in the 1960s when it was found there were not enough "century blocks" to uniquely identify all aircraft types. The examples of the system below will illustrate that point.

- **200** - Canberra bomber. A84-201/A84-248 Australian production of the Canberra B.20, some of which were subsequently modified as T.21 trainers.
- **300** - P2V-5 Neptune. A89-301/A89-312, originally delivered with scrambled numbers but subsequently reserialled. Numbers from **351** were subsequently used for the follow-on Sabre order A94-351/A94-371.
- **400** - CA-25 Winjeel. A85-401/A85-462.
- **500** - Canberra trainer. A84-501/A84-502 for UK-produced T.4 trainers. Australian-made T.21 trainers retained their -200 numbers.
- **600** - Vampire T.35 trainer. A79-600/A79-668 DHA-produced version of the later T.11 trainer variant.
- **700** - Meteor trainer. A77-701/A77-707 reserialled from scrambled numbers.
- **800** - Vampire T.33/T.35A trainer. A79-801/A79-836 DHA-produced version of the earlier T.11 trainer variant. T.33

A79-836 modified to the upgraded standard as T.35A A79-600. Navy also had A79-837 to A79-842. Numbers from **851** allocated to Meteor fighters which had scrambled numbers, A77-851/A77-886.

- **900** - Sabre. CA-27 Sabre Mk 30, 31 and 32 production A94-901/A94-990. When a further order of 21 Mk 32 aircraft was placed awaiting Mirage production, with no further room in the 900-series, these last aircraft were numbered from A94-351.

Coinciding with the operation of this century system of numbering, the DHC-2 Beaver was acquired, and allocated numbers A95-201 to A95-205. This probably highlighted a shortcoming of this system – that numbers of aircraft types would total more than the number of unique "century" blocks available, and so this system gave way to primarily using the aircraft c/n as a "tail" number.

The Aircraft C/n Series

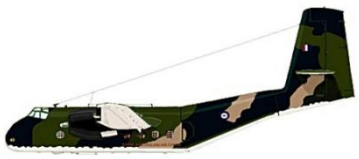
The aircraft **constructor's number (c/n)** – or more recently referred to as the manufacturer's serial number (msn) - is the unique number allocated by the aircraft manufacturer to the airframe on the production line. Sometimes this c/n can be many digits long, so the c/n method just uses the "last three" of this number. When we move onto the "third series", many of the aircraft group designators use the c/n system. The examples of the c/n system below illustrates its use.

- **A89** - P2V-7 Neptune. A89-270/A89-281 was the later model Neptune received by the RAAF, which was to be redesignated as the SP-2H. The "last three" of the serial was derived from the Lockheed c/n – 7270 to 7281.
- **A96** - CV-440 Metropolitan. Two VIP aircraft A96-313 and A96-353 used their c/n 313 and 353.
- **A97** - C-130A Hercules. A97-205/A97-216 were derived from the Lockheed c/n 3205/3216. Subsequently the C-130E and the C-130J used the same system. The C-130H was a commercial buy from Lockheed and for some reason were given a customer numbers of 001/012, and the A97 serial numbers used were based on these, not on the Lockheed c/n. Strange but true.
- **A98** - Cessna 180. Acquired for the Army from 1959, the first batch of 180A aircraft were serialled between A98-336/A98-351 derived from the Cessna c/n 50336/50351. Later batches used the same method.
- **A100** - DHC-3 Otter. Phew…Here at last!! The two Otters used the DHC c/n 390 and 392 to become A100-390/A100-392.

Some examples of the "A" aircraft group described in this part use three methods of serialling. For example, the Canberra (A84) used "last threes" which complied with sequential, scrambled and century blocks. Similarly, the Neptune (A89) complied with scrambled, century and c/n systems.

Next we will study the "third series"…*or is it the second series? I think it is easier if we just accept the conventional wisdom, but what we have seen so far is it is not as simple as it appears. We will look to at some unique Army numbering within the "A" series, and also the naval "N" series that has been adapted and now runs in parallel to give us a total picture of* ***ADF-Serials***.

John will continue his article in ***THE LAST THREE - Part 2 ,"the "A third series" and naval "N" numbers" in a forthcoming next ADF-Serials Telegraph***



RAAF Gift Aircraft: The Beginning of the story. Gordon R Birkett@2015

It started prior to the beginning of World War Two, during May 1938, when the National Defence Contribution s Trust Account was set up by the Commonwealth Government as a means to disperse specific war drive items, including organisations and personal donations, to help outfit the Australian Military Formations. These donations went towards, on request where possible, to the donation purpose as requested by the donors. These ranged from; Aircraft, Ambulances, Armoured Vehicles, Medical and Dental Equipment to even Refrigerators.

Much the same as the later Spitfire Fund of Britain, various organisations and persons collectively or singularly funded individual aircraft for the RAAF. Initially the idea of a Spitfire Fund was courted, however the Commonwealth Government was not too keen on transferring money abroad, but rather, spend the money in country.

Several Spitfire Funds were active at this time; the Western Australian Spitfire Fund (to be named "Spirit of Westralia"), The Victorian Cricketers' Spitfire Fund, The Poultry Industry Spitfire Appeal and the Illawarra Spitfire Fund of Newcastle(to be named "Spirit of Illawarra" .

