ADF Serials Newsletter

For those interested in Australian Military Aircraft History and Serials

August-September 2007

In This Issue:

Editor's Note:

As I was looking at the ADF-Serials website recently, I was suddenly reminded of all the people that are actively involved in the website. The link- Our Team of Volunteers – provides details of all those past and present who have contributed to the website over the years. Incredibly for me, I realised that I have been involved with the group for almost 6 years! The collective research of so many people has enriched the knowledge and understanding of Australian military history. Although our focus is on Australian serials, we have been fortunate to include New Zealand and the Dutch East Indies military aircraft as well. Thanks to all for your efforts.

As editor I am always on the lookout for additional material to include in the newsletter. Would you like to submit some images or an article for the newsletter? Do you know of a good article, book or website that other researchers might find useful? We welcome contributions to the newsletter. You can contact us via the contact link at the end of the newsletter.

Till next time

Jan

Message Board – Current topics

The ADF Serials website hosts a number of message boards including:

- General discussion – Hurricanes in the Far East and Australia
- Airshows – Amberley Airshow 2008
- Army aircraft – Retirement of Iroquois
- RAAF aircraft – New H Model Herc colour
- Navy aircraft – Temporary suspension of Sea King operations, Beginning of Fleet Air Arm — Royal Australian Navy
- NZ Military Aircraft and aircrew – New webpage admin required

- Feedback – provides a place for feedback, questions etc
- ADF Serials website updates – provides information on latest updates.

These boards can be accessed at http://www.adf-serials.com/invboard/

2007 Airshows

Defence Airshow 27-28 Oct 2007 - RAAF Edinburgh SA

The Defence Air Show is rotated around our major bases so that everyone in Australia gets a chance to see Navy, Army and Air Force aircraft in action periodically. The 2007 Defence Air Show will be held at RAAF Base Edinburgh, 20 minutes north of Adelaide in South Australia.

Flying In to RAAF Base Edinburgh The 2007 Defence Air Show welcomes general aviation enthusiasts flying in to RAAF Base Edinburgh, Adelaide, SA, for the show. Further details and an application form will be published on the defence website at a later date. For more information : http://www.defence.gov.au/raaf/airshow/index.htm

Temora Aviation Museum Flying Days

November 17-18

Check out their website for further information:

http://www.aviationmuseum.com.au/news/FlyingDates.cfm

ADF-Serials Webpage Administrators

Thank you to Ivan Prince

The ADF-Serials group would like to say thanks to Ivan Prince for his hard work over the years on the NZ Serials page. Ivan built the page from practically nothing. Everything we have on NZ Serials and images on our website is a result of the massive effort and commitment Ivan undertook during his time with the group. We will miss his contributions and thank him for the effort he has put in. If you are interested in NZ Serials and would be interested in taking over this page, please contact the ADF-Serials group.

Welcome to Dave Best – Lancaster page editor

A big welcome to Dave Best who recently joined us as the Lancaster page editor. Dave has recently completed some research on 463 Sqn. Dave's efforts can be found in the ADF-Serials section on "Other Aircraft".

Westland Wapiti Down Under

Paul McMillan posted the following information on the ADF-Serials message board: In the Autumn 2007 issue of the Air Britain Magazine Aeromilitaria, there is an 8 page article entitled 'The Westland Wapiti Down Under'. This has a detailed listing of all 43 Wapitis in Australia, with details of accidents, movements etc.... which has been put together with the aid of the RAAF Historical Section, Canberra.

RAAF Williams/Point Cook to remain in defence ownership and management

The Parliamentary Secretary to the Minister for Defence, Mr Peter Lindsay MP, announced today that Defence will retain RAAF Williams Point Cook as an open working heritage base

Mr Lindsay said Defence's future use of RAAF Williams Point Cook would balance the operational, heritage, and community needs of the base.

"RAAF Williams Point Cook holds an important place in the history of Australia's military aviation. Not only is it the home of the RAAF, it is also the longest continuously used Air Force base in the world," Mr Lindsay said.

"The significance of the heritage value of the Point Cook site is demonstrated by its recent nomination for listing on the National Heritage List – the highest level of heritage recognition in Australia."

RAAF Williams Point Cook currently attracts over 100,000 visitors a year. It has the potential to improve general public awareness of the aviation industry in Australia and Defence's aviation history in particular.

"I have agreed with a recommendation to separate the Defence operational and public areas of the base into discrete precincts with appropriate levels of access.

"The public precinct will accommodate authorised commercial leases that use spare capacity of the airfield, the RAAF Museum and heritage buildings, and the Point Cook Primary and Pre-schools," Mr Lindsay said.

RAAF Williams Point Cook will continue to be maintained by Defence as an operating airfield able to support military flying operations when required, as well as by the RAAF Museum.

The airfield will continue to be used, under arrangement, by civilian flying operators, although over time, commercial arrangements will be put in place similar to those at other airfields.

"Defence is taking steps to ensure that RAAF Williams Point Cook is a safe environment in which the Australian Defence Force, licensed stakeholders and the general community can coexist, while also maintaining the estate and the environment in a manner which improves the many heritage values of the site."

Defence will conduct a series of stakeholder briefings today and tomorrow.

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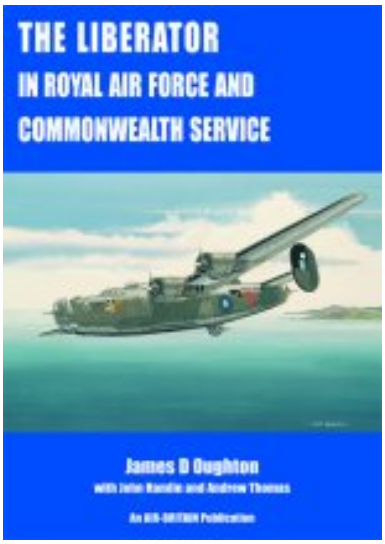
Thanks to Brendan Cowan for posting this defence media release on the message boards.

The Liberator in RAF and Commonwealth service
By James D Oughton, with John Hamlin and Andrew Thomas
In this landmark book the author has covered in considerable detail the technical features and operational history of the Consolidated Liberator in the service of the Royal Air Force and four Commonwealth air forces. Histories of every individual aircraft and of the squadrons and other units which operated them form a large part of the book. A4 Hardback, approx 320 pages including 16pp in colour. AVAILABLE MID/LATE OCT ISBN: 9780851 303628



It's going to be expensive STG 43.50 to non-members and STG 29.00 to members. (Ed 43.50 STG is approximately A$100.00)

For more info their website is www.air-britain.com/index.html and you can follow the link to their E-commerce secure site for details of books. and costs.

Many thanks to Joe Barr for providing details of this new book.

The Avro Lincoln – Rod Farquhar

By 1943 the designers were looking at ways of improving the already highly successful Lancaster bomber. Plans called for the use of the new Merlin powerplants with their two stage two speed superchargers and more streamlined annular radiators. To compensate for the extra forward weight the aft fuselage was extended by almost nine feet. The wing span increased to 120 feet with subsequent extra fuel capacity and the defensive armament was upgraded.

So radical were the overall changes that it was decided to give the aircraft a new designation, The Avro Type 694 Lincoln.
Although the prototype Lincoln made its first flight on 9th June 1944 reluctance to disrupt the Lancaster production lines at that critical stage of the war meant that Lincoln production did not get under way till 1945 and, they did not enter Squadron service till after the war.