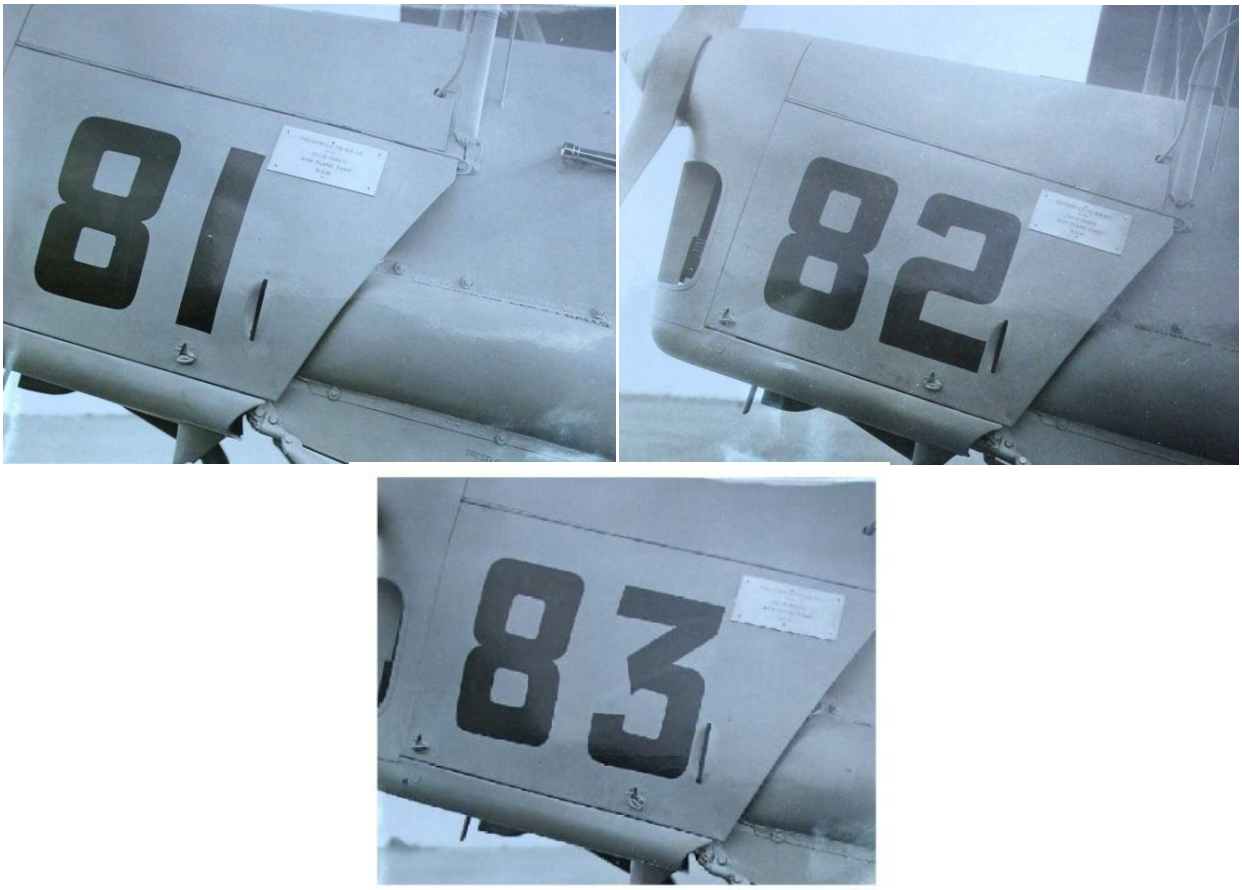
The Illawarra Spitfire Fund's Wirraway A20-480 " Spirit of Illawarra"

These organisations and persons were told by the Treasury to invest into Australian based aircraft.. *However there would be a resurgence, and success on later Spitfire MkVIII and Kittyhawk Funds; namely the Australian Victuallers Association Fund(AVA Named aircraft).*

As previous told in some past articles, example aircraft of these donations were covered, including a single Vultee Vengeance (**A27-11**) and a single Avro Anson(**A4-41**) by 94 years of age, Sir Thomas Buckland; and two CAC Wirraways (**A20-285** by the Licensed Victuallers' of Adelaide and **A20-480** "Spirit of Illawarra" by the Illawarra Spitfire Fund of Newcastle).

Tiger Gifts

What's not widely known is that some thirty-eight (38) DH82A Tiger Moths were donated by various groups and organisations.



The three **Glen Innes District War Plane Fund** aircraft as plated, **A17-281/282/283.**

One of the most prolific donator was the Queensland based Round Table Club Appeal. The Round Table movement, founded in 1909, was an association of organisations promoting closer union between Britain and its self-governing colonies. In Queensland, under the chairperson of Doctor W G Goddard and the listeners of Brisbane's 4BC Radio Station, some twenty (20) DH-82A Tiger Months were funded. A great amount of Queenslander Pride and Effort.

A Typical RAAF Round Table Plane Appeal Plaque per ***A17-519***

Ex A17-255 "Queensland Round Table Club No1", the first of twenty.

Ex A17-619 "Queensland Round Table Club No17" VH-LSK, is apparently missing its plaque!