Post WWII the RAAF underwent a considerable reorganisation, men were de-mobbed, squadrons disbanded and aircraft scrapped on a wholesale level. In 1948 No.82 Bomber Wing was reformed at Amberley, comprising Nos.1, 2 and 6 Squadrons, they were to be equipped with the Mk.30, an Australian version of the Lincoln built by GAF in Victoria. The first aircraft,

A73-1, made from imported components, as were the next 4 aircraft had its test flight in March 1946, a total of 73 Lincolns were completed by1953

Number 2 and 6 Squadrons were the first to be equipped, 6 becoming the OCU and 2 the operational unit, 1 Squadron received its aircraft shortly thereafter. By 1953 2 Sqn. had converted to Canberras followed in 1955 by 6 Sqn.

No.1 Sqn on the other hand retained it's Lincolns a little longer, in July 1950 it transferred to the RAF base at Tengah, Singapore to carry out strikes against the Communist Guerrillas on the Malay Peninsular, it remained there until returning to Australia in July 1958.

During the production run a number of changes were made to the specifications resulting in different marks of aircraft.A73-11to 25 were strengthened to allow a max. takeoff weight of 75,000Lb, A73-26 to 73 were further strengthened to allow MTOW of 82,000Lb, these would be Mk30As, the last 12 aircraft being converted to" Long Nose" Mk31s before production ceased.

Early use in England uncovered a problem with the three bladed propeller causing structural vibrations, this was overcome by fitting a four bladed unit. The Merlin 85B also proved to be unreliable, to such an extent that insufficient remained serviceable to allow normal operational flying, a short term fix was the use of Merlin 66 Spitfire engines at the out board stations (they had no auxiliary engine gearbox drives). This situation persisted until the arrival of the more robust Australian built Merlin 102.
In 1949 fourteen aircraft were modified to a "Long Range Navigation" standard, this added improved nav and autopilot equipment plus a recorder to plot and record the aircrafts exact position every minute. Crews were then sent on long-range missions of up to 13 hours, simulating a deep penetration bombing raid into Europe, very precise navigation was required and results assessed by data in the recorder post flight.

1949 also saw the RAAF realise the need for a dedicated Maritime Reconnaissance aircraft, various proposals were put forward but all seemed unworkable, it was not until 1951 that the lengthening of the nose by almost two meters resolved most of the obstacles. The extra space provided room for the three sonobuoy operators and their equipment without compromising the aircraft's capabilities. There were also a number of modifications made to the bomb bay to allow torpedo and life boat carriage and in the rear fuselage for the stowage and launching of various pyrotechnics. The Long Nose Lincoln would become the GR Mk.31. The first of these entered service with 10Sqn at Townsville in March 1953.

Changes were afoot again and in March 1955 A73-60 the first of ten MR versions was delivered to 10Sqn. These aircraft had changes to their internal equipment more in keeping with their maritime role, including a low-level bomb sight and updated radar capable of detecting a snorkelling submarine. By 1957 the mid upper turret was gone and two years later the .5 Brownings were removed from the nose turret.

The only other unit to operate Lincolns at the squadron level was 11Sqn. Based at Pearce in WA they flew Mk30s in the GR role, 1950/51 before re-equipping with Neptunes. Several other units operated aircraft at various time for special purposes, more detail of this will be given in the individual aircraft histories.

By the early 1960s they were all gone, either burnt on fire dumps or melted down in the scrappers furnaces, a sad end for such a versatile aircraft.

Model 84 A25A Shrikes in RAAF Service (A69)

By Gordon R Birkett@2007

In August 1938, a formal request was sent out to the aircraft industry calling for a new dive-bomber powered by the Curtiss Wright R-2600 air-cooled radial engine. Six companies had submitted proposals, with only two companies being selected to produce their designs in prototype form in January 1939, with those being Brewster with the XSB2A-1 (later known as the Buccaneer/Bermuda) and the Curtiss Wright with their XSB2C-1 (later to be known as the Helldiver).

The first Curtiss Wright Helldiver, XSB2C (BuNo1758) in flight during 1941 Credit: Curtiss

The US Navy Bureau of Aeronautics, including their own Philadelphia Aircraft Factory Engineers, heavily influenced both designs. The specifications included in having twice the range, twice the combat ordinance load and thirty percent faster speed of the Douglas SBD Devastator then entering US Naval Service.