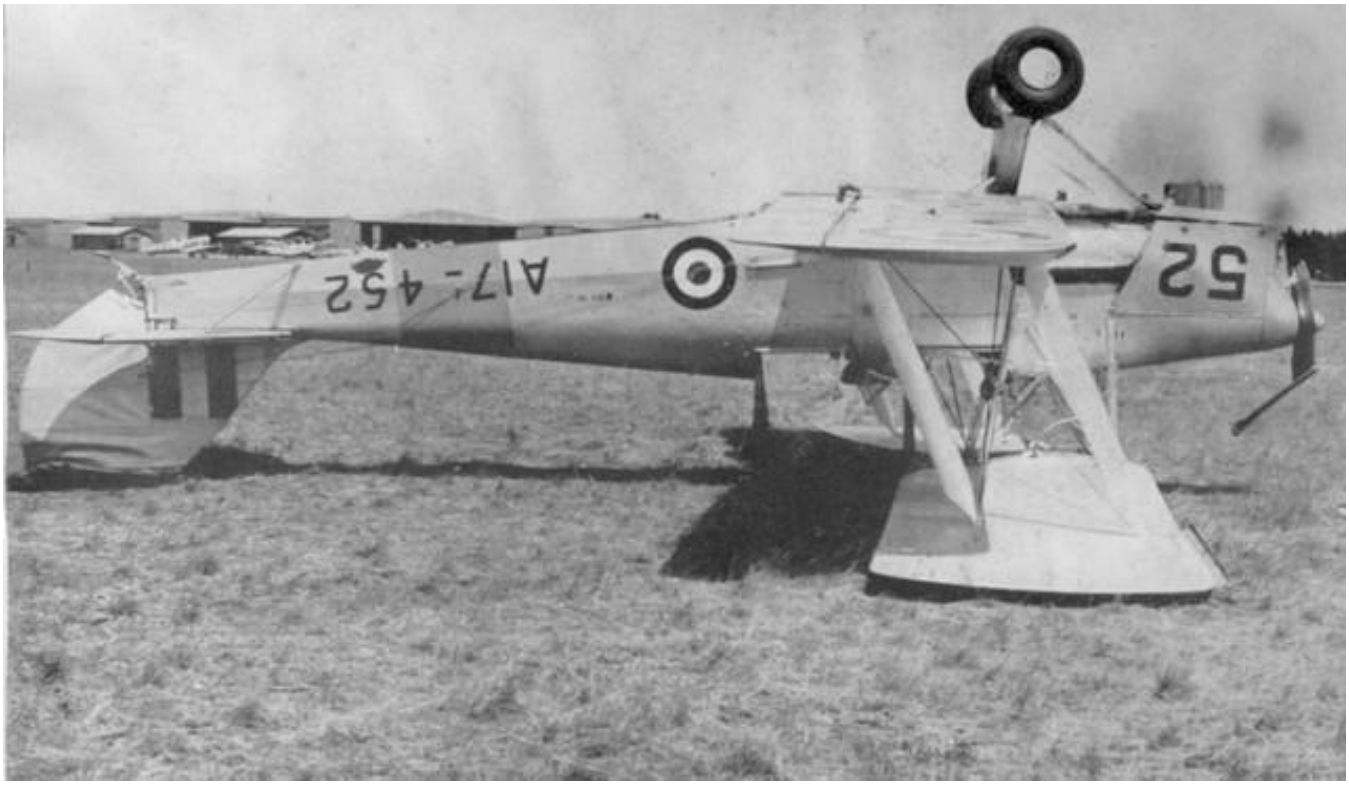
The following Table is the Tiger Moth Donation Aircraft list, up to mid 1943.GRB

Aircraft	Donator of Tiger Moths *with name*	Unit
A17-131	Victorian Paper Industry ***"Papyrus 1"***	7EFTS
A17-204	Victorian Paper Industry ***"Papyrus 2"***	9EFTS
A17-253	Lithgow Aeroplane Committee	11EFTS
A17-255	***Queensland Round Table Club No1***	10EFTS
A17-267	***Queensland Round Table Club No2***	5EFTS
A17-269	***Queensland Round Table Club No3***	7EFTS
A17-270	***Queensland Round Table Club No4***	W/O
A17-271	***Queensland Round Table Club No6***	5EFTS
A17-281	Glen Innes District War Plane Fund	De Hav
A17-282	Glen Innes District War Plane Fund	8EFTS
A17-283	Glen Innes District War Plane Fund	11EFTS
A17-285	Goomari War Plane Fund	5EFTS
A17-286	Goomari War Plane Fund	5EFTS
A17-337	***Queensland Round Table Club No5***	5EFTS
A17-341	Victorian Cricket Association ***"Victorian Cricketers 1"***	5 EFTS
A17-342	Victorian Cricket Association ***"Victorian Cricketers 2"***	5 EFTS
A17-343	Victorian Cricket Association ***"Victorian Cricketers 3"***	1 EFTS
A17-344	City of Essendon	11EFTS
A17-345	***Queensland Round Table Club No7***	1AOS
A17-346	***Queensland Round Table Club No8***	
A17-369	***Queensland Round Table Club No9***	7EFTS
A17-411	Country Women's Association of South Australia	1EFTS
A17-436	***City of Newcastle No1***	W/O
A17-440	***City of Newcastle No2***	5EFTS
A17-452	***Queensland Round Table Club No10***	10EFTS
A17-453	***Queensland Round Table Club No11***	10EFTS
A17-454	***Queensland Round Table Club No12***	10EFTS
A17-517	Science Graduate Fighter Plane Group	5EFTS
A17-518	***Queensland Round Table Club No13***	5EFTS
A17-519	***Queensland Round Table Club No14***	5EFTS
A17-588	Kuraring-gai Training Fund	
A17-606	***Queensland Round Table Club No18***	11EFTS
A17-607	***Queensland Round Table Club No19***	11EFTS
A17-608	***Queensland Round Table Club No20***	11EFTS
A17-614	***Queensland Round Table Club No15***	1AOS
A17-616	Shire of Oxley	1AOS
A17-617	***Queensland Round Table Club No16***	1AOS
A17-619	***Queensland Round Table Club No17***	1AOS