Against this specification, two airframes had to fit on the standard size lift (40' x 48') when lowered into a carrier hanger. These requirements would have to be adapted to a workable design.

The SB2C Helldiver was a design that introduced new and innovate design features which included a internal Bomb bay, leading edge slats that deployed automatically when the gear was lowered, armour plate, powered rear turret (to be later deleted) and self-sealing tanks.

The programme had first begun to run into trouble in February 1940, when wind tunnel testing of models revealed a potentially excessive stalling speed, necessitating major wing redesign, which lead to the wing area being increased by 10 percent. By autumn, the major components of the prototype, which had been built in the barn, situated on the Ohio State University

fairgrounds, were being transported to the Curtiss-Wright factory at Buffalo, New York, for final assembly.

By November 1940, some 800 engineering changes had been made to the basic design (lead by Curtiss Chief Designer, Raymond Blaylock) of the XSB2C-1 prototype. These changes included the height of the vertical stabiliser due to longitudinal instability.

By this time, the US Navy had some 370 airframes on order even before the final assembly of the prototype. Even before the prototype XSB2C (BuNo1758) flew on the 18th December 1940 with Curtiss test pilot Lloyd Childs being at the controls, the US Navy had already ordered yet another 4000 aircraft. Seven weeks later, on landing approach on the 8th February 1941, the engine failed causing the aircraft to land short of the strip. Severely damaged, it would be months before the aircraft was repaired and re-flown with modifications introduced to overcome both engine and stability problems. Shortly after the prototype's resumption of flight-testing, again another accident grounded the aircraft after severe damage.

The utmost urgency was attached to rebuilding the prototype yet again, with the opportunity being taken to lengthen the forward fuselage by 12 inches and redesign and enlarge the vertical tail surfaces to alleviate the stability problem. By the 20th September 1941, the aircraft was ready for more tests, including its main role, dive-bombing.

On the 1st October 1941, the US Navy assigned the SB2C-1 the name of **Helldiver**; a name long associated with Curtiss naval dive-bombers of the twenties and thirties.

On the 21st December 1941 during a dive from 22000 feet, the prototype crashed after the right wing and tail failed and separated from the aircraft whilst trying to pull out of the dive. Fortunately, the pilot was able to parachute to safety. More re-design was needed in the airframe, and engine reliability improvements were needed. The production SB2C-2 Helldiver by this time was to have more strengthening resulting in an all up weight (AUW) increase to 15000lbs fully loaded over the prototype's AUW of 10114lbs. Again, the height of the vertical stabiliser was increased.

Despite numerous problems, both in development and in use, the first USN SB2C Curtiss Helldiver operation by US Navy Dive Bomber Squadron, VB-17 from the USS Bunker Hill was on the 11th November 1943 when Two Carrier Task Forces struck Japanese shipping at Rabaul, sinking one carrier and damaging other ships. Latter by wars end, it would also be credited in shooting down some 44 Jap aircraft.

It would a Congressional Investigational Committee, chaired by Senator Harry Truman in 1943-1944 that would uncover the complete history of the finished product and program, albeit in the negative. Basically put, the aircraft should not have entered production until all design and performance issues were corrected or met.

US NAVY SB2C-4E's in flight 1945 in the Pacific. Known as the S.O.B. Class2 by the crews! Credit: US NAVY

Production of the SB2C-l totalled 978; one of these was converted to the single XSB2C-2 floatplane, another became the XSB2C-5 and two became XSB2C-6s. The SB2C-3, which began to appear in 1944, had the R-2600-20 engine with a four-blade propeller, while the SB2C-4 had wing fittings for eight 5-in rockets or up to 1,000 lb of bombs and, in the SB2C-4E version, carried radar.

Production by Curtiss totalled 1,112 SB2C-3s and 2,045 SB2C-4s. Then finally came some 970 SB2C-5s, starting in February 1945, with increased fuel capacity. Two XSB2C-6 prototypes had R-2800-28 engines and longer fuselages.

Added capacity for Helldiver production was provided at two Canadian factories; Fairchild produced a total of 300, designated XSBF-l, SBF-l SBF-3 and SBF-4E, while Canadian Car and Foundry built 894 designated SBW-l, SBW-3, SBW-4, SBW-4E and SBW-5, these models being respectively equivalent to their Curtiss-built counterparts. Some 26 Helldivers were assigned to the Royal Navy FAA under Lease-Lend arrangements were, in fact, CCF-built SBW-lBs) the suffix letter indicating Britain) and were equivalent to the Curtiss-built SB2C-1C.

The SB4C in Olive Drab, aka the USAAF and RAAF Curtiss A25A Shrike

The USAAF, ever searching after more modern types, had ordered on the 31st December 1940, a 100 SB2C-1A to be included with the Navy contract on Dec 31, 1940, to be known as the Curtiss A25 Shrike.

A-25A was to be standardized to the maximum extent possible as to be almost identical to the SB2C-1, but with larger main wheels and a larger pneumatic tail wheel.

The carrier arrester gear was deleted, but the folding wings were to be retained. In addition, Army radios and additional forward and underside armour plating were fitted. The first flight of an A25A was on the 29th September 1942

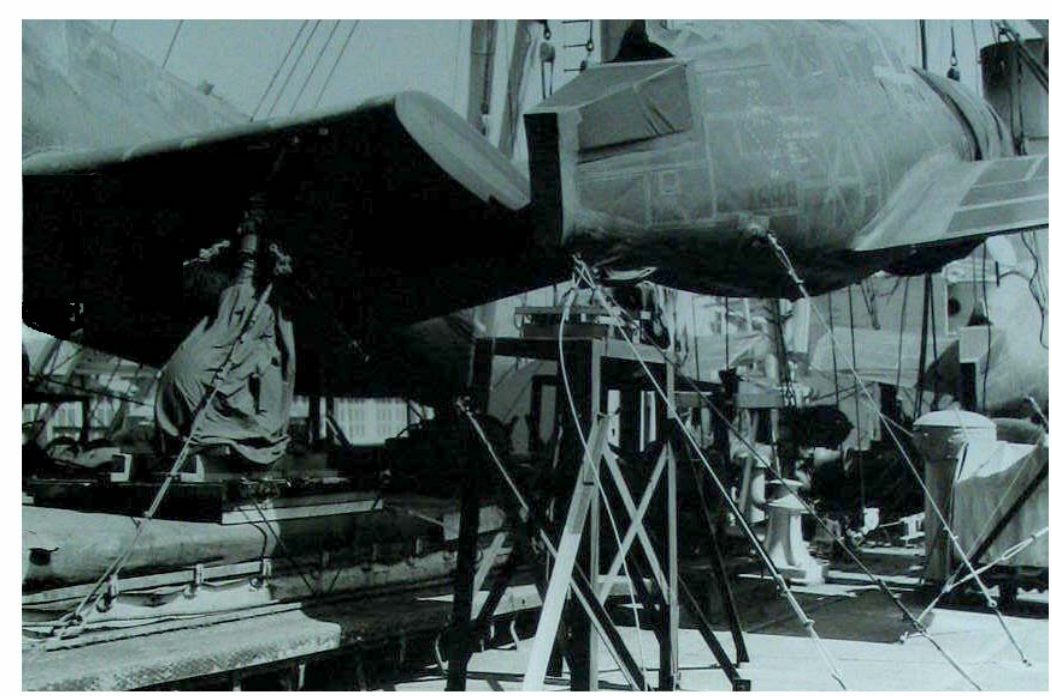
This was the aircraft that the RAAF were allocated in August 1943 under the Munitions Assignment Committee (AIR) (MacAir) Case Number 200 for 10 A25A-15CS and 140 A-25-

25CS model airframes to equip an OCU and 4 squadrons of dive-bombers. It is unclear whether this type was to supplement and/or replace the Vultee Vengeance in squadron service, which as a type was also suffering developmental problems in 1941-1943 periods. This resulted in several prolonged modifications to the Vengeance before it too could be delivered in quantity for service.