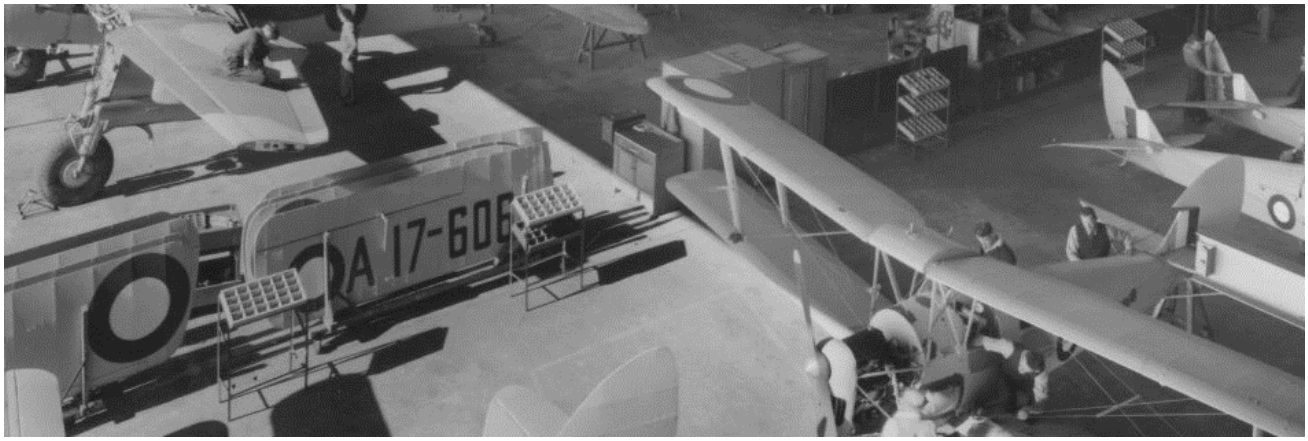
Goomari War Plane Fund's A17-285 Photo AWM

Victorian Paper Industry *"Papyrus 2" A17-204* Photo Bryce von Bonin

Ex A17-346 Queensland Round Table Club No8, VH-RGK.



A17-452 Queensland Round Table Club No10 in 1951 Point Cook, in a spot of trouble. Photo: Lindsay Horner

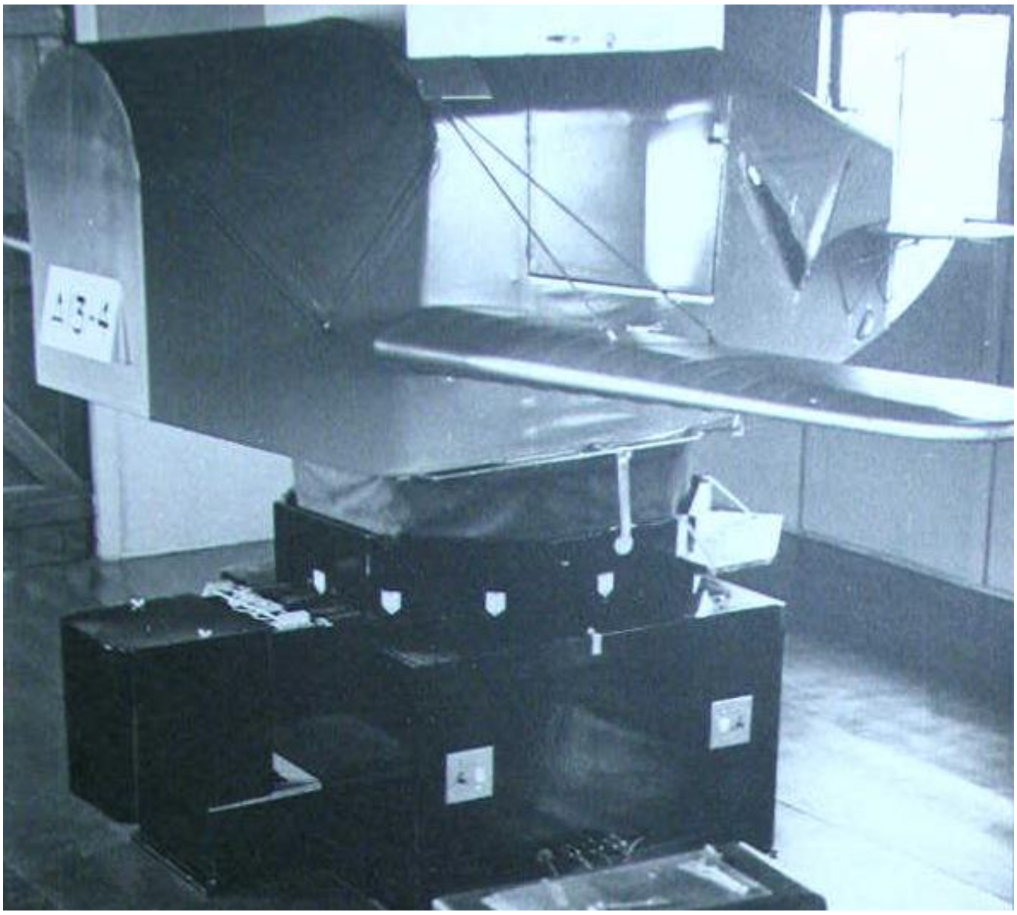


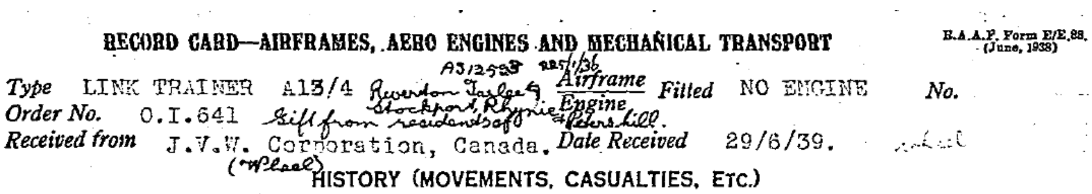
Queensland Round Table Club No18, A17-606, taking shape at Bankstown in late 1943

Ex A17-617 Queensland Round Table Club No16, VH-RVE. Photo: Eddie Coates

Other types donated : A Link

Though the idea was to provide an aircraft, some didn't get off the ground. At least one and possibly two Link Trainers were donated: IE: **A13-4** by the Residents of Riverton Taree, Stockport, Rhynie and Peter's Hill of South Australia.





RECORD CARD—AIRFRAMES, AERO ENGINES AND MECHANICAL TRANSPORT

R.A.A.F. Form E/E.88. (June, 1938)

Type LINK TRAINER A13/4 Riverton Tarlee Stockport, Rhynie & Peters Hill. *Airframe/Engine* *Fitted* NO ENGINE *No.*

Order No. O.I.641 Gift from residents of

Received from J.V.W. Corporation, Canada. *Date Received* 29/6/39.

HISTORY (MOVEMENTS, CASUALTIES, ETC.)

The First Australian Public Gift Aircraft from

A short story of Sir Thomas Buckland's life and his aircraft donations. (reprint of 2006 Story)

With this series we will be providing some background for some of the RAAF Presentation Aircraft received during World War II. Perhaps a single person stands out more than any other person or organisation would be Sir Thomas Buckland (1848-1947). His life deserves to be told in detail.

Being a goldmine-manager, pastoralist, businessman and philanthropist during his life, Sir Thomas was born on 1st August 1848 at Maidstone, Kent, England. Migrated to Sydney in 1865 and worked for his uncle Thomas Buckland, he then moved to Victoria and became a gold-assayer.

In 1867 went to Queensland and joined the Gympie gold rush, but in 1869, he returned to Sydney and entered the Bank of New South Wales to become bullion clerk and gold-assayer.

Three years later he resigned and moved to Charters Towers, Queensland, where he set up as a gold-buyer and assayer and head of the butchering business, T. Buckland & Co. With his involvement in mining, Sir Thomas contributed a small fortune in 'backing money' before he received a rewarding dividend.

He became later a manager of several companies (including the director of the Victory (Charters Towers) Gold Mining Co. Ltd, in 1892).

From 1877 Sir Thomas was a member of the Charters Towers Municipal Council (Later Mayor in 1882 and 1883). At Millchester, Queensland, on 8 August 1875 Buckland married (later divorced his first wife in 1889).

In 1879 he acquired Cardigan station in North Kennedy, in 1891 St Anns, and within a year, Bosworth on the Burdekin River...

In 1890 he went back to England, intending to settle, and on 15 October married Mary Kirkpatrick of Monks Horton Park near Hythe, Kent.

In 1891 he returned to Queensland to manage his interests during the depression, and soon became managing director in Australia for the English principals of Cobar Gold Mines Ltd, New South Wales.

Residing in Sydney from about 1898, he became a director of several prominent companies:

• Chairman of the pastoral company Pitt, Son & Badgery Ltd in 1906-43

• Director of the Permanent Trustee Co. of New South Wales from 1920.