An early production A25A-5-CS pictured in flight, during late 1942. Credit USAAF

The RAAF Vultee Vengeance itself was a replacement aircraft for the troubled Brewster Bermuda (Buccaneer in US Navy parlance) that the RAAF had originally ordered in 1940 and cancelled in 1941 in favour of the Vengeance. Ironically, the Bermuda was the staple mate of the SB4C Helldiver ordered by the US Navy and FAA.
The first 10 airframes, A-25A-15-CS's under Indent 2225A, were delivered for initial conversion use pending the arrival of combat rated A25A-25CSs to Australia. Transferred from the SS Port Caroline berthed in Sydney as uncrated deck cargo to Richmond RAAF Base for erection by 2AD in late October 1943, were A25A-15CS's 42-79683 sequenced through to 42-79692 (CW Line numbers 4583 to 4592).

Of these 10 delivered to Australia only one airframe was erected and flown by the RAAF, and that was A69-4 (42-79686). In January 1944, coincidentally following the previously mentioned Congressional Investigational Committee findings, the RAAF Representative in Washington was directed to negotiate the cancellation of the remaining 140 A-25A-25-SC airframes, still held in America following advice from the Commander of the Far East Air Forces (USAAF).
Therefore the Munitions Assignment Committee (AIR) Case number 435 order reduced the allocated number from 150 to just 10 airframes on the 19th January 1944.



RAAF A-25A A69-6 starboard and #683(A69-1) on Port side deck of the SS Port Caroline in Sydney November 1943: Credit RAAF

High above St Louis, USA, a pictured RAAF A-25A-25CS, A69-29, was on a test flight. Credit Darren Crick

Some 28 A-25 airframes were held at Newark, New York by December 1943, pending the availability of shipping, with a further 32 A-25 airframes in transit from St Louis to Newark for preparation for their crating.

A further 11 A-25 airframes were being prepared at St Louis. In all, it seems that some 71 airframes were wearing RAAF Roundels with their serials marked on the airframe, A69-11 to A69-81.

RAAF Shrike A69-4 at 1APU Laverton Victoria in early 1944. Notice the unusual fuselage Roundel of Yellow/Blue /White and the Standard 1942 RAF Fin Flash. Credit: RAAF

The RAAF Representative in Washington was also advised to negotiate the return of ten already Australian delivered A25A-15CS s and spares holdings to the Far East Air Forces. This became a protracted affair that dragged on for much of 1944.

Finally an agreement was made on the 2nd November 1944, by which the US Government, on the basis that these aircraft being supplied under Lend Lease, had remained at all times the property of the USAAF. Therefore they would be received and accepted back by the Far East Air Forces at their Townsville Depot along with all of the spares supplied. Only A69-4 was flown there from 5AD, Cootamundra.

In the US of A, following a configuration review for the US Navy, a program was set up to send the 140 A-25A-25SC RAAF aircraft through modification centres operated by NAF Roosevelt Field, Consolidated-Vultee, and Delta Airlines.

These now designated Curtiss SB2C-1A Helldivers were then issued to Marine Corps VMSB squadrons for operational training. By the end of 1944, all SB2C-1As had been modified and delivered. Transfer to the Navy's Operational Training Command had begun. They served with VMSB-132, -144, -234, -344, -454, -464, -474, and –484, destined for a non-combat role in the United States.

The eventual history of the first 10 RAAF A-25As remains a mystery, post 1944. Though a *shaky* lead on VMSB-244 apparently has it using SB2C-1As in the Philippines, though other records state these were used only in the USA. I wonder?