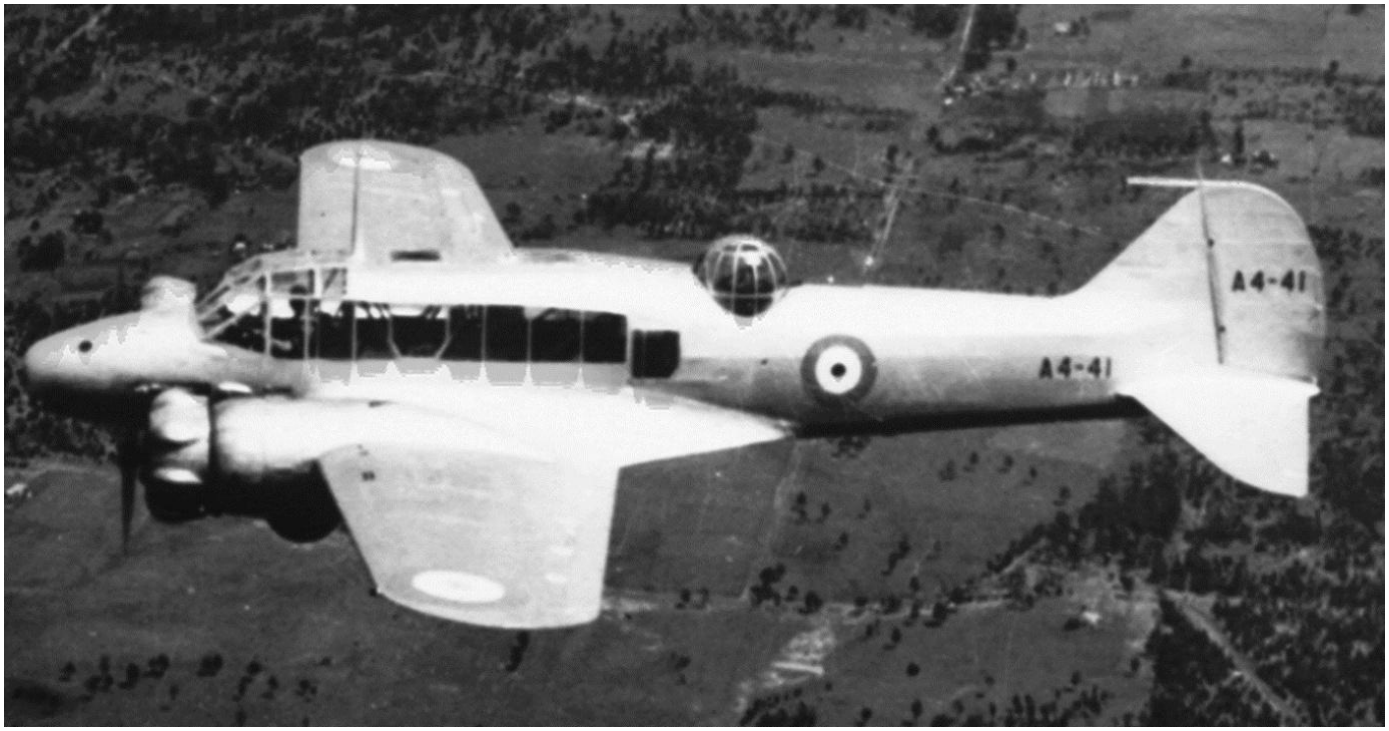
• President of the Bank of New South Wales in 1922-37

• Chairman of the United Insurance Co. Ltd from 1935

Thereafter Sir Thomas devoted his time and energy to his directorships and to philanthropy. He endowed the Buckland Memorial Church of England Boys' Home at Carlingford in 1927, and in 1934 gave £100,000 for the construction and endowment of the Buckland Convalescent Hospital at Springwood

The first Aircraft donation.

By 1938,he was now in his nineties and with his personal growing concerns about the country's lack of defence preparations, he donated £10,500 to the Commonwealth government to buy an Avro Anson bomber (A4-41). He requested, and was recorded taken, for a flight in it as condition of his gift.



*The very first public donated RAAF Aircraft, **A4-41**, was 'gifted' by Sir Thomas Strickland who gave £10,500 in 1938 to the Commonwealth Government for an "Anson bomber". He requested, and is recorded as having been given, a flight in the aircraft. GRB Collection.*

RECORD CARD—AIRFRAMES, AERO ENGINES AND MECHANICAL TRANSPORT

R.A.A.F. Form E/E.S.S. (June, 1938)

Type AVRO ANSON A.4-41. Airframe / Engine Fitted CHEETAH IX. No. A.S. 15069, 15070

Order No. O.I.613.

Received from A.V. ROE & CO. Date Received 17/8/38.

Sir Thomas Strickland Aircraft

HISTORY (MOVEMENTS, CASUALTIES, ETC.)

DATE	DETAILS	AUTHORITY	DATE	DETAILS	AUTHORITY
A4-41	Ex L7915. 1 AD 17.8.38. 2 AD 29.8.38. 4 Sqdn 29.8.38. Retitled 6 Sqdn (F) 31.1.39. 1 FTS for use in round Australia flight 11.11.38. 1 FTS 11.1.39. 1 SFTS 30.4.40. Overshot at night, hit stationary R3541, Point Cook 3.9.41. Overshot at night, hit fence, RLG Werribee 1.12.40. 4 SFTS 6.4.41. 87 OBU 2.8.45. SOC 28.2.47				

In 1940 he gave £20,000 to the British government for war expenditure.

Donating with a Vengeance

On the first of May 1941, he inquired about donating an additional £15,000 for an example of the latest American bomber plane for the Royal Australian Air Force. Just fourteen days later he received a reply from the then Minister for Air, the Hon J "Blackjack" McEwen. He would send another letter on the 11th July 1941 inquiring whether the type of aircraft concerned had arrived in Australia. He also agreed that a small plaque, reflecting the donation be fixed on the designated aircraft on presentation. The actual transfer of the donation for £15000 was made on the 15th November 1941.

The initial American Bomber type was to be the Brewster Bermuda, previously written about in an earlier ADF-Serial Newsletter Article. As stated in the article, this aircraft type was finally cancelled by the RAAF and replaced by the V72 Vultee Vengeance. This information was conveyed to Sir Thomas by letter dated the 9th February 1942.

Further to this, in a letter of the 10th April 1942, he was advised by the Minister for Air, the Hon Arthur Drakeford, that the first of the type delivered will be earmarked as the presentation aircraft.

In his reply of the 14th April 1942, Sir Thomas indicated if the aircraft was being delivered from Sydney, his wish to be able to have a flight in it, as previously done when presenting his Avro Anson donation, he would avail himself. In his reply to this request on the 20th April 1942, the Minister for Air would advise and make arrangements to see that be carried out.

On the 13th May 1942, the Minister for Air wrote to Sir Thomas to advise him of the delays of aircraft delivery. He was asked whether, on advice by RAAF Officers, if he would transfer his preference to a Kittyhawk aircraft instead, then in supply.

On the 19th May 1942 Sir Thomas understood the delays and accepted their suggestion, but that would mean his "ride" would not happen.

In a letter dated the 27th May 1942, Sir Thomas agreed to the Kittyhawk proposal. However, it seems that a Vultee Vengeance had indeed arrived by the middle of July 1942, and the Kittyhawk proposal was promptly forgotten. At this time he underwent his medical which he was considered fit.

In a communiqué from Group Captain Irwin of 3AD Amberley, the aircraft assembled, tested and with the plaque fitted, was to be flown down to Richmond by the 22nd August 1942 for the acceptance ceremony. Unfortunately Sir Thomas or A27-11 were not present due to the operational situation of the then time.

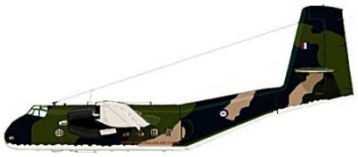
Vultee Vengeance A27-11 of Sir Thomas Buckland

He expressed his disappointment to the Minister for Air by letter.

About Sir Thomas requested flight?

At the age of 95 years, following another thorough RAAF Medical, did he get his wish of Vengeance flight; high above 2AD Richmond in A27-11 following its conversion to a target Tug, a year later in late August 1943? **Yes, indeed.**

Sir Thomas died on 11 June 1947 at his residence, Lyndhurst, Hunters Hill, aged 99 years.