Another shot of A69-4 in flight: Source RAAFA Aviation Heritage Museum of WA

USAAF A-25A Serials:

41-18774/18783 Curtiss A-25A-1-CS
41-18824/18873 Curtiss A-25A-10-CS
41-18784/18823 Curtiss A-25A-5-CS
42-79663/79672 Curtiss A-25A-10-CS
42-79733/79972 Curtiss A-25A-20-CS
42-80133/80462 Curtiss A-25A-30-CS
41-18784/18823 Curtiss A-25A-5-CS
41-18774/18783 Curtiss A-25A-1-CS
41-18824/18873 Curtiss A-25A-10-CS
42-79673/79732 Curtiss A-25A-15-CS
42-79933/80132 Curtiss A-25A-25-CS

US.NAVY SB2C-1A (Ex-A-25A) Bureau Numbers

The Bu Nos of the Curtiss SB2C-1A Helldivers were:

Bu No 75218 to 75588

These are numbered in sequence with FY Serials of A25As transferred from U. S. Army

42-79977 to 42-80116 (Perhaps the ex RAAF 140 A-25A-25-CS's, A69-11 to A69-150)
42-80191 to 42-80192
42-80195 to 42-80423
Bu No76780 to 76818
42-80424 to 42-80462

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NB: Though every effort is made for authenticity, Profiles are guides only.
Sources:

- Aircraft Allocations & Shipments. NAA
- A69 Shrike File. NAA
- Joe Baugher USAAF/USN Serials
- EE88 Aircraft Cards

On This Day (August/September):

4 Aug 90 **F-18A A21-42** 75SQN pilot WGCDR Ross Fox crashed near Katherine, NT after a mid air collision with A21-29 at about 30,000 ft. It is believed that WGCDR Fox died instantly as a result of the collision, which saw the outer portion of A21-29's port wing flown by FLGOFF David Smith slice through the forward fuselage of A21-42. FLGOFF Smith was able to land safely at Tindal, however, WGCDR Fox's aircraft crashed about 35 km from Katherine at a place ironically called Hornet Hill.

13 Aug 35 **Wapiti A5-15** 1FTS with crew FLTLT W. Rae (QFI) and AirCdt Laws crashed after striking wires after take off and caught fire.

13 Aug 40 Air Crash in Canberra which killed three United Australia Party ministers and the Chief of General Staff.

20 Aug 43 Brock's Creek bombed by Japanese aircraft Brock's Creek was bombed by eight times by Japanese aircraft during 1943.

7 Sep 43 Liberator crash kills 59 Australians. A liberator crashed on take-off at Port Moresby hitting five trucks carrying men of the 2/33rd Battalion; 15 were killed instantly, 44 died of their injuries, and 92 were injured but survived

9 Sep 50 Wing Commander L Spence killed Wing Commander L Spence, 77 Squadron, killed during a ground attack mission over Angang-ni, Korea.

13 Sep 93 **F-111C A8-127** 1 SQN with crew FLTLT Jeremy McNess O324693 (Pilot) and FLTLT Mark Cairns-Cowan O234519 (Nav) crashed near Guyra, NSW, after a simulated night attack on the Guyra Meatworks

19 Sep 52 **Vampire Mk30 A79-586** pilot SGT H. Edwards. Whilst performing two aircraft formation manoeuvres SGT Edwards lost control and the aircraft spun into the ground near Medowie, NSW.

20 Sep 12 Official approval given for the establishment of a military Central Flying School. Official formation of the Australian Flying Corps. The Australian Flying Corps

went on to serve in Mesopotamia, the Middle East, and the Western Front and was the forerunner of the RAAF.

Thank you to Dean and his aircrew losses research, the Australian War Memorial's "This Month" and the RSL Diary for dates for this month's On this Day segment- Jan

If you have something for the newsletter or would like to submit an article, query or image, please use the following link:
http://www.adf-serials.com/contact