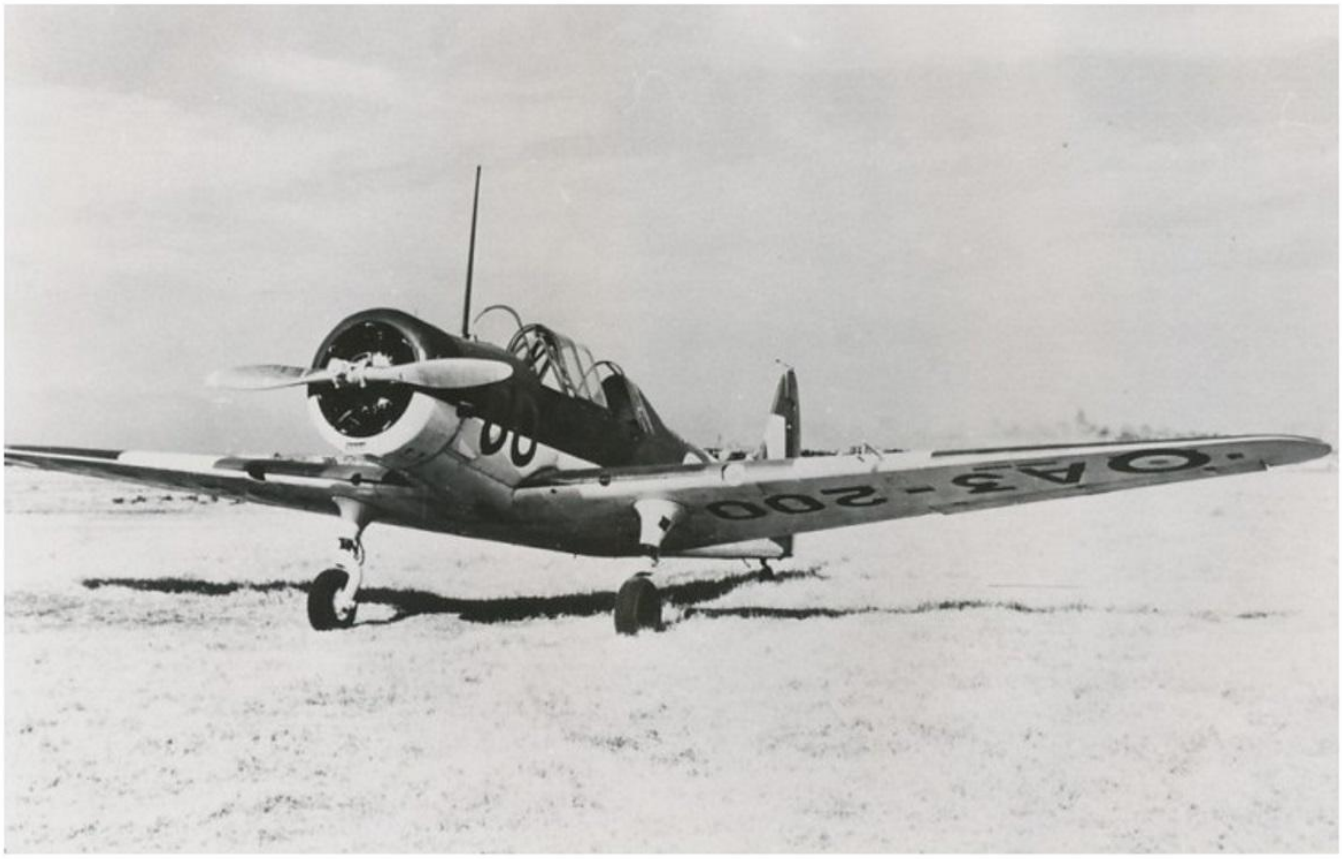


Odd Shots: *A spat of Wacketts*

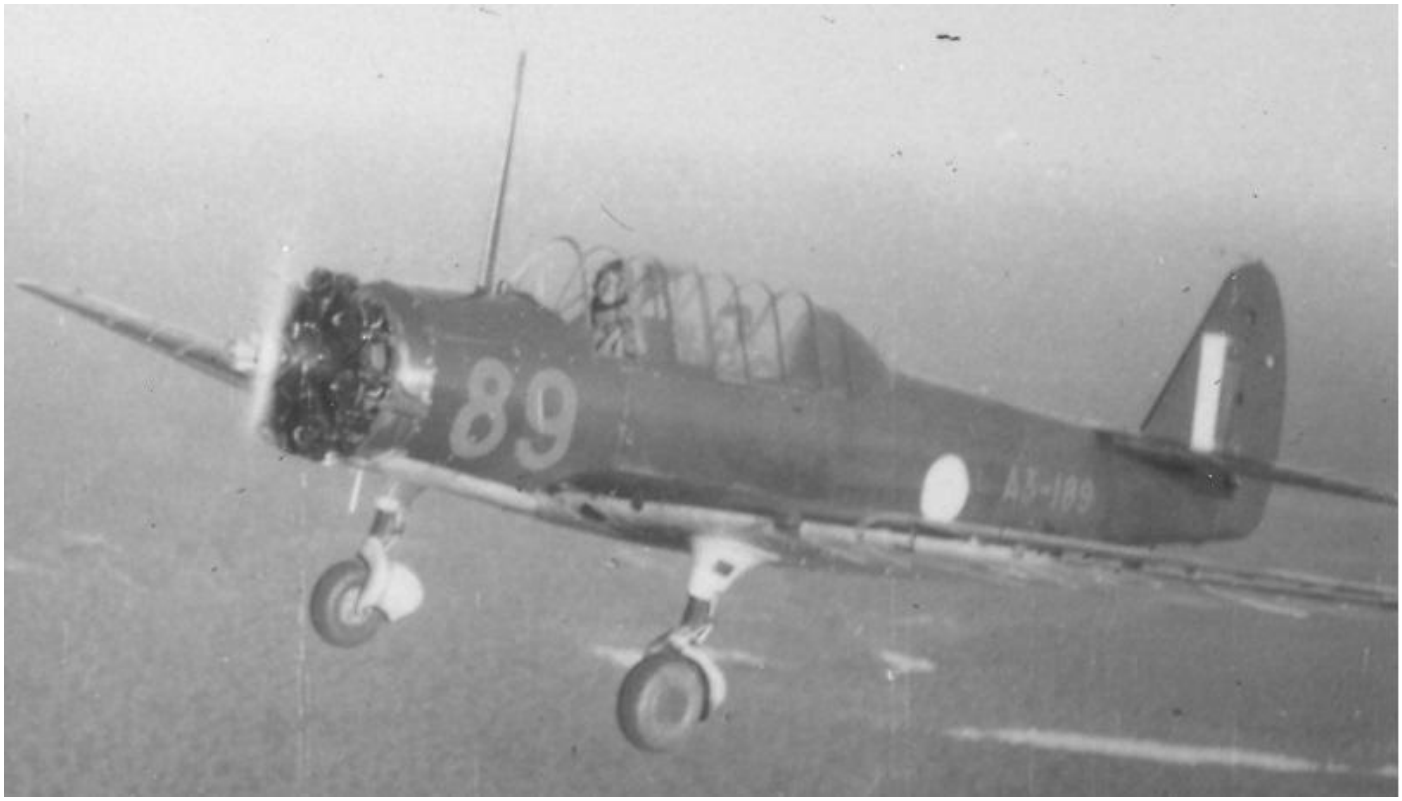
CAC Wackett A3-193, with A3-177, without cowl, but with previously unknown (on my part) semi-spats on landing gear. *GRB Collection*

CAC Wackett A3-173 without cowl. *GRB Collection*

CAC Wackett A3-197 without cowl. *GRB Collection*



CAC Wackett A3-200 as delivered with cowl, but no spats. *GRB Collection*



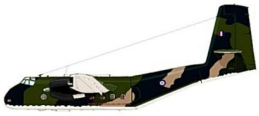
CAC Wackett A3-189 without cowl, but also with previously unknown (on my part) semi-spats on landing gear *GRB Collection*

***CAC** Wackett A3-138 without cowl, but also with previously unknown (on my part) semi-spats on landing gear* *GRB Collection*

CAC Wackett A3-158 with cowl, but no Spats. *GRB Collection*

A3-134, with A3-133 Cowls placed on it? Post war after disposal, note modern cars behind. Note detail of spats *ADF-Serials Collection*

Next Issue, the Summer 2015 edition, will be out circa late December 2015



A big **thank you** to John Bennett who has contributed a detailed parted article herein. Others contributors are most welcome to provide written articles or even topics to be covered.

A Future Articles may cover the Indonesian "Konfrontiski", and the RAAF planning and needs in the 1950/1960 Period.

Cheers

Gordy